

# Translator and Interpreter Training Methodology: The Ukrainian Dimension

edited by Leonid Chernovaty



Banská Bystrica 2025

## **Translator and Interpreter Training Methodology: The Ukrainian Dimension**

### ***Edited by:***

Leonid Chernovaty

***Authors:*** Oleksandr Bondarenko, Kateryna Bondarenko, Leonid Chernovaty, Martin Djovčoš, Yevhenii Dolynskyi, Liudmyla Hureieva, Oleksandr Kalnychenko, Natalia Kovalchuk, Alla Martyniuk, Anna Monashenko, Alla Olkhovska, Oleksandra Popova, Maria Pysanko, Oleksandr Rebrii, Kateryna Shevelko, Natalia Zinukova.

### ***Reviewers:***

Prof. Iryna Zadorozhna, DrSc (Ternopil Volodymyr Hnatiuk National Pedagogical University)

Prof. Liubov Zenia, DrSc (Kyiv National Linguistic University)

### ***Language editor:***

Alex Millington

### ***Publisher:***

Belianum. Matej Bel University Press, 2025

This edited volume was also published electronically in the DSpace Repository of the University Library of the Matej Bel University in Banska Bystrica at:  
<https://doi.org/10.24040/2025.9788055722580>

The authors are solely responsible for the contents of the papers and their language revision.

The publication of this work was supported by the EU Next Generation EU through the Recovery and Resilience Plan for Slovakia under project No. 09I03-03-V01-00148.

**ISBN 978-80-557-2257-3 (print)**

**ISBN 978-80-557-2258-0 (online)**

**DOI 10.24040/2025.9788055722580**

<https://doi.org/10.24040/2025.9788055722580>



This publication is distributed by the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International Licence CC BY-NC-ND.

# CONTENTS

<b>PREFACE BY THE EDITOR.....</b>	<b>5</b>
<b>INTRODUCTION (Martin Djovčoš).....</b>	<b>9</b>
<b>SECTION 1. BACKGROUND .....</b>	<b>11</b>
Chapter 1. Early ideas on translator and interpreter training in Ukraine: 1930s (Oleksandr Kalnychenko*) .....	11
Chapter 2. The methodology of translator and interpreter training in Ukraine: history and the state of the art (Leonid Chernovaty).....	25
<b>SECTION 2. SYSTEMIC RESEARCH .....</b>	<b>39</b>
Chapter 3. The system of the university training of translators and interpreters from/to Chinese (Oleksandra Popova).....	39
Chapter 4. The system of translator and interpreter training within the university information and educational environment (Yevheniy Dolynskyi).....	70
<b>SECTION 3. THEORETICAL FOUNDATIONS OF TRANSLATOR AND INTERPRETER TRAINING .....</b>	<b>94</b>
Chapter 5. Retrospective analysis of the translator's nomination or how to find sense in nonsense (Oleksandr Rebrii) .....	94
Chapter 6. Grammatical and stylistic translation problems in the Ukrainian-English contrastive courses (Alla Martyniuk) .....	122
Chapter 7. A model of the student interpreter's technological competence (Alla Olkhovska, Leonid Chernovaty) .....	153

Chapter 8. The system of exercises and tasks in teaching specialized translation and interpreting (Leonid Chernovaty, Natalia Kovalchuk) .....	169
Chapter 9. Organizational and methodological aspects of translation practice (Oleksandr Bondarenko, Kateryna Bondarenko) ...	182

**SECTION 4. THE METHODOLOGY OF TRANSLATOR AND INTERPRETER TRAINING..... 205**

Chapter 10. Teaching interpreting in the domain of international economics (Natalia Zinukova).....	205
Chapter 11. Teaching bilateral translation in the domain of Agriculture (Anna Monashnenko).....	238
Chapter 12. Translation and didactic aspects of terminological problems (Leonid Chernovaty) .....	259
Chapter 13. The teaching of heterovalent translation (Maria Pysanko, Kateryna Shevelko) .....	277
Chapter 14. Distance teaching of interpreting in the domain of power engineering (Liudmyla Hureieva) .....	304
Authors' profiles .....	331

\*Transliteration from Ukrainian has been carried out according to the current norms through the programme <http://www.ukrlit.org>

## PREFACE BY THE EDITOR

It is generally believed that the world's first centres for the institutionalised training of translators were established in the 1930s. However, few people know that Ukraine was one of the first countries to host these processes. At the time, Ukraine was a republic within the Soviet Union, but it had strong national traditions in the field of translation (for more details, see Chapter 1 of this volume). Suffice it to say that the world's first book on translation theory and practice, *Theory and Practice of Translation* (1929), was published in Ukraine, in Kharkiv, in Ukrainian, and its author was a young lecturer at Kharkiv University, Oleksandr Finkel. The field of Ukrainian translation studies and the wider translation community, along with the Ukrainian nation as a whole, faced significant challenges during the Soviet era. This period saw the loss of many of the country's leading figures from the 'shot revival' of the 1930s, with further setbacks in the Gulag camps of the 1940s and 1950s. In the 1960s and 1980s, the Soviet Union was a melting pot where the communist authorities were attempting to turn its multinational population into a 'single Soviet Russian-speaking nation', stripped of its mother tongue and national identity. During this period of linguistic marginalisation, Ukrainian translation played a pivotal role in preserving the Ukrainian language and identity and became a crucial tool in nation-building (Strikha, 2006).

It can be hypothesised that this is the reason for the popularity of the translation profession in Ukraine. Until the end of the 1980s, the Soviet Union, for ideological reasons, severely restricted the opening of translation training programmes. In Ukraine, for example, only two universities (Kyiv and Kharkiv) were permitted to train translators. After these restrictions were lifted, however, such programmes were established in more than 90 Ukrainian universities (see Chapter 2 of this volume).

The growth of the network of such educational institutions has brought to the fore the question of developing a scientifically rigorous methodology for teaching translation as a discipline. Obviously, the methodology of such training has a historical precedent, as the institutionalised training of translators has been a practice in Ukraine since at least the early 1960s. However, it was mainly an intuitive methodology based on teaching experience, which is always

the basis for the development of a methodology as a science. This process involves first generalising experience and then developing a theory, which is then tested through experimentation. The earliest known development of translation methodology as a science can be traced back to the early 2000s (see chapter 2 of this monograph), when the first doctoral and then post-doctoral theses on translation methodology were written.

For a number of reasons, primarily the paucity of publications in English, the research findings of Ukrainian scholars are largely unknown to the global translation community. It is the intention of this English-language volume to introduce the content of some of these studies to a wide range of readers around the world. It was originally intended that the volume would include all the specialists who had defended their post-doctoral theses on translator and interpreter training methodology (see the full list in Chapter 2), as well as the authors of some doctoral theses in the same field. However, the Russian invasion of Ukraine necessitated adjustments to the original plan, resulting in a significant shift in the priorities of many specialists and rendering the original plan unworkable in its entirety. As a result, a significant proportion of the work presented in this monograph was produced by the Mykola Lukash Translation Studies Department of V.N. Karazin Kharkiv National University, which, in the opinion of the editor of this volume (see Chapter 2), is the leading centre in Ukraine in translator and interpreter training methodology. However, other research centres of translation/interpretation teaching theory (Alfred Nobel University in Dnipro, K. D. Ushynsky South Ukrainian National Pedagogical University in Odesa, Kyiv National Linguistic University, National Technical University of Ukraine ‘Igor Sikorsky Kyiv Polytechnical Institute’, National University of Life and Environmental Sciences of Ukraine in Kyiv, Kyiv State University of Trade and Economics, Khmelnytskyi National University, Volodymyr Vynnychenko Central Ukrainian State University in Kropyvnytskyi) are sufficiently represented to consider this work as an illustrative cross-section of the current state of development of translator and interpreter training methodology as a science in Ukraine.

The edited volume is divided into four sections. The introductory section consists of two chapters and provides a brief overview of the history of translator and interpreter training methodology as a science in Ukraine, as outlined by Oleksandr Kalnychenko, and the current state of its development, as described by Leonid Chernovaty.

The second section consists of two chapters and is devoted to systematic research into the principles of training interpreters and translators from/into Chinese (Oleksandra Popova) and teaching translators in the context of the university information and educational environment (Oleksandr Dolynskiy).

The third section, consisting of five chapters, includes studies of the theoretical foundations of the methodology of translation education in connection with related fields of knowledge, namely translation studies (Oleksandr Rebrii) and linguistics (Alla Martyniuk). The section also includes studies of the concept of professional competence in translation (Alla Olkhovska and Leonid Chernovaty), a system of exercises for translator and interpreter training (Leonid Chernovaty, Natalia Kovalchuk), as well as an examination of the links between translation teaching methods and the translation industry (Oleksandr Bondarenko and Kateryna Bondarenko).

The fourth section (five chapters) deals with specific issues of the methodology of translator and interpreter training. These include the teaching of translation and interpreting in the fields of international economics (Natalia Zinukova), agriculture (Anna Monashnenko), terminology (Leonid Chernovaty), heteroalent translation (Maria Pysanko and Kateryna Shevelko), and distance translator training in the field of power engineering (Liudmyla Hureieva).

The volume concludes with some brief information on each author.

Leonid Chernovaty, Editor

## **References**

Strikha, M. (2006). *Ukrainskyi khudozhnii pereklad: Mizh literaturoiu i natsiietvorenniam* (Ukrainian Literary Translation: between Literature and Nation-building). Kyiv: Fakt – Nash chas.

## **Acknowledgements**

The authors would like to express their sincerest gratitude to the Matej Bel University in Banská Bystrica (Slovakia) and the staff of the Department of English and American Studies (headed by PaedDr Alena Štulajterová, PhD) and, on a personal level, to the Associate Professor of this department, doc. PhDr Martin Djovčoš, PhD, for their invaluable assistance and support, without whom the compilation and publication of this volume would not have been possible.

The preparation and publication of this edited volume was funded by the EU Next Generation EU through the Recovery and Resilience Plan for Slovakia under project No. 09I03-03-V01-00148.

# INTRODUCTION

This volume is special and unique for many reasons. It serves as a testament to the evolution of translation teaching methodology in Ukraine. The authors approach the subject from historical, systemic, linguistic, terminological, market, methodological and many other perspectives. One can conclude that no aspect of translator training is left untouched. In other words, it is a complex work that deserves its full right to exist, standing as a vital contribution to the growing body of literature in translation studies specifically in this part of the world.

Secondly, the book is a gesture of emancipation. It boldly declares that translator training in Ukraine is an independent field that exists outside the realm of the post-Soviet world. This assertion is not just a matter of pride; it signals a significant shift in how translation studies and educational practices are perceived on the international stage. Indeed, as the authors point out in the first chapters of the book, the oldest institutionalized translation programs in Europe are to be found here – in Ukraine. This historical context enriches the narrative of translation studies and illuminates the essential role Ukraine has played in its development.

I am very glad that the world of translation and interpreting studies has finally begun to acknowledge this fact and perhaps even to do justice to the history of translation studies. This recognition is long overdue, yet it is encouraging to witness an increasing awareness of Ukraine's contributions to the field. However, I must say that although our Ukrainian colleagues have been talking about this at various conferences across Europe, it took a war and unprecedented brutal Russian aggression for them to finally be recognised and listened to.

While the contributions of our Ukrainian colleagues deserve acknowledgment, it is essential to approach the chapters presented here with a critical eye. I am not saying that the chapters do not deserve our critical evaluation; on the contrary, they are an excellent starting point for the discussion of their conclusions, methods, and proposals. Each author brings their own unique perspective, encouraging debate and exchange among readers and scholars alike.

This book provides a comprehensive overview of the work done in the field of translator training in Ukraine, the breadth of which is truly impressive. The insights presented are not only relevant within the Ukrainian context but may also resonate with global translation practices. Moreover, the fact that it is written in English ensures that this important work is accessible to a much wider audience, breaking down barriers and fostering international scholarly exchange. By disseminating knowledge in English, the authors invite global readers to engage with the rich history and contemporary practices of translator training in Ukraine.

In the words of J. S. Holmes, “let the meta-discussion begin.” This phrase encapsulates the call to dialogue that the book embodies. Overall, this book stands as a landmark in the field, representing both the legacy and the vibrant future of translator training in Ukraine and beyond.

doc. PhDr **Martin Djovčoš**, PhD,  
Matej Bel University in Banská Bystrica (Slovakia)

# SECTION 1. BACKGROUND

## CHAPTER 1 EARLY IDEAS ON TRANSLATOR AND INTERPRETER TRAINING IN UKRAINE: 1930s

Oleksandr Kalnychenko

### **Abstract**

This chapter presents an account of the earliest academic institution to offer translation courses, which commenced in the 1930s. The Ukrainian Institute of Linguistic Education, established in Kyiv (with a branch in Kharkiv) in May 1930, represents a pioneering initiative in this field. The article presents new archival findings and offers an analysis of the content of two syllabi in translation studies. The inaugural course, entitled "Translation Methodology," was developed by Mykhailo Kalynovych and targeted towards second-year students for the 1932/33 academic year in Kyiv and Kharkiv (date of signing: September 6). The second course syllabus, entitled 'Metodyka perekladu' (Methodology of Translation), was developed by Mykola Zerov for the same-year students of that Department (date of signing: 9 September 1932) in Kyiv. Additionally, the article offers concise biographical information on the pioneering scholars who laid the foundations for the emerging discipline of translation studies several decades before its formal recognition (Mykola Zerov and Mykhailo Kalynovych). Furthermore, it delves into the recommended reading lists included in the syllabi.

**Key words:** Mykhailo Kalynovych, Mykola Zerov, translation studies syllabus, translation teaching, Ukrainian Institute of Linguistic Education.

### **1. INTRODUCTION**

The second quarter of the twentieth century saw the genesis of institutionalized translator training. According to Dorothy Kelly (Kelly, 2005: 8), who based her data on the information officially provided by the institutions, “the oldest of the institutions devoted to generalist translator (and/or interpreter) training are the Moscow [State] Linguistic University (ex-Maurice Thorez Institute, founded on July 10, 1930), the Ruprecht-Karls-Universität Heidelberg (1933), the Université de Genève (1941), and the Universität Wien (1943)”. Yves Gambier (Gambier, 2018: 183) adds to this list the schools in Ottawa (1933) and McGill (1943) with their English and French programs founded before the 1969 Official Languages Act.

The Ukrainian Institute of Linguistic Education, mentioned neither by Kelly nor by Gambier, was founded in Kyiv (with its branch in Kharkiv) on the 31<sup>st</sup> of May, 1930 (Protokoly, 1930), which is more than a month before the Moscow Institute for New Languages. Individual language departments scattered across the different higher educational institutions of Ukraine were unable to cater for the increasing demand for translation specialists. The purpose of the new institute, set upon the basis of the philological units of the Kyiv Institute of Public Education and Kharkiv Institute of Public Education, was to prepare “highly qualified teachers of foreign languages and literatures... and translators of scientific, technical, and literary works on the basis of general and special scholarly training in one professional language and literature and at least one more in addition, mastering practical skills in both the languages, and in one – to perfection” (Misechko, 2013: 30). In the first year the institute’s structure consisted of three schools (faculties) – of the Germanic languages, of the Romance languages, and of the Slavic languages – with five divisions (German-English; English-German; German-Yiddish; French-Romanian; Polish-Czech) (Kalnychenko & Kamovnikova, 2020: 148). 256 students of the basic divisions and 128 students of the rabfak (literary “workers’ faculty”, a type of educational institution aimed at preparing Soviet workers to enter Universities) started the 1930/31 academic year (Idem). Although the plan was to enrol 355 students of the basic divisions and 180 students of the rabfak, with the total number of 535 trainees.

In the 1931/32 academic year, the Ukrainian Institute of Linguistic Education had twelve departments, including those of The History of Western Literature, Pedagogy, Theoretical Linguistics, and Translation Studies (Misechko, 2013: 33). The curriculum of translation section included several translation disciplines: a) Methodology for translation (Kalynovych), *Metodolohiia perekladu*, 24 hours, for the 2<sup>nd</sup> year students; b) Methods of technical translation, 96 hours (the lecturer is unknown), for the 2<sup>nd</sup> year students; c) Special Methodology of translation (Literary translation, Zerov), *Metodyka perekladu*, 60 hours, for the 2<sup>nd</sup> year students; d) Translation from a “professional” (the main) foreign language, 180 hours; e) Translation into a professional language, 36 hours, for the 3<sup>rd</sup> year students; f) Translations from an additional (the second foreign) language, 72 hours, for the 3<sup>rd</sup> year students; g) Business correspondence, 48 hours, for the 2<sup>nd</sup> year students; h) Methodological introduction to the study of terminology. It also foresaw

500 hours of internship (Misechko, 2013: 31; Kalnychenko & Kamovnikova, 2020: 148).

In the 1932/33 academic year, the UILE had eleven departments. Among the chairs – Mykola Zerov (department of translation theory and history), Mykhailo Drai-Khmara (department of the Slavic languages), Stefan Savchenko (department of literature studies) and Mykhailo Kalynovych (department of theoretical linguistics). Language departments were headed by Fromhold Meyer (German), Marianna Levenberg (English), Maurice Cartier (the Romance languages).

It was Taras Shmiher who attracted the attention of the Ukrainian scholarship to two valuable manuscripts important for the history of translation studies and translator training, and kept in the archive of Hryhoriy Kochur Literary Museum in Irpin' (Shmiher, 2009: 104-105; 304-307): the syllabus to the theoretical course “(General) Translation Methodology” compiled by Mykhailo Kalynovych for the UILE for the 1932/33 academic year (dated – 5 September, 1932) and the syllabus to the theoretical course “Special Translation Methodology” compiled by Mykola Zerov (dated by 9 September, 1932) as well as Zerov’s handwritten notes to that course. (Hryhoriy Kochur (1908 – 1994) was a Ukrainian poet, translator, man of letters, former political prisoner, civic activist, and a student of Mykola Zerov). Maksym Strikha and Yuliya Dzhuhastrianska copied the syllabus and published it with their introductory foreword (Dzhuhastrianska & Strikha, 2015). The second syllabus by Zerov was prepared for publication by Lada Kolomiyets (Kolomiyets, 2021a) (For its discussion in details see Kolomiyets, 2020; Kolomiyets, 2021b; Kolomiyets, 2023).

The rationale of this article is to supplement modern historical and pedagogical knowledge with previously unknown archival data on the content of the translators’ training process at the UILE. In the article, we shall focus on the programs “Translation Methodology” and “Special Translation Methodology” by Ukrainian specialists Mykola Zerov (1932) and Mykhailo Kalynovych (1932). Another objective of the article is to make those syllabi available to the international readership, thus contributing to building up the unified history of translation thought and creating a common ground for the joint effort of researchers in the development of the discipline.

## 2. FINDINGS

The newly compiled practical translation programs of the early 1930s contributed to the development of translation theory, as the growth of practical knowledge required further systematization and analysis. The Ukrainian Institute of Linguistic Education was the first to offer programs in translation. These translation programs addressed a wide range of issues that extended far beyond purely practical concerns. The pioneering efforts of the Ukrainian university to build up comprehensive academic courses both in translation practice and translation theory are especially notable in light of the political and social context of their activities, the growth of control over education and publishing, and the decrease in international contacts.

**a. Key figures in translation theory teaching.** Before proceeding to the content of the first academic programs of translation theory it would do well to make a few necessary remarks about the people behind them.

**b. Mykola Zerov** (1890 – 1937), a prominent Ukrainian literary historian and critic, Ukrainian poet, translator, and translation scholar, was one of the leading figures of the Executed Renaissance. He was also an informal leader of “the Neoclassicists” – a literary movement of the 1920s, disdainful of “mass art”, didactic writing, and propagandistic work (Hordyns’ky, 1993). Famous for his lectures on the history of Ukrainian literature, Zerov was a professor and then chair of the Department of Ukrainian Literature at the Kyiv Institute of People’s Education (Dzhuhastrianska & Strikha, 2015: 133). In the beginning of the 1930s, he taught the theory of translation at the Ukrainian Institute of Linguistic Education (Derzhavyn & Koshelivets, 2020), which is how he eventually got appointed chair of the new Department of Translation Studies at this institution in October 1932 (Dopovidni, 1932: 18). From October 1930 to October 1933 Zerov was a Professor of UILE, and from October 1932 he was Chair of the translation theory and history department. According to Kochur (Kochur, 2008: 345), Zerov delivered lectures not only in translation methodology, but also in Ukrainian stylistics. Zerov was also active as a translator, focusing mainly on ancient Roman poetry (Catullus, Virgil, Horace, Lucretius, Ovid, Propertius, Martial, etc.). In addition, his translation output includes texts as varied as Pushkin’s *Boris Godunov* and *The Shot* and Juliusz Slowacki’s *Mazepa*, and French poets ranging from Ronsard and du Bellay to Baudelaire and the French school of Parnassian poets (de Heredia, Leconte de Lisle) (Kolomiyets, 2013: 199-217; Kochur, 2008). Of all Zerov’s articles and reviews devoted to translation

issues, his essay “On the Matter of Verse Translation,” (Zerov, 1928) turned out to be especially important, as it is the summation of the author’s thinking regarding translation. In this influential article, Zerov reviews the progress of Ukrainian translation from the late 19th to early 20th centuries. He outlines his standards for verse translation, significantly advancing the theory and practice of Ukrainian verse translation to overcome its colonial limitations. Zerov utilized the best theoretical resources available and suggested them to his readers. According to (Kalnychenko, 2011), among the topics of interest for contemporary researchers in translation studies is also Mykola Zerov’s examination of translations as an integral part of the national literature and their function in nation formation in his manual of 1924 (Zerov).

The program of September 3, 1932, was signed by Kalynovych – who chaired the department of Theoretical Linguistics at the UILE at that time (Dopovidni, 1932: 18). Mykhailo Yakovych Kalynovych (1888-1949) was a distinguished Ukrainian linguist and Sanskrit scholar who became an academician of the Ukrainian SSR in 1939. Born in Podillia to a priest, he pursued his studies at St. Petersburg University and graduated from St. Volodymyr’s University in Kyiv. There, he began teaching courses in comparative grammar, linguistics, and Sanskritology in 1916. In 1921–1933, he chaired the Department of General Linguistics at the Kyiv Institute of People’s Education (former St. Volodymyr University). From 1924, he also worked at the All-Ukrainian Academy of Sciences for the Department of Linguistics, which later became an academic institute of linguistics in 1930. In the final years of his life, Kalynovych served as the director of this institute. Known primarily as a compiler and editor of dictionaries, Kalynovych was also a brilliant translator of prose (Joseph Conrad’s *The End of the Tether*, H.G. Wells’ *The Country of the Blind, and Other Stories*) and drama (Chekhov’s *The Cherry Orchard*, Maxim Gorky’s *Enemies*) (Kolomiyets, 2013: 404-410). The level of M. Kalynovych as a translator was highly appreciated by his student, later the prominent Ukrainian translator and translation scholar Hryhoriy Kochur, who placed him among the great prose translators of the 1920s and 30s right after Valerian Pidmohylnyi (Kochur 2008: 121; 452). In 1924, Kalynovych published an essay titled “Ways of Modern French Poetry,” with translations by Oswald Burgardt. This essay inspired the idea for an anthology of new French poetry by Zerov and Savchenko, although political circumstances prevented its realization. In the mid-1930s, Kalynovych reviewed the renowned anthology *Ancient Literature*, compiled by academician Oleksandr Biletskyi (Dzhuhastrianska

& Strikha, 2015: 133). This anthology included translations by Zerov, who by then had been executed. Despite this, Zerov's wife received a proper royalty for the translations. This was an act of great civic courage for both the compiler and the reviewer (Strikha, 2006: 206).

In later years, some of the “angry young Sixtiers” criticized the Academician Kalynovych for his role as the editor of the six-volume Russian-Ukrainian Dictionary (1948), claiming it “artificially impoverished the Ukrainian language.” However, this dictionary should be evaluated not against the dictionaries of the 1920s, which were created during the relatively liberal period of “Ukrainization,” but against the context of the late 1930s. During that time, even common Ukrainian words like “керувати”, “найвищий”, “наймит”, and “крамар” were labelled “nationalist” in a special article in the communist newspaper *Pravda*. From this perspective, the 1948 dictionary was a significant step toward restoring the lexical richness of the Ukrainian language (Dzhuhastrianska & Strikha, 2015: 133-134).

**c. The syllabus to the theoretical course “Translation Methodology” compiled by Mykhailo Kalynovych for the Ukrainian Institute of Linguistic Education for the 1932/33 academic year.** The course was a twenty hour long lecture course for the second-year students, with an additional four academic hours set aside for the so-called “conferences” (seminars), the first of which would be held after eleven hours of lectures and the second at the end of the course. The course syllabus on “Translation Methodology” bears the imprint of the era when, after the Union for the Liberation of Ukraine (SVU) show trial in 1930, which was used as a tool to suppress Ukrainian nationalism and intellectualism, references to “Marxist-Leninist” science became mandatory. Kalynovych also had to refer to the pogromist party resolutions (including the 1927 Resolution of the Central Committee of the CPSU (b) U aimed at Ukrainian literature and culture, which stigmatized the Ukrainian literary movement known as the “neoclassics,”) (Dzhuhastrianska & Strikha, 2015: 132). So, a full two of the lectures were allocated for traditional political formalities: namely, the discussion of the role of translation in the proletarian society and proletarian dictatorship, Marxism-Leninism, and the resolutions of the Communist party. The remaining hours demonstrated a different approach towards the translation problem. The most considerable difference was that the course immediately introduced the new official term for the emerging discipline – *perekladoznavstvo*, verbatim “translation studies.” It is notable that the course

clearly distinguished and specified the difference between the theoretical aspects of translation theory and translation practice and included lectures on both. Kalynovych suggested a map of translation studies in Theme 2 under the title “Translation studies is the science of translation” (1 hour). Kalynovych distinguished between two main branches of translation studies: Theoretical Translation Studies and Practical Translation Studies. Kalynovych divided Translation Studies into a theoretical aspect (methodology of translation, history of translation, and history of translation thought) and a practical aspect (general theory of translation, special theories of translation from a foreign language into the mother tongue and from the mother tongue into a foreign language, and the study of cliché and stereotypes of official speech). Kalynovych also expressly distinguished between the object of translation (lexical, morphological, syntactical, and phonetical features, as well as style and language functions) and the object of translation studies, and discussed them in different lectures. It is quite obvious that Kalynovych (and Zerov) saw translation theory as a separate scholarly discipline. The lecture course outline included such theoretically mandatory points as the definition of translation, the object of translation studies, and translation and its cross-disciplines (linguistics, philology, literary studies, history of class struggle, national studies). It addressed such issues as translation dialectics, equivalence, and social functions.

The course stressed the importance of theory and practice, as well as the “genetic aspect of the science of translation” (Dzhuhastrianska & Strikha, 2015: 134) and the social functions of translation. Interestingly enough, the social parameters of translation were referred to in the course at several occasions. They were initially outlined in the first topic of the section entitled “Translation as a weapon of class struggle” (Idem). Later they were addressed in detail in topic 6, which in its whole was devoted to the sociolinguistic issues of translation including issues such as the popularization of Ukrainian culture, and even “the positive effect of proletarian literature translations into Esperanto” (Idem).

Kalynovych particularly highlighted the fact that the emerging discipline of Translation Studies was yet insufficiently equipped with literature. The lectures addressed the studies of existing literature in translation several times: thus, topic 4 was entirely devoted to the studies of the history of translation thought, and topic 5 to the perspectives on the development of the discipline and the revision of contemporary literature on the subject.

Quite notably, Kalynovych allocated three academic hours to the discussion of the evolution of translation thought, from pre-capitalist societies to the “bourgeois classifications of translations” of the beginning of the 20 century (Idem). This close attention to the history of translation thought drew up a substantial historical background for further contemporary research. In his program, Kalynovych pointed out several times that the students’ lecture notes were supposed to become the main source for further reading and revision, especially for the lectures, which directly related to language issues and the problems of rendering. Kalynovych and Zerov were clearly determined to develop the discipline in the course of its teaching, engaging colleagues and students and building up the methodology and theory based on their experience and the academic community’s response.

Topic 7 dealt with the problem of accuracy in translation” (2 hours) including such issues as translation equivalent to the original and inaccurate translation; the class and professional face of a translator; the different degrees of objectivity in bourgeois and proletarian translation and the resulting conclusion that proletarian translation was the single objective form; the problem of using old translations for reprints; translation from translation; and the principles of editing translated literature harmful to the working class (Idem). While the flaws of violent Soviet ideology can be endlessly debated, the effort to embrace global cultural achievements, share our own, and advance Ukrainian culture from a position of equality rather than inferiority, remains relevant in today’s scientific and literary discussions.

Lectures on practical issues raised the problems of translation management – intended to create the conditions for the production of the high-quality target text, and the problem of collaborative translation, proofreading, and editing. Let us consider as an example Topic 8. “Organization of work around translation” (1 hour). The lecture discussed the planning of the translation repertoire necessary for the proletariat in its class struggle as well as the publishing activities in the field of translated literature of the Soviet publishing houses of the RSFSR (“World Literature”, “Academy”, GIHL) in comparison with the publishing program of translated literature of the State Publishing House of Ukraine (DVU). The lecture also involved the problem of management around translation; revision, proofreading, editing and reviewing; the problem of collaborative translation: a tandem of translators: one who knows better the source language and one who knows better the target language; the cooperation between translator and author, etc (Idem).

**2.3 The syllabus on the special methodology of translation, *Metodyka perekladu*, developed by Zerov** Discovered by Lada Kolomiyets recently, the syllabus on the special methodology of translation, *Metodyka perekladu*, developed by Zerov for the same-year students of that Department (date of signing: September 9, 1932), takes 50 academic hours and consists of two sections and seven topics altogether (See Kolomiyets, 2020; Kolomiyets, 2021a). In his explanatory note, Zerov underlines that this course on translation methodology is a direct continuation of the course on translation methodology elaborated by Kalynovych: “In fundamental agreement with the course on translation methodology already taken by students, the first section, “General Methods of Translation,” is designed to familiarize the proletarian translator, editor and reviewer with all the technical problems of their professional work, namely, the problems of rendering vocabulary, morphological and syntactic structures, phonetic qualities, and certain functions of the text to be translated” (Kolomiyets, 2021a: 13): SECTION I. General Methods of Translation. Topic 1. Main Features of Typology of Translation. Topic 2. Translation of Prose Non-Fiction Text. Topic 3. Translation of Prose Fiction Text. Topic 4. Translation of Verse.

The second section is smaller, showing the main stages in the development of translated literature in Ukraine: SECTION II. The History of Ukrainian Translation. Topic 5. Translation in Ukraine during Feudal Formation. Topic 6. Translation during Industrial Capitalism and Imperialism. Topic 7. Translation during the Dictatorship of the Proletariat (Kolomiyets, 2021a: 13).

The course is based on the lecture method. In order to activate the student, the teacher a) recommends that students take notes on lectures, especially in those sections that are not provided with textbooks: b) introduces two conferences: one at the end of the first section of the program, the other at the end of the entire course, and c) offers two topics for students to develop independently outside the classroom (corresponding to the two sections of the course, so that so that the reports on these topics could be heard during the course).

The syllabus begins by addressing problems that were causing heated discussions in the late 1920s, namely: the question of the possibility or impossibility of adequate translation, of the importance of accuracy and the balance between accuracy and inaccuracy in different types of texts (in prose nonfiction, prose fiction, and verse translation), and whether a translation should be an analogy of the original (“nativeness”-oriented) or its stylization (“foreignness”-oriented translation). Zerov categorizes translations based on

the originality of the source text and the approach to linguistic foreignness into six types: 1) translations that are “close” to foreign colouring; 2) “analogous” translations; 3) “compromise” translations; 4) “free” translations; 5) “stylization” translations; and 6) “montage” translations.

The second topic deals with the translation of prose non-fiction text (8 hours). Under this heading, the lecturer provides definitions of fiction and non-fiction prose, points out the ideological and practical significance as the basis of the specificity of non-fiction prose, characterizes prose language and its genre differences, classifies non-fiction prose, distinguishing the genres of scientific, administrative, business language and its clichés, covers journalism and criticism as the borderline area of non-fiction and fiction prose, and points out the variety of tasks of the translator depending upon the genre. Then Zerov proposes to discuss the ways of rendering single words in a prose nonfiction text by: 1) descriptive substitution, 2) transcription of the borrowed word, transcription variants, 3) calque, 4) coining of a new term in the target language. At the same time due attention is to be paid to morphology and syntax in a prose non-fiction translation, its intonation features and logical accents, as well as orthographic norms of transcription of terms and names. Cacophonous coincidences, their nature, and reasons for avoiding them as well as the intonational division of the phrase are also to be analysed.

In discussing topic 3 on translating prose fiction (8 hours), the lecturer focuses on the transfer of the lexical and semantic features of the original; on the word in its aesthetic function and on synonyms, their colouring, and their role in the text (variation, explication, gradation); on homonyms and their role in the verbal fabric of a work of fiction; on “wordplay” and various ways of its rendering; on social dialect and the difficulties and common means of its transfer; on phonetically distorted words; and on the rendering of linguistic and pathological phenomena in translation. Among other issues of fiction translation, it was planned to discuss tropes, their various groups, the means of translating them (exact reproduction and smoothing) as well as lexical selections, the so-called “high” and “low” styles, and the means of reproducing them in the target language.

**2.4 Recommended literature for the early theoretical translation courses** At the same time, both Kalynovych and Zerov compiled lists of recommended literature for their translation courses. Both programs contained “Theory and practice of translation” by Oleksander Finkel (Finkel,

1929) published in Ukrainian and “The art of translation” by Chukovskii and Fedorov (Chukovskii & Fedorov, 1930). Finkel’s work, published in Kharkiv in 1929, was seen as the most comprehensive edition of the time; along with Zerov’s and Kalynovych’s notes it became the main reference for both programs.

These initial steps by Ukrainian researchers towards the construction and development of the new discipline are clearly demonstrative of the collective response to the academic initiatives. Problems raised in some of these publications, such as Finkel’s book, have remained topical research issues until now, almost a century after the book was first published. The elaborate programs by Kalynovych and Zerov, as well as the publications that followed in the step of the academic programs in Kyiv/Kharkiv in the beginning of the 1930s, indicate the potential capability of the Ukrainian researchers to build an independent discipline of Translation Studies several decades before its official recognition.

### **3. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH**

The syllabus analyses give us an insight into Soviet translation policy of the early 1930s. The role of translation in Soviet society was gradually undergoing official revisions; translation was now and then ascribed new functions in the Soviet nation-building and language policy. In the beginning of the 1930s, translation came to be looked upon as an instrument for the consolidation of the Soviet Union republics around Russia. This shift brought about a decline in interest in translations from western European languages.

The academic programs in Kyiv were not destined to enjoy a long life. Departments in the university were soon closed under official regulations, as the institution was turned into purely pedagogical establishments of higher education. In 1933 –1934, Ukraine witnessed a media campaign against “nationalistic sabotage” in translation; many translators were incriminated, accused of having a nationalistic bent and supporting counterrevolutionary activity aimed at separating the Ukrainian language from Russian (Kalnychenko & Kalnychenko 2020). The Ukrainian Institute of Linguistic Education executives were accused of basing the entire educational process in the institution on harmful principles, and of having a dangerous “focus on Western culture,” which worked towards “separating Ukraine from the system of the Union of Socialist Soviet Republics” (Misechko, 2013: 34). In 1934, the Ukrainian Institute of Linguistic Education was relocated



- Finkel, O. (1929). *Teoria i praktika perekladu* [The theory and practice of translation]. Kharkiv: DVU (in Ukrainian).
- Gambier, Y. (2018). Institutionalization of translation studies. In L. D'hulst, Y. Gambier (Eds.). *A History of Modern Translation Knowledge: Sources, concepts, effects* (pp. 179–194). Amsterdam and Philadelphia, John Benjamins.
- Hordynsky, S. (1993). Neoclassicists. *Internet Encyclopedia of Ukraine*. Retrieved from <http://www.encyclopediaofukraine.com/display.asp?linkpath=pages%5CN%5CE%5CNeoclassicists.htm>
- Kalnychenko, O. (2011). A Sketch of Ukrainian Translation Thought History of the 1920s. In A. Chalvin, A. Lange and D. Monticelli (Eds.). *Between Cultures and Texts: Itineraries in Translation History* (p. 255–267). Frankfurt am Main: Peter Lang, 2011.
- Kalnychenko, O. & Kalnychenko, N. (2020). Campaigning against the "Nationalistic Wrecking" in Translation in Ukraine in the Mid-1930s. In L. Harmon & D. Osuchowska (Eds.). *Translation and Power* (pp. 53–60). Berlin: Peter Lang.
- Kalnychenko, O. & Kamovnikova, N. (2020). Navchannia perekladu: instytutski prohramy z perekladoznavstva pochatku 1930–ykh rokiv [Teaching translation: Academic courses in 'Translation theory and practice' of the early 1930s]. *Visnyk natsionalnoho universytetu imeni V.N. Karazina. Serii Inozemna filolohiia. Metodyka vykladannia inozemnykh mov*, 91, 147–155.
- Kelly, D. (2005). *A Handbook for Translator Trainers: A Guide to Reflective Practice*. Manchester: St. Jerome.
- Kochur H.P. (2008). Mykola Zerov i yoho poezii [Mykola Zerov and his poetry]. In H. Kochur (Ed.). *Literatura ta pereklad* [Literature and Translation] (pp. 341–352). Vol. 1. Kyiv: Smoloskyp (in Ukrunian).
- Kolomyiets L.V. (2013). *Ukrainskyi khudozhnii pereklad ta perekladachi 1920-30-kh rokiv* [Ukrainian literary translation and translators of the 1920s-1930s]. Kyiv: Vydavnycho-polihrafichnyi tsentr "Kyivskyi universytet" (in Ukrainian).
- Kolomyiets, L. (2020). A Psycholinguistic Analysis of the First Ukrainian Syllabi on General and Special Methodology of Translation by Mykhailo Kalynovych and Mykola Zerov. *East European Journal of Psycholinguistics*, 7(2). 135-154. <https://doi.org/10.29038/eejpl.2020.7.2.kol>
- Kolomyiets, L. (2021a). Mykola Zerov's unpublished manuscripts from Hryhoriy Kochur's archives. *Visnyk of Taras Shevchenko National University of Kyiv*, 1(53), 5-15 (in Ukrainian).
- Kolomyiets, L.(2021b). Mykola Zerov's innovation in planning the translation repertory and developing a lecture course on translation methods (Afterword by the editor-compiler to the publication of archival materials of M. K. Zerov "A List of works of foreign literature that should be translated in the first place" and "Course syllabus 'Methods of translation'"). *Visnyk of Taras Shevchenko National University of Kyiv*, 1(53), 15-23 (in Ukrainian).

- Kolomiyyets, L. (2023). Between censorship and nation building: the first Ukrainian lecture courses on translation studies from a historical perspective. In M. Djovčoš, I. Hostová, M. Kusá, E. Perez (Eds). *Translation Studies in Ukraine as an Integral Part of the European Context* (pp. 63-89). Bratislava: VEDA.
- Materialy pro robotu Ukrains'kogo instytutu lingvistychnoi osvity, 22 lystopada 1930 r. – 11 lystopada 1932 r. [Materials on the Work of the Ukrainian University of the Linguistic Education, the 22 of November 1930 – the 11 of November 1932]. *TSDAVOV Ukrainy*, f.166, op. 9, spr. 1767, 198 p. (in Ukrainian)
- Misechko, O.Ye. (2013). Z istorii UI – pershoho spetsializovanoho navchalnogo zakladu profesiinoyi inshomovnoyi osvity v Ukrayini [From the History of the UILE – the First Specialized Educational Institution of the Professional Education in the Field of Foreign Languages in Ukraine]. *Visnik Zytomyrs'kohoo derzavnoho universitetu*, 67, 30-35 (in Ukrainian)
- Protokoly zasidan' Pidhotovchoi komisii RNK URSR, kolehii NKVI, NKPratsi URSR ta materialy do nykh, 10 travnia – 12 veresnia 1930 r. [The Reports of Proceedings of the Preparatory Commission RNK URSR, NKVO Board, Labour NK and Materials to them, the 10<sup>th</sup> of May – the 12<sup>th</sup> of September 1930]. *TSDAVOV Ukrainy*, f. 1, op. 6, spr. 41, 139 p. (in Ukrainian).
- Shmiher, T. (2009). Istoriya ukraiinskoho perekladoznavstva XX storichchia [A History of Ukrainian Translation Studies in the 20th century]. Kyiv: Smoloskyp (in Ukrainian).
- Strikha, M. (2006). Ukrains'kyi khudozhnii pereklad: Mizh literaturoiu i natsiietvorenniam [Ukrainian Literary Translation: between Literature and Nation-building]. Kyiv: Fakt – Nash chas.
- Zerov, M. (1924). *Nove Ukrayinske pysmenstvo* [New Ukrainian Writings], Vol. 1. Kyiv: Slovo (in Ukrainian).
- Zerov M. (1928). U spravi virshovanoho perekladu [On the matter of verse translation]. *Zhyttia y revoliutsiia* [Life and Revolution], 9, 133–146 (in Ukrainian).

## CHAPTER 2

# THE METHODOLOGY OF TRANSLATOR AND INTERPRETER TRAINING IN UKRAINE: HISTORY AND THE STATE OF THE ART

Leonid Chernovaty

### **Abstract**

The chapter summarises the primary evolutionary phases of the approach to translator and interpreter instruction and education in Ukraine. The present study analyses the prerequisites for its emergence, the characteristics of its initial stages, the factors that influenced it in the Soviet period, as well as the complications in its progress in the early years of Ukraine's independence. The author proffers his pedagogical model, along with the tenets that underpin the creation of teaching materials. In consideration of the findings of the analysis, the author arrives at the conclusion that the translator and interpreting training methodology in Ukraine is undergoing dynamic development and offers a highly auspicious outlook for the years to come.

**Keywords.** history, translator and interpreter training methodology, translator and interpreter training model, teaching materials, Ukraine.

This chapter gives a short summary of how training for translators and interpreters has developed in Ukraine. We would limit the discussion to specialised translation and interpreting. The focus here is on the methodology as a science, rather than on the training of translators and interpreters, which has a much longer history. Research shows that the first attempts to create training programmes for translators in Ukraine took place in the 1930s (see the previous chapter). However, it was not until the early 1960s that full-fledged translation and interpreter training programmes were established. This development coincided with the opening of translation departments at two universities: Taras Shevchenko National University in Kyiv (1962) and V.N. Karazin National University in Kharkiv (1966).

In those centres, as well as in the country as a whole, there was virtually no experience of this kind of training. Literary translation was a thing, of course, but these translators didn't undergo any special training; they just appeared as a result of natural selection. The responsibility for determining the content and methods of training therefore fell to the teachers, who had some

experience in translating fiction or technical literature. The pedagogical system itself was principally predicated on the medieval master-disciple paradigm, wherein the master (teacher) was the unchallenged authority and the disciple (student) sought to glean at least a modicum of the immense wisdom possessed by the master. The quality of teaching provided by different instructors was inconsistent, meaning that the effectiveness of the translator's professional development was largely influenced by the student's extra-curricular activities.

At the moment, this system had been working quite well. The opening of new translator training schools was prohibited for ideological reasons, which resulted in relatively small student numbers at the two centres. The students' motivation was remarkably elevated, as they had a tangible opportunity to secure a relatively well-remunerated position abroad, which was an exceptional prospect during the Soviet era. On the whole, there were sufficient qualified teachers with translation experience, and the standards for the quality of translation (not including its literary variation) were not usually too rigorous. The practice of interpreting was problematic due to the controlled contacts with foreigners, but demand for that type of mediation was rather limited.

However, a significant shift occurred in the late 1980s, when the ban on translator training outside Kyiv and Kharkiv was lifted. By the mid-1990s, translator training programmes had been introduced at numerous universities. This happened at the same time as Ukraine gained independence. It also coincided with the need to switch to Ukrainian as the language of instruction. This resulted in a crisis in teaching materials. Overcoming this challenge proved to be difficult, as the new centres lacked experience in both training and materials preparation, while the old centres did not receive adequate financial support. The sad truth was that much experience in materials preparation was not possessed by them either, as textbooks used to be obtained from Moscow. Materials were compiled by some teachers for their own classes, but typically, they were never published and were lost as soon as teaching of the specific discipline was stopped by their author.

A further issue was the change in priorities when it came to the training of translators and interpreters. During the Soviet era, the primary domains in which translators were trained were the social and political sphere, with a significant emphasis on communist ideology, and the military sphere. Upon completion of their studies, the majority of translation department students were obliged to serve as military translators for a minimum of two years. Debates pertaining to the challenges encountered in literary translation were equally prevalent, whilst specialised translation was predominantly confined

to a single scientific or technological domain, arbitrarily selected by the instructor and contingent on the instructor's predilections or the prevailing teaching resources.

In the late 20th century, there was an increasing demand for specialised translation, which made up over 90% of the market. This was in spite of the rising number of literary translations. Specifically, at the beginning of the 21st century, as compared with the late 1970s, there was an increase of more than a thousandfold in the amount within the European Union. Furthermore, the growing demand for adapted software products and texts has led to an expansion of cross-lingual mediation, incorporating localization into translation processes (Mishchenko 2012).

The change in priorities led to changes in how people viewed the content of professional translator training. Theoretical journals commenced the publication of treatises elucidating the particulars of specialised translation and its pedagogy in the domains of medicine (Wakabayashi 1996) and law (Harvey 2002). By the close of the second millennium, there was a genuine enthusiasm for the utilisation of bilingual corpora in translation instruction (Bowker 1998; Malmkjaer 1998; Zanettin 1998; Maniez 2001). Consequently, by the dawn of the 21st century, endeavours had been made to explore the intricacies of specialised translation. However, these attempts remained sporadic and were precipitated by fortuitous circumstances (such as the emergence of the aforementioned bilingual terminological corpora), eluding the conventional teaching methodologies or theoretical frameworks employed in such instruction.

A series of interrelated tasks had to be completed to solve those problems

1) Developing a model of translator/interpreter training in Ukrainian universities. This task involved several objectives. These were: making the list of the necessary knowledge and skills. This means identifying the composition of the translator's/interpreter's professional competence. Another objective was to outline the aims, principles, methods and content of teaching. The third objective was to develop the system of assessing the translator/interpreter competence components.

2) Delineating the domains and, correspondingly, the subject knowledge and terminology prerequisite for efficacious translation within them.

3) Coming up with the ideas for the system of exercises and tasks to be applied when creating teaching materials for each kind of translation

and interpreting, as well as for the sets of exercises and tasks within each subject cycle.

4) Establishing the framework for evaluating and interpreting translation in the current, mid-term and final assessments.

5) Using the model that has been talked about by doing some testing on it and creating teaching materials for translator/interpreter training.

The successful completion of these tasks demanded teachers who were both motivated and had sufficient experience in teaching specialised translation and interpreting. Moreover, a specific professional training and experience in the development of teaching models, systems of exercises and tasks, textbooks and other teaching materials, planning and conducting experimental teaching, processing its results and formulating conclusions was also necessary. In this regard, certain issues were observed. The Kyiv centre, in conjunction with another significant translation stronghold, namely Ivan Franko National University in Lviv, has historically concentrated on literary translation. Furthermore, the institutionalised training of translators in Lviv commenced only in 1996, which is to say 30 to 34 years after the equivalent training had begun in Kharkiv and Kyiv, respectively. Consequently, it required a certain amount of time to amass the necessary experience in Lviv.

Consequently, the situation at that time was such that the specialists that met the said requirements happened to be available at the English Translation Department (the current name – Mykola Lukash Translation Studies Department) of the V.N.Karazin National University in Kharkiv. It was primarily due to their endeavours that the resolution of the aforementioned tasks was accomplished, at least, within the initial 10-15 years, prior to the subsequent influx of translator training specialists (see further). The findings of their endeavours are hereby presented.

*Translator/Interpreter Training Model.* To establish the theoretical foundation, the overall idea of the subsequent studies was outlined in a number of publications in the early 2000s (Chernovaty and Hanicheva 2002; Chernovaty 2003; Chernovaty 2004). The development of the Translator/Interpreter Training Model based on several approaches was the culmination of the subsequent research by the teachers and post-graduate students of the department, as well as the international practice (EN 15038 2006; EMT 2009; ISO 17100 2015) and the experience accumulated in the preparation and experimental testing of teaching materials.

The competence approach is principally based on the PACTE translation competence model (PACTE 2000), though it does possess certain distinctions. With regard to the general translation competence, this model incorporates the bilingual, extralinguistic, translation, personal and strategic components. The technology skills model made at the department (Chernovaty and Olkhovska 2022) explains the elements of that particular module. Training aims to systematically, focally and integrally develop the aforementioned sub-competences.

The comprehensive approach is all about developing translation skills in two forms – oral (sight, consecutive, simultaneous) and written (equivalent and heterovalent). These skills are developed at the same time as specific-domain approaches are being put into place. These approaches are modular and complementary.

In line with the share of specialised domains in the entire volume of global translation and the world's tendencies in translator/interpreter training, the specific-domain approach favours specialised translation/interpreting as opposed to the translation of fiction. The relevance of a specific domain for translator training depends on how likely it is to feature in the future work of graduates, while the order in which they are studied depends on their conceptual complexity – simpler domains are covered first, followed by more complicated ones. The choice of domains is guided by a variety of principles.

According to the pragmatic value principle, the preference is given to the domains that provide for a greater amount of subject knowledge and terminology, which the students are more likely to come across in their future work.

The modular approach provides for the division of the entire training course into one-credit (30-hour) modules, each of them being related to a specific domain (society, politics, science, technology, economics, law etc.).

The modules can be flexibly combined (the combinatory approach) in case of need, in order to meet the changing requirements of the translation/interpreting market, with some of them being removed and others substituted with related modules from new domains.

The systemic approach applies to devising the sets of exercises within a specific module on the basis of the general translation/interpreting exercise system principles designed at the Translation Studies Department (Chernovaty and Kovalchuk 2019).

The mutually complementary approach means that, at undergraduate level, both interpreting (mostly in the classroom) and translation (mostly through independent work) skills are developed within each module. These skills complement each other, contributing to the development of professional translator/interpreter competence.

The cycle approach involves organising exercises and tasks into cycles. These cycles relate to one text on a specific topic or subtopic. The text sets out a number of exercises and tasks that the students must complete in preparation for the development of automated subskills and complex skills. The correlation of these exercises and tasks depends on the position of the particular cycle within the thematic module. This is in line with the characteristics of the system of exercises and tasks developed at the department.

The framework for evaluating students' translation and interpreting work, which was created as part of the translator training model, employs a distinct approach to assessing different types of translation and interpreting tasks, considering the unique features of each one (Chernovaty 2013).

Many Ukrainian translator/interpreter-training centres use the model being discussed here, making natural adaptations depending on local specifics and their own interpretation. As the overall educational system develops, so does this model, and it does not significantly depend on its authors.

In 2003, the Dictum Factum project was launched by the translation departments of Kharkiv and Kyiv. The project aimed to develop, test and publish teaching materials within the framework of the aforementioned model. To involve teachers from other universities in research and teaching activities, the Ukrainian Translator Trainers Union (UTTU) was founded in 2013 and a new UTTU series project was started. Both projects are provided with technical support by Nova Knyha Publishers.

The first textbook in the Dictum Factum series was dedicated to the field of law. In addition to the significance of the domain in itself, the series co-editor, Viacheslav Karaban, had just completed two substantial Ukrainian-English and English-Ukrainian law dictionaries (comprising over 70,000 terms each) which were published in 2003 and 2004 by Nova Knyha, respectively, and was thus prepared to undertake the editing of legal texts. Besides, the Ohio Bar Association gave permission to use their popular brochure, *The Law and You*, as the source for the textbook texts selection. The brochure, which was put together by professional lawyers but aimed

at the general public, was a perfect fit for the translator training textbook because the students (and their teachers) weren't specialised in law either.

The transformation of the texts into a textbook necessitated the establishment of a system of exercises and tasks, the fundamental principles of which were established by the Kharkiv department. The book (Chernovaty and Karaban and Ivanko 2004) was initially published in 2004. It turned out to be in demand and its four editions have been used for training lawyers, translators and interpreters in many universities ever since. Other textbooks for training translators and interpreters in the domain of law include those devoted to human rights (Chernovaty et al. 2006) and EU law (Chernovaty et al. 2021).

In the economics and socio-political domain, the following two textbooks were also published as a result of international cooperation. The US Embassy in Kyiv gave the go-ahead for their information materials to be used as the source of texts for the textbooks in the economics domain (Chernovaty et al. 2005) and the US state government sphere (Chernovaty et al. 2006).

The instruction of consecutive interpreting demands the employment of an interpreter's shorthand. The appropriate concept had been worked out in Kharkiv to provide for the students' command of it, and it was implemented in the textbook by Olexandr Rebrii (Rebrii 2006), who is the current head of the department. Subsequent to its inception in 2006, the publication has undergone numerous iterations, with its utilisation becoming pervasive across numerous academic institutions. The concept of the textbook has also been implemented in the domain of international organisations by Olexandr Rebrii, and his textbook *The European Union and other international political, economic, financial and military organisations* (Rebrii 2009) has been republished several times.

Training students for whom English is a second foreign language can present certain challenges. The reason for this is the limited number of terms they have for describing politics. In order to resolve the issue, the notion of the preparatory stage was proposed in Kharkiv, and it was incorporated into the designated textbook for the aforementioned students (Chernovaty and Kotliarov 2005).

*Science and technology.* The inaugural textbook for the instruction of translation in this field was published in 2004 by Viacheslav Karaban (Karaban 2004), followed by the subsequent volumes prepared in Kharkiv:

*translation in the domain of technology (electric and electronic equipment, metal production and processing)* (Chernovaty and Karaban and Omelianchuk 2006), and *translation of patents* (in cooperation with Kharkiv Polytechnics) (Chernovaty and Tsariova 2011).

In the UTTU Series, they were followed by another textbook on psychology (Chernovaty, Karaban & Khomulenko, 2012), technology (energy, natural resources and transport; Chernovaty et al., 2017a), natural sciences (algebra, geometry, physics and chemistry; Chernovaty et al., 2017b), and two textbooks on medicine (Chernovaty et al., 2019a; Chernovaty et al., 2019b).

Thus, fewer than 20 years have passed since the publication of the first of 28 textbooks for teaching specialised translation in the Dictum Factum and UTTU series. However, the range of titles is not limited to these publications. The series also has collections of stories about the history of Ukrainian translation. These include books about the famous translators from Kharkiv and experts in translation studies, such as Oleksandr Finkel (Chernovaty and Karaban and Kalnychenko 2007), Mykola Lukash (Chernovaty and Karaban and Cherniakov 2009), Volodymyr Derzhavin (Kalnychenko 2015) and Vasyl Mysyk (Hrytsiv 2017). There are also volumes on the history of Ukrainian translation in the 1920s and 1930s (Kalnychenko and Poliakova, 2011), the translation of works by foreign translation studies authors — for example, Benjamin’s five-volume ‘Handbook of Translation Studies’, which is currently in progress (Kalnychenko and Chernovaty, 2020–2022) — and materials for teaching English to translation students. However, a discussion of these publications is beyond the scope of this review.

In generalising a brief history of specialised translation teaching in Ukraine, a few milestones in its development can be identified:

2002: the first article outlined the tasks to be accomplished to develop the basis of methodology of teaching specialised translation (Chernovaty and Hanicheva 2002).

2003: the establishment of the Dictum Factum series and release of the first textbooks.

2007: the first PhD dissertation on the methodology of teaching specialised translation was completed at the Mykola Lukash Translation Studies department (Hanicheva 2007, supervised by Leonid Chernovaty).

2013: release of the first textbook on translator and interpreter training and teaching methodology (Chernovaty, 2013), which laid the groundwork for subsequent studies in this field (with more than 300 citations on Google Scholar).

2013: the establishment of the Ukrainian *Translator Training Union (UTTU)* and the *UTTU Series*.

2016-2018: A significant growth in the research base in Ukraine, with the completion of multiple postdoctoral (DrSc) dissertations at various universities.

- Olexandra Popova (Ilia Mechnikov National University, Odesa): ‚The model of professional translator training from Chinese‘ (Popova, 2016);

- Natalia Zinukova (Alfred Nobel University, Dnipro): ‚The methodology of interpreter training in the field of foreign economics at graduate level‘ (Zinukova, 2017);

- Iryna Simkova (Kyiv Polytechnic University): ‚The methodology of interpreter training in the field of technology at undergraduate level‘ (Simkova, 2018).

Kateryna Skyba (Khmelnyskyi National University): ‚Modernisation of professional translator and interpreter training‘ (2017);

Eugeny Dolynskyi (Khmelnyskyi National University): ‚Translator and interpreter training within the informational and educational university space‘ (2018);

Alla Olkhovska (V.N. Karazin National University in Kharkiv – Translator and Interpreter Training by Means of Information and Communication Technologies (Olkhovska, 2018).

This significant improvement in the quality of research is a clear sign of the ongoing progress in the development of the intercultural mediator training methodology in Ukraine.

The methodology of translator and interpreter training is often considered to be either Applied Translation Studies or part of the methodology of teaching foreign languages. But there are key differences between these subjects. While Translation Studies research focuses on specific types of bilingual communication, the methodology of translator and interpreter training focuses on developing the ability to facilitate these types of communication.

The objects and subjects of the methodology of teaching foreign languages and the methodology of translator and interpreter training coincide in that they both focus on teaching and the method of teaching respectively. However, they differ in the type of activity they teach. While teaching foreign languages involves developing the ability to conduct monolingual communication, translator and interpreter training aims to develop the ability to facilitate bilingual (and intercultural) communication. This fundamental distinction gives rise to specific features that lead to significant differences in the processes of monolingual communication and translation.

It is important to acknowledge that the methodology of translator and interpreter training, as a science, is not included in Translation Studies, despite common belief. This is similar to how the methodology of teaching foreign languages is not a part of linguistics, or the methodology of teaching physics is not a part of physics. The way foreign languages were taught was first worked on by linguists (and sometimes psychologists) who kept trying to build on various models, like linguistic (traditional grammar, structural linguistics, etc.) or psychological (conscious learning, subconscious acquisition, etc.). But it was only when a large group of researchers who only or mainly studied the problems of teaching and did not depend on changing fashions in linguistics or psychology had emerged that progress was made.

A similar evolution is evident in the Ukrainian methodology of translator and interpreter training, which appears to be undergoing a transition towards its establishment as an independent scientific discipline. It is encouraging to note that, in consideration of its positive dynamics and the promising development prospects, both in theoretical terms and in practical applications, there appears to be a favourable outlook.

The preparation of this chapter was funded by the EU Next Generation EU through the Recovery and Resilience Plan for Slovakia under project No. 09I03-03-V01-00148.

## References

- Bowker, L. (1998). Using Specialized Monolingual Native-Language Corpora as a Translation Resource: A Pilot Study. *Meta*, 43(4), 631–651.
- Chernovaty, L., Olkhovska, A. (2022). Future interpreter's componential technological competence model. *Information Technologies and Learning Tools*, 87(1), 320–335.

- Chernovaty, L., Kotliarov, D. (2005). *Politychnyi pereklad: pershi kroky* [Translation and interpreting of the English-language discourse related to politics. First steps], textbook for university students. Kharkiv: V.N. Karazin Kharkiv National University.
- Chernovaty, L., Kovalchuk, N. (2019). Teaching non-fiction translation: the system of exercises and tasks. *Advanced Education*, 12, 5–11.
- Chernovaty, L., Tsarova, S. (2011). *Pereklad tekstiv anhlomovnykh zasobiv zakhystu intelektualnoi vlasnosti: patenty, znaky dlia tovariv ta posluh* [Translation of the English-language instruments of intellectual property protection: patents, trademarks and service marks], textbook for university students. Vinnytsia: Nova Knyha.
- Chernovaty, L., Hanicheva, T. (2002). Shliakhy optymizatsii pidhotovky perekladachiv v Ukraini [Ways to improve translator/interpreter training in Ukraine]. *Filolohichni studii*, 2, 198–204.
- Chernovaty, L., Rebrii, O., Kalnychenko, O., Kamynin, I., Kovalenko, L., Kovalchuk, N. (2019a). *Pereklad anhlomovnykh tekstiv u sferi nadannia medychnoi dopomohy* [Translation and interpreting of the English-language discourse related to medicine], textbook for university students. Part 1. Vinnytsia: Nova Knyha.
- Chernovaty, L., Rebrii, O., Voronina, K., Kovalchuk, N., Kotliarov, D., Lukianova, T. (2019b). *Pereklad anhlomovnykh tekstiv u sferi nadannia medychnoi dopomohy* [Translation and interpreting of the English-language discourse related to medicine], textbook for university students. Part 2. Vinnytsia: Nova Knyha.
- Chernovaty, L., Rebrii, O., Kalnychenko, O., Kamynin, I., Voronina, K. (2017a). *Pereklad anhlomovnykh naukovo-tekhnychnykh tekstiv: enerhiia, pryrodni resursy, transport* [Translation and interpreting of the English-language discourse related to science and technology: energy, natural resources, transport], textbook for university students. Vinnytsia: Nova Knyha.
- Chernovaty, L., Rebrii, O., Kalnychenko, O., Lukianova, T. (2017b). *Pereklad anhlomovnykh tekstiv u haluzi pryrodnychkykh nauk: alhebra, heometriia, fizyka, khimiia* [Translation and interpreting of the English-language discourse related to natural sciences: Algebra, Geometry, Physics, Chemistry], textbook for university students. Vinnytsia: Nova Knyha.
- Chernovaty, L., Komarova, T., Zinukova, N., Lypko, I. (2021). *Pereklad anhlomovnoho dyskursu v haluzi prava Yevropeiskoho Soiuzu* [Translation and interpreting of the English-language European Law discourse], textbook for university students. Vinnytsia: Nova Knyha.
- Chernovaty, L., Karaban, V., Cherniakov, B., eds. (2009). *Mykola Lukash: Motsart ukrainskoho perekladu* [Mykola Lukash – Mozart of Ukrainian Translation]. Vinnytsia: Nova Knyha.
- Chernovaty, L., Karaban, V., Kalnychenko, O., eds. (2007). *Oleksandr Finkel – zabutyi teoretyk ukrainskoho perekladoznavstva* [Oleksandr Finkel – a forgotten theoretician of Ukrainian Translation Studies]. Vinnytsia: Nova Knyha.

- Chernovaty, L., Karaban, V., Omelianchuk, O. (2006). *Pereklad anhlomovnoi tekhnichnoi literatury. Elektrychne ta elektronne pobutove ustatkuvannia. Ofisne ustatkuvannia. Komunikatsiine ustatkuvannia Vyrobnyststvo ta obrobka metalu* [Translation and interpreting of the English-language discourse related to technology. Electric and electronic consumer equipment. Office and communication equipment. Metal production and processing], textbook for university students. Vinnytsia: Nova Knyha.
- Chernovaty, L., Karaban, V., Khomulenko, T. (2012). *Pereklad anhlomovnoi psykholohichnoi literatury* [Translation and interpreting of the English-language discourse related to psychology], textbook for university students. Vinnytsia: Nova Knyha.
- Chernovaty, L., Karaban, V., Penkova, I., Yaroshchuk I. (2005). *Pereklad anhlomovnoi ekonomichnoi literatury. Ekonomika USA* [Translation and interpreting of the English-language discourse related to the US economy], textbook for university students. Vinnytsia: Nova Knyha.
- Chernovaty, L., Karaban, V., Rebrii, O., Lypko, I., Yaroshchuk, I. (2006). *Systema derzhavnoho upravlinnia USA* [Translation and interpreting of the English-language discourse related to the US government], textbook for university students. Vinnytsia: Nova Knyha.
- Chernovaty, L., Karaban, V., Hanicheva, T., Lypko, I. (2006). *Mizhnarodni konventsii u haluzi prav liudyny* [Translation and interpreting of the English-language discourse related to international covenants on human rights], textbook for university students. Vinnytsia: Nova Knyha.
- Chernovaty, L., Karaban, V., Ivanko, Yu. (2004). *Pereklad anhlomovnoi yurydychnoi literatury* [Translation and interpreting of the US legal discourse], textbook for university students. Vinnytsia: Nova Knyha.
- Chernovaty, L. (2013). *Metodyka vykladannia perekladu yak spetsialnosti* [Methodology of translator and interpreter training and teaching], textbook for university students. Vinnytsia: Nova Knyha.
- Chernovaty, L. (2004). Problematyka doslidzhen u haluzi metodyky navchannia perekladu yak spetsialnosti [Problems awaiting research in methodology of teaching translation as a major]. *Visnyk Kharkivskoho natsionalnoho universytetu imeni V.N. Karazina* [Bulletin of V.N. Karazin Kharkiv National University], 635, 192–197.
- Chernovaty, L. (2003). Pryntsypy pobudovy navchalno-metodychnykh materialiv dlia pidhotovky perekladachiv [Principles of structuring teaching materials for translator/interpreter training]. *Visnyk SumDU. Serii: Filolohichni nauky* [Bulletin of Sumy State University. Philological sciences], 4(50), 230–234.
- Dolynskyi, Ye. (2018). *Profesiina pidhotovka maibutnikh perekladachiv v umovakh informatsiino-osvitnoho seredovyshcha universytetu* [Professional training of future translators under the condition of university information and education environment]. Khmelnyskyi: FOP Melnyk A.A.
- EMT conception of translation competence (2006). <https://www.researchgate.net> EN 15038.

- European Standard EN 15038. Translation services – Service requirements. <http://qualitystandard.bs.en-15038.com>
- Hanicheva, T. (2007). *Metodyka navchannia maibutnikh filolohiv usnoho anhlomovnoho dvostoronnoho perekladu u haluzi prav liudyny* [Methodology of teaching two-way interpreting in the the profession of human rights] [Unpublished PhD. Dissertation], Kyiv National Linguistic University.
- Harvey, Malcolm. 2002. "What's so special about legal translation?" *Meta* 47, 2: 177–185.
- Hrytsiv, N. (2017). *Vasyl Mysyk: Riznohrannyi diament ukrainskoho khudozhnoho perekladu* [Vasyl Mysyk: A multifaceted diamond of Ukrainian literary translation]. Vinnytsia: Nova Knyha.
- ISO 17100. (2015). International Standard ISO 17100 Translation services. Requirements for translation services. <https://www.austrian-standards> .
- Kalnychenko, O., Kalnychenko, N. (2021). Teaching Translation: First University Courses in Translation Theory of the Early 1930s. In *Translation, Interpreting and Culture 2: Rehumanising Translation and Interpreting Studies*. Banská Bystrica, Slovakia, 22–24 September 2021. Book of Abstracts, 9.
- Kalnychenko, O., Chernovaty, L. (Eds.). (2020–2022). *Entsyklopediia perekladoznavstva* [Encyclopedia of Translation Studies]. Translated from English. Vol. 1–3. Vinnytsia: Nova Knyha.
- Kalnychenko, O., Poliakova, Y. (Eds.). (2011). *Ukrainska perekladoznavcha dumka 1920–kh – pochatku 1930–kh rokiv* [Trends in Ukrainian Translation Studies in 1920s – early 1930s]. Vinnytsia: Nova Knyha.
- Kalnychenko, O. (Ed). (2015). *Volodymyr Derzhavyn* [Volodymyr Derzhavyn]. Vinnytsia: Nova Knyha.
- Karaban, V. (2004). *Pereklad anhlomovnoi naukovo-tekhnichnoi literatury* [Translation of English literature in science and technology], textbook for university students]. Vinnytsia: Nova Knyha.
- Malmkjaer, K. (1998). Love thy Neighbour: Will Parallel Corpora Endear Linguists to Translators? *Meta*, 43(4), 534–541. <https://doi.org/10.7202/003545ar>
- Maniez, F. (2001). Extraction d'une phraséologie bilingue en langue de spécialité: corpus parallèles et corpus comparables. *Meta*, 46(3), 552–563. <https://doi.org/10.7202/003549ar>
- Mishchenko, A. (2012). Hlobalizatsiia ekonomiky ta svitovyi standart [Globalization of economy and the world standard]. *Naukovi zapysky. Seriiia "Filolohichni nauky"* [Scholarly Notes. Series: Philology], 105(4), 373–378.
- Olkhovska, A. (2018). *Rozvytok fakhovoi kompetentnosti mahistriv-perekladachiv zasobamy informatsiino-komunikatsiinykh tekhnolohii: teoriia i praktyka* [Development of MA (majoring in Translation) students' professional competence by means of IT technologies: Theory and practice]. Kharkiv: Planeta-Print.

- PACTE. (2000). Acquiring Translation Competence: Hypotheses and Methodological Problems in a Research Project. In Beeby, A., Ensinger, D., and Presas, M. (Eds.). *Investigating Translation*. Amsterdam: John Benjamins. 99–106.
- Popova, O. (2016). *Profesiino-movlennieva pidhotovka maibutnikh perekladachiv kytaiskoi moy v umovakh universytetskoj pedahohichnoi osvity: teoretychnyi aspekt* [*Linguistic and professional training of future translators from Chinese: theoretical aspect*]. Odesa: Atlant.
- Rebrii, O. (2009). *Yevropeiskyi Soiuz ta inshi mizhnarodni politychni, ekonomichni, finansovi ta viiskovi orhanizatsii* [*European Union and other international political, economic, financial and military organizations*], textbook for university students. Vinnytsia: Nova Knyha.
- Rebrii, O. (2006). *Osnovy perekladatskoho skoropysu* [*Basics of interpreter's shorthand: textbook for university students*]. Vinnytsia: Nova Knyha.
- Simkova, I. (2018). *Formuvannia v maibutnikh perekladachiv profesiinoy kompetentnosti v usnomu dvostoronnomu naukovu-tekhnichnomu perekladi* [*Development of the future translators' professional competence in the two-way interpretation in the the profession of science and technology*]. Kyiv: KPI imeni Ihoria Sikorskoho.
- Skyba, K. (2017). *Modernizatsiia profesiinoy pidhotovky perekladachiv: stratehichni oriientyry* [*Modernization of translators' professional training: strategic guidelines*]. Khmelnytskyi: Terminova polihrafiia.
- Wakabayashi, J. (1996). Teaching medical translation. *Meta*, 41(3), 356–365.
- Zanettin, F. (1998). Bilingual Comparable Corpora and the Training of Translators. *Meta* 43(4), 616–630.
- Zinukova, N. (2017). *Usnyi perekladu zovnishnoekonomichnii sferi: teoriia i metodyka navchannia mahistriv-filolohiv* [*Interpreting in the foreign economics sphere: Theory and practice of teaching MA philologists*]. Dnipro: Alfred Nobel University.

## SECTION 2 SYSTEMIC RESEARCH

### CHAPTER 3 THE SYSTEM OF THE UNIVERSITY TRAINING OF TRANSLATORS AND INTERPRETERS FROM/TO CHINESE

Oleksandra Popova

#### **Abstract**

This chapter reviews the origins of the profession-oriented training of future translator-sinologists in Ukraine, as well as the related dynamic evolution of Ukrainian-Chinese diplomatic relations since 1992. The author finds a strong link between the historical stages (cultural revolution, mutual benefit, diplomatic boom) of diplomatic relations between Ukraine and China, on the one hand, and the specifics of the profession-oriented training of said translators, on the other. Based on her analysis, the author proposes three principles for the profession-oriented training of future translator-sinologists – *the principle of cognitively automated mastery of linguistic and communicative skills; the principle of integrative acquisition of different types of foreign language activities and different types of translating and interpreting; and the principle of profession-oriented activities*. The author argues for a context-based approach to the profession-oriented training of future translators because it allows its holistic implementation with the parallel acquisition of conceptual and professional knowledge and skills within the two working languages and promotes the students' rapid entry into their profession. Using the competence-based approach as a methodological basis, the paper suggests the structure of the future translator-sinologists' translation competence comprising key supra-professional, general and specific profession-related competencies. According to the author, the pedagogical conditions for the training include the students' motivation, the interaction of all the disciplines of the curriculum, profession-oriented methods of teaching and learning, active independent profession-related activities, interactive forms of learning, and awareness of the importance of translation. Considering the above, the paper suggests a model for the profession-oriented university training of future translator-sinologists.

**Key words:** competence-based approach, context-based approach, model of training, pedagogical conditions of training, principles of training, translator-sinologists training, Ukrainian university.

I. Origins of the profession-oriented training of future translator-sinologists

The problem of the profession-oriented training of future translator-sinologists is especially relevant now, since Ukraine's international relations with China have been developing dynamically, which requires the training of qualified specialists in oriental studies to create and maintain favourable relations between the two countries. The study of Chinese causes many difficulties, taking into consideration the linguistic differences of the two languages, hieroglyphic spelling, the special tone of Chinese words (and syllables), word formation, the cultural and philosophical interpretation of hieroglyphs, the etymology of Chinese keys, etc.

An understanding of the role, the content of the translators' professional "operation", their personal characteristics, and requirements for the quality of the translator's work started emerging in the era of ancient civilizations, when translation was the leading type of speech activity – mainly related to the interpretation of Scripture. Interpreting gradually entered the professional arena due to the establishment of trade and political relations between various regions. The consecutive type of interpretation presupposed the correct communicative behaviour of the interpreters and their speech skills in specific situations. The interpreters gained their experience by communicating with native speakers.

The development of translation-interpreting services from/to Chinese in Ukraine is closely related to the dynamic evolution of Ukrainian-Chinese diplomatic relations after the signing of the Joint Communiqué by the government representatives of the two countries on January 4, 1992. The whole period of cooperation between the two countries and, accordingly, the development of the "translator-sinologist" profession, can be formally divided into 3 stages: 1) 1992 – 2002; 2) 2003 – 2009; 3) 2010 – till present.

*The first stage* can be called a "cultural revolution". The acquaintance of the Ukrainians with Chinese culture, on the one hand; and the introduction of the Chinese to Ukrainian culture, on the other, started with sporadic exchanges of creative teams between sister cities and the organisation of art exhibitions. This pattern lasted for about eight years. By the year 2000, the number of reciprocal visits by senior officials of the two countries had increased, requiring the involvement of more Ukrainian translators from/to Chinese in international cultural and artistic activities. The need for translators was especially urgent when the peoples of both countries were involved in a dialogue. It was decided to organise the Days of Ukrainian Culture in China. Translators had to be experts in both Ukrainian and Chinese

culture, and they had to study popular dance art (classical ballet, folk dance, modern dance), musical art (instrumental design of Ukrainian and Chinese musical works, current musical genres, works of famous musicians), fine arts (the origins of Ukrainian folk decorative art, photographs, traditional oil painting, Chinese graphics and calligraphy), etc.

The specialisations “translator-sinologist” and “philologist-sinologist” at that time lacked clear awareness of the content of teaching. In 2001, the Common European Framework of Reference for Languages (Byram and Fleming, 1998) became a new benchmark in learning and teaching foreign languages, as well as in assessing the students’ speech skills. Ukraine’s leading universities started adapting their curricula accordingly. The translator training involved the following activities: 1) written translation based upon the scheme “**Writer** (Lx) → **text** (in Lx) → **TRANSLATOR** → **text** (in Ly) → **Reader** (Ly)”, where **Lx** is the source language, and **Ly** is the target language; 2) interpreting with the involvement of the mediator in the dialogue between two speakers based on the scheme “**Interlocutor** (Lx) → **discourse** (in Lx) → **INTERPRETER** → **discourse** (in Ly) → **Interlocutor** (Ly)”.

The range of professional situations (in the relevant syllabi) covered the following headings: Personal identification (establishing contacts / relationships); General working environment and daily work (interview in the framework of employment, daily administrative activities); Relations with colleagues and clients (meetings, business lunches, communication via the Internet, discussions in the workplace, negotiations, social events); Business travel (travel agency, airport, train station, on board an aircraft, ship, train, hotel, restaurant, bank, post office); International conferences, meetings, discussions; Health and personal safety (doctor, pharmacy, emergency care, workplace, travel); Contracts and agreements (employment, insurance, services, partnership / cooperation); Company (structure, results, products, services, staff, policy, advertising); Issues of professional and academic nature (lectures, seminars, workshops, consultations, library, laboratory, resource centre, classes in the classrooms).

In view of the above, the content of curricula began changing, primarily in academic topics, and the most significant goal was to acquaint future translators of Chinese with modern trends in Chinese culture (compared to that of Ukraine). Thus, the domestic system of training specialists-sinologists in the period from 1992 to 2002 combined modern European and modern Chinese trends (Dementieva 2005).

The first scientific and practical conference at the Embassy of Ukraine in China “High Technology Development Zones: Concept, Practice and Prospects”, which covered issues of cooperation between the two countries in science and technology, launched *the second stage* of the Ukrainian-Chinese cooperation. The relations between Ukraine and China in the fields of mechanical engineering, space exploration, biotechnology, computer science, and the development of new industries became mutually beneficial. China became Ukraine’s third largest trading partner. According to many international economists, Ukraine and China managed to complement each other.

The establishment of a network of international education and culture centres – The *Confucius Institute* – by Hanban (the State Chancellery for The Chinese Language and Culture around the world, China) gave Ukrainians the opportunity to learn more about Chinese culture, philosophy and literature. The tasks of the centre were as follows: organisation of Chinese language and culture courses; holding scientific conferences dedicated to China; promoting the language and culture of China through various competitions and events; conducting the Chinese Proficiency Test (HSK – Hanyu Shuiping Kaoshi); preparation and publication of educational literature on the Chinese language; internships for students and teachers in China, consultations on studying in China.

By 2009, three such centres had been launched in Ukraine – in Kyiv, Luhansk and Kharkiv. This meant new and favourable prospects for teaching Chinese to Ukrainian students, including the future translators from/to Chinese. That is why, at the beginning of 2010, the scientific and methodological base for teaching translators and interpreters from/to Chinese had all the prerequisites for successful implementation of the educational professional programs within the specialism “Translation (Chinese)”.

*The third stage* of diplomatic relations between China and Ukraine can be described as a “diplomatic boom”. In 2011 an Agreement on Cooperation was signed between the Ministries of Justice of Ukraine and China, which provided for the exchange of experience in legal issues, namely in the field of justice, criminal justice, work organisation of lawyers and notaries, and the creation of new methods and software in the field of forensic examination. Both countries had a common problem: the need to improve the system of administration and governance, the fight against corruption in their own structures, and the reduction of the state regulatory function and the influence of bureaucracy on decision-making. After this, both countries started

working on intensifying cooperation in the military field, which required the availability of translators and interpreters in this the profession as well, bringing it into the translator training curricula.

Within the framework of the program of humanitarian cooperation between China and Ukraine, an Agreement on the Exchange of Television Products was signed, according to which the countries planned to implement a number of joint projects in the fields of television and radio broadcasting. In 2011 the Central Television of China and the National Television of Ukraine signed a Memorandum on Cooperation in the field of television and the exchange of television products with the largest cable television operator in Ukraine – the *Volia* group.

It resulted in a growth in popularity of interpreting. Qualified interpreters were invited to participate in this field, and they quickly adapted to the interpreting process. There arose the need to take into account this thematic novelty in the curricula. The “spontaneity” of interpreting within the designated sphere was highly appreciated, which, of course, required quality training. In 2011 the State Committee for Television and Radio-Broadcasting of Ukraine and the State Administration of Radio, Film and Television of the P.R.C. signed an Agreement on Cooperation. The parties undertook to promote the creation of conditions for wide and free dissemination of information for the further deepening of knowledge about the life of Ukrainians and the Chinese, establishing and developing equal and mutually beneficial cooperation in the sphere of television and radio. It provided for the exchange of specialists in the field of television and radio broadcasting and their participation in scientific and practical seminars and conferences; assistance in the exchange of journalists and film crews, TV and radio organisations; and assistance in the exchange and broadcasting of TV and radio programs which could allow Ukrainians to get acquainted with China’s politics, economy, society, culture and sports life, as well as the Chinese – with the history, culture and economy of Ukraine. The exchange of audiovisual products began, and joint production of TV and radio programs was planned. This meant an increase in the number of Chinese translators / interpreters involved in the above-mentioned field on the part of Ukraine and Ukrainian translators / interpreters on the Chinese side.

In 2011, Ukrainian-Chinese cooperation in the field of education gained a new impetus. A year earlier, China had set up a special commission on education cooperation. Ukraine supported the initiative. The Chinese

commission was headed by the First Deputy Minister of Education, Science and Technology of the People's Republic of China. At the first meeting of the commission in Beijing, a number of measures were developed, and the number of Chinese students and graduate students who would like to study on a contract basis in Ukraine was agreed upon. In turn, Chinese partners invited Ukrainian students (bachelors, masters and postgraduates) to study in China on a budget basis (free of charge). The Confucius Institutes, as separate education and culture structures, provided Chinese language students with the opportunity to take HSK exams, which are recognised worldwide.

In 2012, further steps followed. Cooperation of leading Chinese and Ukrainian universities on conducting joint research and possible further implementation of the latest developments, and training of highly qualified personnel started: the implementation of graduate dissertations under the double guidance of professors from Chinese and Ukrainian universities, cultural cooperation, the study of local lore; the opening of a Chinese school in Kyiv; the creation of new Ukrainian Language Centres in China and Confucius Institutes in Ukraine; the functioning of the Ukrainian-Chinese subcommittee on a permanent basis, etc. The parties agreed on further educational and scientific cooperation in engineering, the natural sciences, medicine, humanitarian and public spheres.

These events marked the revision of the training content aimed at translators/interpreters of Chinese. Chinese culture, philosophy and art were gaining more and more attention. The newest scientific, technical, economic and cultural fields "needed" the involvement of highly qualified translators/interpreters. The boundaries of "special" competence were expanding, i.e., translators from/to Chinese had to acquire subject knowledge concerning the leading branches of science and technology. Interpreting was gaining popularity. Consecutive interpreting became one of the most popular modes of mediation, even more popular than simultaneous interpreting (by ear, by sight interpreting, or by reading a pre-translated text). The tasks of training translators / interpreters within that period were as follows: the development of the perceptual, mnemonic and other abilities necessary for mastering the skills and abilities of consecutive and simultaneous interpreting; the restructuring of speech and interpretation skills and abilities; the formation of the ability to perform interpreting operations and actions at a high pace and in the specific combinations inherent in interpreting; the expansion and consolidation of general knowledge on a wide range of topics, taking into account areas of future

specialisation; the improvement of mastery in Chinese art; the enrichment of theoretical knowledge in the field of simultaneous and consecutive interpreting to provide more purposefulness and awareness of the educational process and improve professional knowledge in the course of further practical work; and the continuation of work on the formation of a comprehensive worldview and education of high moral qualities (Chriss, 2006; Robinson, 2007).

Due to the new tasks and socio-political requirements, the content of curricula and professional competences has been gradually transformed (Koval, 2013). The emphasis was on the “qualitative contingent” rather than the “quantitative” one, although the number of translators / interpreters from/to Chinese in demand has increased significantly. At that time, the next challenge was to develop the criteria for selecting future translator-sinologists, especially in the field of consecutive and simultaneous interpreting. Consequently, universities began selecting the future translators and interpreters from/to Chinese.

Thus, the profession-oriented training of future translator-sinologists requires two main components – communicative and linguistic (lexical, grammatical, semantic, phonological, spelling and orthoepic) training. Profession-oriented and communicative training, which are the most important constituents, cover different professions and deal with real academic and professional spheres and situations (Ball, 2000: 7-8). Particular attention is paid to *the socio-cultural training* of future translators-sinologists, who need to understand and decipher various aspects of Chinese culture and language behaviour within a professional environment, as well as to respond to them.

It should be noted that the philosophical views of Chinese scholars (Laozi, Xunzi, Han Fei Zi, Dong Zhongshu, Zhu Xi, Ye Shi, Wang Shouren, Wang Fuzhi and others) and the philosophy of Confucius were the theoretical basis for the profession-oriented training of future translators from/to Chinese during the described periods.

To sum up, the historiographical analysis of the training of future translator-sinologists in Ukrainian universities revealed a strong link between the historical stages of diplomatic relations between Ukraine and China and the specifics of the profession-oriented training of said translators. The evolution of the translator’s/interpreter’s profession (since 1992) led to the transformation of the goals and content of translator education, the strengthening of requirements for the components of sinologists’ professional competence, as well as the development of new criteria for selecting students.

## II. Principles of the profession-oriented training of future translator-sinologists

Among said principles, we suggest the following: (1) the principle of cognitively automated mastery of linguistic and communicative skills; (2) the principle of integrating the learning of different types of foreign language activities and different types of translating/interpreting; (3) the principle of profession-oriented activities.

The principle of cognitive-automated acquisition of linguistic and communicative skills is based on the doctrine of A.N. Leontiev “from the conscious to the unconscious (top to bottom)” (Leontiev, 2009) and involves the automation of skills that generate foreign language speech. This principle ensures simultaneous reliance on analogy, linguistic sense-intuition, subconscious memorisation and discursiveness. Vocabulary and grammar are taught in situationally related speech models, which form the basis for communicative exercises aimed at the development of linguistic (lexical, grammatical, semantic, phonological, spelling, orthoepic) and professionally related communicative competencies based on linguistic and communicative awareness, skills and abilities. Thus, learning a foreign language by future translators is accompanied by the acquisition of Chinese linguistic units and rules of their combination, the skills of using them, and the combinatorial ability to use knowledge and skills to express a new opinion in a novel situation (see also Korunets, 2003).

The specialisation of future translator-sinologists covers a range of profession-related activities and is based on motivated speech activity. The focus of the profession-oriented speech training of future translators from/to Chinese is to teach intercultural communication as a binary activity – communication and translation. Given the above, the special principles of training future professionals include the principle of integrative teaching of various types of speech (listening, speaking, reading, writing hieroglyphics, Pinyin, Latin and Cyrillic alphabets) and different types of mediation (translation, interpreting, sight translation).

The division of speech into oral and written types determines the compliance with the principle of teaching a specific speech variety in the context of teaching profession-oriented activities, which involves teaching interpreting (simultaneous, consecutive) through teaching oral speech (monological, dialogical, diamonological); and teaching translation through teaching written speech, i.e., mastering the phonetic-semantic, lexical-

semantic, grammatical and technical-motor specifics of hieroglyphics (Chinese characters). Listening and reading are the general aids to this learning; as a result, the relevant professional speech skills are developed.

The outlined principles, as components of the teaching/learning theory, are the initial priorities which formed the basis for the content of teaching; they laid the guidelines for the organisation and implementation of the Chinese and Ukrainian language learning process, specified the means of using regulatory requirements for language learning and provided for the methodological support of the training.

### **III. Contextual approach as a determinant of future translator-sinologists' professional and linguistic university training**

The context-based approach has attracted significant interest from both foreign and domestic theorists and practitioners for over half a century. In modern pedagogy, “context-based learning” (also known as sign- and context-based learning) is understood as a dynamic model that integrates subject-specific and social aspects of professional work (Vygotsky, 1986; Byram & Fleming, 1998; DeVries, 2000; Dori et al., 2018). This approach fosters the transformation of student learning activities into profession-oriented experiences.

Designed for higher education, context-based learning emphasizes profession-focused training through the systematic integration of real-world professional contexts. The educational process gradually incorporates profession-related elements, transitioning students from traditional academic activities (e.g., lectures) to quasi-professional experiences (e.g., role plays) and educational profession-centred tasks (e.g., research projects, workplace practice). Ultimately, this progression leads to actual professional engagement, where students dynamically model the subject-specific and social aspects of their future careers. In the case of translator and interpreter training, this method enables students to transition seamlessly from academic learning to professional practice (Robinson, 2007).

The context-based approach has attracted significant interest from both foreign and domestic theorists and practitioners for over half a century. In modern pedagogy, “context-based learning” (also known as sign- and context-based learning) is understood as a dynamic model that integrates subject-specific and social aspects of professional work (Vygotsky, 1986;

Byram & Fleming, 1998; DeVries, 2000; Dori et al., 2018). This approach fosters the transformation of student learning activities into profession-oriented experiences.

Designed for higher education, context-based learning emphasizes profession-focused training through the systematic integration of real-world professional contexts. The educational process gradually incorporates profession-related elements, transitioning students from traditional academic activities (e.g., lectures) to quasi-professional experiences (e.g., role plays) and educational profession-centred tasks (e.g., research projects, workplace practice). Ultimately, this progression leads to actual professional engagement, where students dynamically model the subject-specific and social aspects of their future careers. In the case of translator and interpreter training, this method enables students to transition seamlessly from academic learning to professional practice (Robinson, 2007).

Therefore, in order to achieve educational and profession-related goals in higher education, it is necessary to carry out the model of training that provides for the transformation of cognitive activity into the professional, with appropriate recoding of needs, incentives, motives, goals and objectives, teaching aids, subjects, objects and results. In profession-oriented activities, a specialist analyses a situation first, then sets tasks, solves them and proves the validity of the decision. Students perform these steps in a reverse order. It is possible to teach a student to think and act as a specialist in active learning of the context type.

Since the main task of the translator/interpreter is to transfer the content of the source text (ST), preserving its stylistic and expressive features, by means of another language, the translator faces two tasks: to understand the ST content and fully reproduce it in the target text (TT). In this regard, the future translator-sinologists have to meet a number of requirements: (1) to have a rich multidisciplinary lexicon (appropriate terminology within the scientific, technical, business-related and journalistic the professions); (2) to have a sufficient command of Chinese and the other language involved in translation/interpreting (in our case, Ukrainian); (3) to possess a translation technique with due regard to the meaning of the indexing components (radicals) of Chinese characters; (4) to effectively use vocabulary sources (printed, electronic) and automated translation programs; (5) to possess the subject knowledge required for translating/interpreting specialised texts; (6) to be aware of local lore and socio-cultural aspects of China and Ukraine;

(7) to be able to perform all types of translation/interpretation while taking into account the specifics of speech activities (listening, speaking, reading and writing); (8) to possess dynamic (motor) and auditory memory; (9) to be able to quickly establish the meanings of the new words and idiomatic expressions in the ST and find the equivalents to use them in the TT; (10) to be able to use different types of dictionaries and reference books in the translation process, as well as other media (radio, Internet news, newspapers, magazines, etc.); (11) to be able to compress the TTs for the relevant needs of their users; (12) to be aware of the principal features of all speech styles and the appropriate expressive means in the two languages; (13) to maintain “neutrality” concerning the source and the TT content; (14) to have good hearing, a sharp mind, and a strong, clear, and pleasant voice; (15) to be precise and quick in their translation; (16) to be honest and trustworthy, observing any existing codes of confidentiality (Chriss, 2006; Gile, 1995; Robinson, 2007).

Imitating role playing is considered to be a productive active method (Yardley-Matwiejczuk, 1997; Deterding and Zagal) and one of the leading features of the context-based approach to the profession-oriented speech training of future translator-sinologists, because profession-centred games (for example: “A translator/an interpreter and foreign delegation”, “A simultaneous interpreter and audience at the conference”, “A translator and a client”, “A guide-interpreter and tourists”, etc.) simulate real life professional situations and activity. This allows game participants to experiment, test different ways of profession-related behaviour and even make mistakes, correct them, analyse specific situations and find an ethically correct way out. Role-playing boosts the mental and cognitive activities of future translators/interpreters, and develops their creative professional abilities on the emotional basis of its participants. The game provides for an intensive exchange of ideas and information, for the refinement of knowledge, and the development of skills in both languages, as well as for profession-oriented training.

One of the active forms of contextual learning is a seminar-discussion organised as a process involving students’ active and equal communication. This activity provides for the students’ profession-oriented practical experience of active joint discussions and decision-making when dealing with theoretical issues of Translation Studies, as well as with practical issues.

Thus, the context-based approach to the profession-oriented training of future translators allows its holistic implementation with the parallel acquisition of conceptual and professional knowledge and skills within the two working languages – Chinese and Ukrainian – and promotes the students’ rapid entry into their profession.

#### IV. The competence-based approach as a methodological basis for the future translator-sinologists’ professional and linguistic university training

The choice of this approach is due to modern innovative processes that convert global experience into education. The guideline for the development of the educational space in Ukraine is the program range proposed by the UNO, which includes the Declaration of *the Millennium Development Goals* (Kramsh, 1993), as well as the implementation of *the Education Policy and Peer Education Project* aimed at modernising the content of education and developing key competences.

The introduction of the competence-based approach (Koval, 2013; Cydis, 2014) to the education system is conditioned by: (1) the globalization of the economy; it is aimed at shifting the emphasis from the adaptability-oriented principle to the competence-based principle; (2) the guidelines of the Council of Europe’s domestic education authorities, which recommend the implementation of competencies and a competence-based approach. In particular, the recommendations on educational policy in the “Reform Strategy for Education in Ukraine” state that “one of the ways to update the content of education and harmonise it with modern needs, to integrate into European and global educational spaces is to focus curricula on key competences and create effective mechanisms of their introduction” (Bilodid, 1970). Another important basis for the introduction of the competence-based approach into the higher education system is the appeal of scientists (Miller, 2012; Bihych et al. 2013; Waring, 2014) to establish competencies and competences as a leading criterion for the proficiency levels of modern graduates.

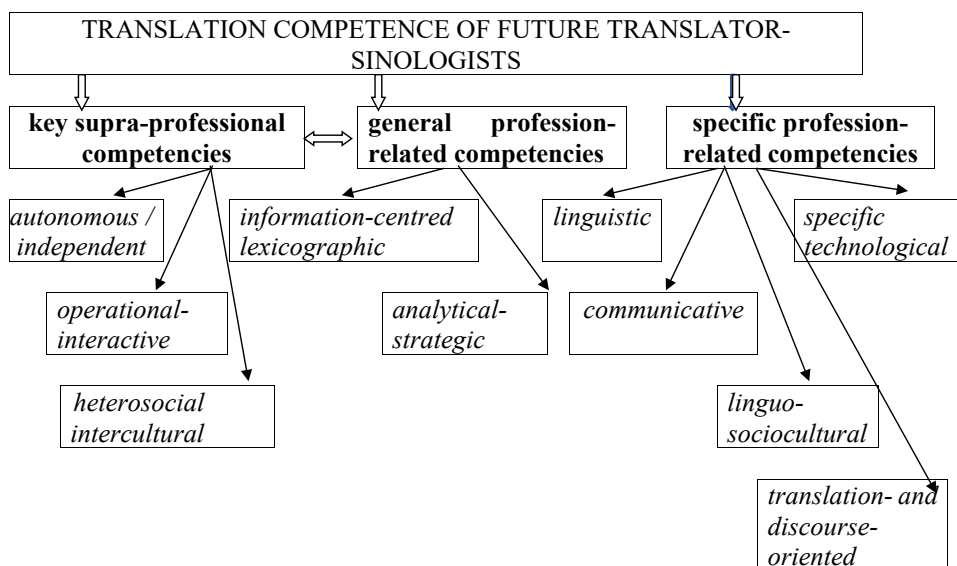
The notion of “*competence*” is associated with the concepts as follows: “personality”, “characteristics”, “quality”, “integrated result”, “ability”, “capability”, “awareness”, “authoritativeness”, “competencies”. Within this text, *competence* is understood as a qualitative and measuring characteristic of personality, an integrated result of successful transformation of acquired knowledge, skills and abilities into professional translation-related activities;

the formation of a person's ability to act successfully in practice, using acquired educational and life experience in professional translation-related or other activities in compliance with certain requirements and understanding responsibility for performed profession-related actions. *Competency* is interpreted as a given specific (professional) regulatory framework, involving requirements for educational and profession-oriented training of future translator-sinologists, which is mandatory for qualitative productive and effective professional activity as a socially defined and fixed result (Rychen & Tiana 2004; APA Dictionary, 2007).

Taking into account the available research (PACTE, 2005) on the importance, structure and functionality of competency and competence, we can suggest the following structure of the future translator-sinologists' translation competence: key supra-professional (autonomous/independent, operational-interactive, heterosocial intercultural), general profession-related (information-centred lexicographic, analytical-strategic) and specific profession-related (linguistic, communicative, linguo-sociocultural, translation- and discourse-oriented, specific technological) competencies (see Fig. 3.1).

Figure 3.1

***Profession-oriented speech competence of future translator-sinologists***



The framework of the study allows us to interpret the key competencies as a set of fundamental, interdisciplinary knowledge, skills and abilities; ethical and moral values and attitudes towards the subjects and objects of intercultural communication; and personal abilities to function in the field of translation and to find personal fulfilment in the profession.

The components of the key (supra-professional) competencies are as follows: autonomous/independent, operational-interactive, heterosocial intercultural.

*Autonomous/independent competency* encompasses two ideas: (1) the development of the future translator's personality and autonomy in choosing and acting in a professional context; (2) the translator's self-development and self-education. This competency is implemented by a set of knowledge, skills and abilities that allow the specialist to function reliably and productively in the profession.

*Operational-interactive competency* involves the conscious use of a number of tools that allow a translator-sinologist to interact with subjects and objects of the professional environment.

*Heterosocial intercultural competency* involves the ability to co-operate in socially heterogeneous groups and the ability to coexist and interact with representatives of other cultures in a multicultural professional environment; the ability to exist beyond the cultures, and to be aware of one's own place in the society of these countries in terms of performing professional duties.

The set of general profession-related competencies is represented by the information-centred lexicographic and analytical-strategic competencies; they serve as an intermediate link between the key supra-professional competencies and specific profession-related competencies and provide a holistic implementation of the general model of the profession-oriented speech training aimed at future translator-sinologists.

By *general profession-related competencies* we mean those that are common to a range of professions related to translating/interpreting (foreign/native language teacher, diplomat, secretary, magazine editor, crewing company inspector, etc.); they involve certain knowledge, skills and the ability to use theoretical foundations in professional activity in the field of translation.

*Information-centred lexicographic competency* requires the skills and abilities to use lexicographic sources in order to obtain the necessary information for profession-related activities.

The essence of *the analytical-strategic competency* is correlated with a set of integrated procedural knowledge, and the skills and abilities to coordinate all components of the specific profession-related competency.

*Specific profession-related competencies* are associated with an integrative set of special knowledge, skills and abilities in the field of translation, which allow a specialist to constructively carry out the communicative process in foreign (Chinese and English) and state (Ukrainian) languages with representatives of other countries within professional activities in the modes: Chinese ↔ Ukrainian, Chinese ↔ English.

The *Linguistic* knowledge, skills and abilities of future translator-sinologists constitute their *linguistic competency*.

*Communicative* knowledge, skills and abilities relate to the implementation of intercultural communication with the involvement of all types of speech activities – listening, speaking, reading and writing (Korunets, 2003).

Reading and writing are considered together, because in the initiated classification the written form of rendering information from one language into another (translation) provides a preliminary visual acquaintance (reading) with the source text. It should be noted that the practical transformation of linguistic knowledge, skills and abilities in profession-oriented educational activities demonstrates the depth (aspect-detailed) of student's professional level.

*Communicative knowledge, speaking skills and abilities* manifest themselves both through an integrative set of criteria indicators and the specific knowledge, skills and abilities of dialogue and monologue interaction.

The communicative knowledge, skills and abilities of *reading and writing* are manifested through an integrative set of criteria and the specific knowledge, skills and abilities of reading and writing which cover the technical side of writing texts and adherence to functional-stylistic determinants.

Specific knowledge, skills and abilities depend on the type of translation. Double-sided *visual translation* involves consistent speech activity – reading and writing through intermediate activities in the form of translation, so the specifics of the knowledge, skills and abilities of this type of

translation correlates with the knowledge, skills and abilities within the communicative group of “reading and writing”. These types of translation also have a combined nature: *sight translation* (silent reading of the source text and oral reproduction of its content in another language), *consecutive translation* (listening to a fragment of the source text with subsequent oral reproduction of its content in another language), *simultaneous translation* (listening to a fragment of the source text with approximately simultaneous oral reproduction of its content in another language (interpreting begins 2-3 seconds after the source text starts)), *annotated and summarised translating/interpreting* (visual or auditory acquaintance with the source text and written or oral reproduction of its content in another language), and *full written translation* (visual acquaintance with the source text and written reproduction of its content in another language).

*Linguo-sociocultural knowledge, skills and abilities* cover the field of local lore, the specifics of the relevant verbal and nonverbal communicative behaviour of the translator in a given situation, and the adequate translation tools and techniques for reproducing the original oral or written communication in another language.

The knowledge, skills and abilities of using modern information technologies in the process of professional translation are defined as *specific-technological*. Under *modern information technology* we understand a set of tools, methods and techniques for collecting, storing, processing, presenting and transmitting messages, which expands people’s knowledge and develops their ability to manage technical and social processes (Odacioglu and Kokturk, 2015; Kaba and Gjinali, 2023).

*Specific technological* awareness is useful in the implementation of all types of educational activities, as it accelerates the achievement of the desired result and saves time spent on mastering professional speaking skills and abilities.

In view of the above, *the competence-based approach* is correlated with the focus of the profession-oriented speech training of future translator-sinologists on the development of the *key* (fundamental, interdisciplinary), *general profession-related* (acquisition of knowledge, skills and abilities in the study of Humanities, socio-economic disciplines and Natural Sciences) and *specific profession-related* (based on the profession-oriented disciplines) competencies of future translator-sinologists.

Thus, the result of this training is expected to be the development of students' general competence, which includes integrated conceptual and profession-related knowledge, skills, translating/interpreting experience and behavioural models of the translator.

#### V. Pedagogical conditions for the profession-oriented training of future translator-sinologists

The theoretical and practical search for an effective means of training future translator-sinologists in the pedagogical university explains the urgency in the identification of the pedagogical conditions that best contribute to the efficiency of the educational process. Generalizing the available research, we can state the following conditions: the qualitative characteristics of the main processes and phenomena of educational environment, the tendency to activity organisation, and the improvement in the interaction of subjects and objects of the educational process in the specific didactic tasks' solution.

The basic constituents of the notion of a "condition" in the pedagogical context are: (1) a set of circumstances and causes that influence the development, training and education; 2) the ability of pedagogical conditions to accelerate or slow down the educational process, or to influence its dynamics and results; 3) compliance with standard and regulatory requirements for training and educating.

Thus, *pedagogical conditions* are defined as a set of interdependent prerequisites that ensure the organisation, monitoring, regulation and interaction of subjects and objects of the pedagogical process within the realisation of a certain goal. By the pedagogical conditions of the profession-oriented speech training of future translator-sinologists, we understand the external circumstances of the effective implementation of pedagogical goals, specially created by the teacher for a positive impact on the educational process.

The pedagogical conditions for the training of future translator-sinologists are as follows: (1) the students' positive motivation in the translation of Chinese; (2) the interaction of all the disciplines within the Humanities and Linguistics cycles of the curriculum; (3) the application of profession-oriented methods in the development of translation competence; (4) the involvement of students in active independent profession-related activities with Chinese texts and speakers; (5) the interactive forms of organisation

of students' profession-oriented speech and translation/interpretation activities; (6) the future translator-sinologists' awareness of the importance of translation in Ukrainian-Chinese relations. It should be noted that the outlined pedagogical conditions are implemented comprehensively, but at each stage a certain pedagogical condition prevails in accordance with the simulated educational and experimental context.

As far as the first condition is concerned, students' motivation to learn a foreign language as a tool of cross-cultural communication can be stimulated through a number of incentives: (1) applied need of foreign language skills for successful functioning in the future profession; (2) the desire to position oneself as a competitive competent specialist in the international labour market; (3) interest in other countries of the world (their culture, traditions, values). Motivation begins to have an effect if it covers the students' interests, needs, goals, desires, etc., and if the motive and purpose are in the cause-and-effect relationship and interaction. Given this, a clear definition of purpose and motive is the main factor in motivation efficiency.

The school leavers' choice of the "translator-sinologist" profession is a clear indication of their positive motivation, i.e., the motive (why a Chinese translator?) and the goal (students' final desired result).

A positive *motive* in choosing the profession of a translator-sinologist are the anticipated positively-loaded events related to this profession: (1) business trips abroad; (2) acquaintance with Chinese realities and traditions (Chinese cuisine, customs, medicine, tai chi and wushu gymnastics, art), Chinese history, Chinese literary heritage, scientific and technological achievements, philosophical and pedagogical determinants (Confucianism, Taoism, etc.); (3) multi-vector improvement and advanced training in China; (4) exchange of experience with foreign colleagues.

The student associates the *goal* with successful employment and a corresponding salary, which comprises the following strategic areas: (1) free communication in Chinese within the framework of professional cross-cultural communication; (2) mastery in the descriptive, semantic, etymological and decoding aspects of Chinese hieroglyphics; (3) cultural awareness; (4) seamless implementation of all types of interpretation and translation, including the application of information and communication technologies (ICT).

The leading *methods and forms* that activate the motivation and interest of future translators/interpreters from/to Chinese to study Sinology and the basics of the “translator-sinologist” profession through positive emotions are as follows: (1) lectures, mini-lectures, practical and seminar classes of discussion-based and analytical nature, close to professional activities in their forms and content; (2) profession-motivated independent work, creative individual tasks, research activities (participation in scientific and practical conferences; preparation of essays, reports, abstracts; presentations of research material using ICT); (3) analytical professionally significant tasks (ST linguistic analysis, translation analysis of STs and TTs), preparation of annotated, abstracted and complete retelling and translation/interpretation of STs; (4) creative and productive quasi-professional tasks – role-playing games, debates, discussions, conflict resolution, translation/interpretation tasks, participation in education- and culture-related events; (5) autonomous and advanced profession-oriented types of educational and cognitive activities – language practice abroad, workplace practice, reporting conferences, translation/interpretation practice with native speakers, etc.

Students’ positive motivation to translate/interpret the Chinese language is boosted through the opportunity to communicate with native Chinese speakers (teachers and volunteers from China, who are involved in the international project that is the Confucius Institute); study and employment abroad, and access to adequate pedagogical tools (methods, forms, and means of realisation of the educational process), which activates motivation and the interest of future translator-sinologists. As a result, students are purposefully involved in translation/interpretation activities within various language pairs: “Chinese ↔ Ukrainian”, “English ↔ Ukrainian”, “Chinese ↔ English”. They use their potential in the translation/interpretation of discourse belonging to different functional styles, as translation/interpretation is a multi-vector activity and requires awareness in almost all spheres of life. Students’ willingness to communicate with the Chinese in a learning environment to meet certain needs stimulates them (the students) to use reference encyclopaedias, dictionaries, and linguistic sources; broadens their outlook and promotes the acquisition of new, extracurricular material.

The further pedagogical conditions of the profession-oriented speech training of future translator-sinologists involve the interaction of the disciplines within the Humanities and Linguistics cycles of the curriculum, and the application of profession-oriented methods in the development of

translation competence. Interdisciplinary links reflect a comprehensive approach to teaching and educating, which makes it possible to identify both the main elements of the content of education and the relationships between its subjects. The priority is given to the development of a new, integrative way of thinking, which is characteristic of modern human beings and involves the integration of knowledge from different disciplines to solve one complex problem. Interdisciplinary interaction in education is due to the current level of science development, which is characterised by the integration of social, economic, political and scientific knowledge. We state the constructive and productive nature of interdisciplinary interaction, which contributes to: (1) the intensification of educational and cognitive activities of future translators; (2) cognitive-gnostic orientation in educational material in connection with practice-based activities; (3) effective development of a holistic system of students' integrated knowledge, skills and abilities; (4) improvement of the educational process. In our opinion, Translation Studies and Language Didactics provide the basis for the implementation of multifaceted interaction. Interdisciplinary links provide for their systemic and creative application. They make it possible to increase the level of students' fundamental knowledge, its classification, universalisation and globalisation, and the development of logical and systematic thinking. It is achieved through complex mechanisms of synthesis and analysis of these disciplines' content, as well as the ability to combine their knowledge of the Ukrainian and Chinese languages, literature, music, philosophy, religions, fine and performing arts, etc.

Involvement of students into active independent profession-related activities with Chinese texts and speakers. We view independent (autonomous) work (from the student's standpoint) as a productive and analytical activity. It is the highest form of purposeful externally motivated reactive educational and cognitive activity, which is structured and adjusted by the subjects of the activity according to their individual characteristics. Independent work stimulates the activation of knowledge, skills and abilities acquired by the student in class and promotes the student's self-discipline, self-awareness and responsibility.

Among the main types of students' independent work, we distinguish the following: (1) listening to lectures and taking notes; (2) processing lecture material; (3) practical and laboratory work on the problems of theory and practice of translation/interpretation, participation in seminars; (4) work

with literature in printed and electronic formats (search and analytical work with card index systems, databases; bibliographic, lexicographic, reference, encyclopaedic, periodical sources, etc.); (5) mastering modern systems of automated/machine (Machine Translation, MT) and computerised (Computer Assisted Translation, CAT) translation: (6) individual work with electronic monolingual and multilingual dictionaries (Context 3.51, ABBYY Lingvo, etc.); (7) use of MT programs (PROMT, Pragma, Language Master, Trados, WordFast, Google Translate, etc.); (8) independent tasks using modern word processors (typing programs, word processing, text editing translations, programs for spelling and grammar checking, terminology management – FileMaker, LogiTerm, MultiTerm, Termex, TermStar, etc.); (9) electronic programs; (10) preparation of abstracts, oral reports and scientific articles, etc.

It should be noted that the basis for students' independent work is their perception and analysis of any text in Chinese, English and Ukrainian and the creation of a TT (full, annotated, abstracted), a processed text in a source (SL) or a target language – annotations, reports, abstracts, articles, reviews, etc.) based on the ST. Working with a text of a certain functional style and genre, students are involved in such types of speech activities as reading, writing or listening. Reading and listening enable the processing and decrypting of the ST. Creation (production-transformation) of the TT is realised through writing and speaking.

The most effective forms and means of teaching/learning are as follows: role-playing games, debates, discussions, conflict resolving, solving translation problems, participation in education- and culture-related activities; language practice abroad, work-placed practice, reporting conferences, communication and translation practice with native speakers, etc. The process of students' profession-oriented activity is accompanied by speech-related and non-speech-related circumstances and conditions in which they think and act in the context of their profession in accordance with the situation and their roles in it. It results in gaining practical skills, obtaining life experience, developing creative non-standard thinking and communication skills and abilities to carry out cross-cultural communication with Chinese speakers. The modelling of communicative situations by the teacher and their implementation by means of role-playing games allow future translators to understand the content and procedural aspects of the profession-oriented teaching/learning activities; to improve their skills and abilities to work with information-related, encyclopaedic and dictionary

sources; to develop self-administrative abilities; to get acquainted with the components of the professional profile of the translator-orientalist.

During the language internship (advanced training) in China, future translators are involved in continuous cross-cultural communication with native speakers for two weeks, one semester or one academic year, depending on the chosen program. Abroad, students spend more time working with vocabulary sources, as they are surrounded by a natural Chinese-speaking environment in all spheres of life (culture, traditions, philosophy, cuisine, life, study, etc.); they understand that it is impossible to stay in the country without knowing its language. In practice, students master their skills and abilities to use lexical units (word combinations, phraseological units), syntactic constructions; the phonological and tonal framework of utterances; visual perception and decoding of hieroglyphs; writing skills, visual and auditory skills; segmentation of utterances. They learn to identify both their groupmates' and their own mistakes, and to find ways of filling in learning gaps of the educational process participants, etc.

*Interactive forms of the organisation of students' profession-oriented speech and translation/interpretation activities* is the next pedagogical condition to be considered.

This phenomenon belongs to the field of teaching methods and technologies, which has been historically based on project methods, variable pairs and the team-laboratory method. The key element of interaction is a "dialogue", i.e., an interaction between the subject and the object of learning, or, in other words, dialogical learning (the learning process takes place under the constant, active interaction of all students; co-learning, mutual learning; collective and group learning in cooperation) (Brit et al., 2020).

Among the traditional interactive forms of the future translator-sinologists' training, we single out translation, interpretation and speech training (quick response, fast learning), round table discussions, translation rings (discussion and identification of effective approaches to solving translation problems), discussions and debates (they learn to argue logically; to speak succinctly, clearly, and precisely against a background of diverse views), workshops (they develop the practical skills and abilities of translating and interpreting), etc. New interactive forms are represented by profession-related role-playing games (bank of ideas – the abilities to get out of an unusual quasi-professional situation and to act impromptu are developed), exhibitions and fairs of translation ideas (demonstration of knowledge, skills and abilities in translation

studies), workshops, etc. The latest interactive forms are updated through a translation workshop/studio (a rational way to collectively solve translation problems through the presentation of students' ability to use translation tools and ICT), symposia of translator-sinologists, creative classes (group work on various aspects of translating/interpreting within the language pairs: "Chinese ↔ Ukrainian", "English ↔ Ukrainian", "English ↔ Chinese"), sessions of employers (interactive communication with potential employers, advertising of professional knowledge, skills, abilities, etc.), alumni meetings ("Confucius Institute Alumni Association" – fruitful exchanges of views and experiences in a comfortable psychological atmosphere), interpretation workshops (an active form of education that stimulates the creative research activities of future translator-sinologists and provides a new educational and interpretation-based product in the process of educational interaction of its participants).

The further pedagogical condition is *future translator-sinologists' awareness of the importance of translation in Ukrainian-Chinese relations.*

The key component of the term "multiculturalism" (or "cultural diversity") is culture, which means a set of notable features inherent in society or a social group – spiritual and material, intellectual and emotional. In addition to art and literature, it covers lifestyle, skills to live together, value systems, traditions and beliefs (Modood and Meer 2012; Ye and Buchtel, 2021; Johansson, 2022).

The "multiculturalism" phenomenon correlates with the global markers of democracy – pluralism, tolerance, respect for other cultures, mutual understanding, constructive dialogue, exchange of experiences, achievements and cooperation. Future translators' awareness of the role of their profession at the national and local levels particularly in fostering a humane approach to multiculturalism allows for the performance of fruitful translation/interpretation activities, including cross-cultural communication.

We associate *multicultural education* with the process of the purposeful socialisation of students within the system of national, state-specific (China, Great Britain/USA) and general cultural values; additionally, with the development of tolerance, and the proficient communicative and empathetic skills necessary for translating/interpreting interactions with representatives of different cultural heritages, while being conscious about the importance of understanding the ethnocultural differences of communicators, and demonstrating adequate professional behaviour while performing professional duties. The strategic goal of profession-oriented training in the aspect of multiculturalism is the development of students'

cognitive beliefs about the importance of translation/interpretation within a multicultural space. In this regard, we note that the identified strategy involves step-by-step planning of actions (including speech and etiquette) and resources and is implemented through appropriate tactics. To be more precise: the development of the idea of the diversity and multicultural nature of the modern world (including China, Great Britain, USA and Ukraine); stimulation of their beliefs in the value of cultural diversity compared with the Ukrainian cultural treasure on a parity basis; the priority of humanity, tolerance and the ability to provide for intercultural dialogue and cooperation within Ukraine and other countries; and the desire for peaceful resolution of conflicts (if they occur) within a multicultural environment.

Theoretical and practical constituents of the multicultural component comprising the professional profile of the future translator-sinologist are as follows: (1) acquisition of relevant cultural knowledge and its practical implementation in translation/interpretation; (2) mastering the ways and methods of cross-cultural interaction at the national and international levels; (3) development of a humane and tolerant attitude to the phenomenon of “multiculturalism” as a value basis for human interaction; (4) cognitive understanding of the importance of translation/interpretation in a multicultural space.

The initiation of the “multiculturalisation” process involves the following stages: (1) study of the ethnic composition of student academic groups; (2) identification of the level of students’ national and ethnic consciousness at the national, general and “specifically national” (China, Great Britain, USA) levels; (3) identification of the main ethnocultural markers specifying the representatives of nationalities that participate in intercultural communication directly and indirectly; (4) identification of the degree of mutual influence demonstrated by representatives of different ethnic groups within student groups; (5) the development of a system of conflict prevention on the basis of ethnocultural differences and correction of negative attitudes towards other nationalities and their cultural heritage through a number of collective and individual tasks (culture-oriented exercises during students’ speech practice abroad, reporting at conferences; (6) group trainings and individual classes with students on multiculturalism; (7) art therapy using multinational elements of different arts – music, art and graphics, sports and choreography, etc.).

The development of future translators’ awareness in the aspects of multiculturalism and their linguistic and socio-cultural competence as translators/interpreters is the result of the abovementioned educational

activities. Along with these competencies, future translator-sinologists develop personal and social qualities, skills and abilities (creativity, skills of productive intercultural communication, empathy for other cultures, the ability to adapt to foreign languages while performing professional duties, etc.).

In view of the foregoing, it can be concluded that the abovementioned pedagogical conditions may create favourable opportunities for the development of future translators' professional competence.

## VI. Model and experimental methods of the profession-oriented university training of future translator-sinologists

Considering the aspects presented in the previous sections, we have attempted to suggest a model of the profession-oriented university training of future translator-sinologists (see Fig. 3.2). This model provides for its stage-by-stage implementation for the purpose of the development of students' translation competence, with due regard to the specifics of their potential spheres of employment (translation agencies, crewing companies, travel agencies, cultural and educational institutions, etc.). The said stages (cognitive-enriching, operational-reproductive, creative-productive, evaluative-reflective) are intended for the full provision of the pedagogical conditions mentioned above

The purpose of the *cognitive-enriching stage* is to acquaint students with different levels of the Chinese and Ukrainian languages, the psycholinguistic aspects of the Chinese and Ukrainian languages' usage, the specifics of Chinese → Ukrainian and Ukrainian → Chinese translation/ interpretation, the application of ICT in translation, and the acquisition of background knowledge as a fundamental prerequisite for the efficient profession-oriented training of future translators. At this stage, the first two pedagogical conditions are realised. The means, forms and methods of realisation of the outlined purpose are as follows: lectures (lecture-plenary session “Components of translation competence of translator-sinologists”, lecture-dia-polylogue “Ethics and professional behaviour of a translator from/to Chinese”, lecture-press conference “Conditions of translation activity”, lecture-meeting “Educational and normative standards of philological education in Ukraine”, lecture-conference-workshop “Functional and stylistic orientation of the content of education”, lecture-symposium “Innovative information technologies in Translation Studies”); workshops (“My profession is a translator sinologist”, “Vocabulary is the semantic basis.

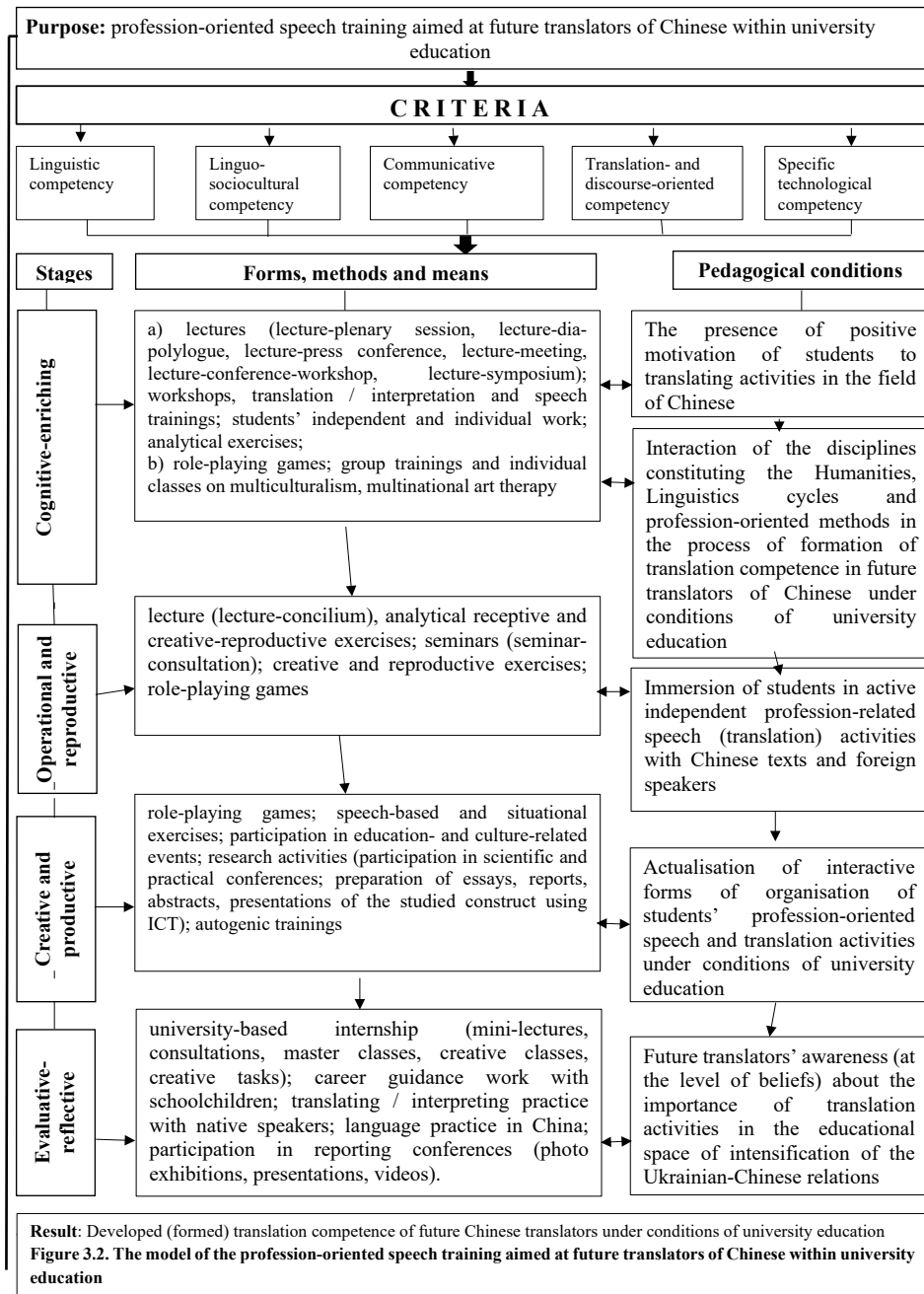


Fig. 3.2. The model of the profession-oriented university training of future translator-sinologists of translation”); translation/interpretation and speech training (“Functional and stylistic determinant in written translation”,

“Discursive determinant in interpreting”); students’ independent and individual work; analytical exercises (“The lexical level of actualisation of Ukrainian/Chinese scientific discourse”, “The grammatical level of actualisation of Ukrainian/Chinese scientific discourse”); role-playing games (“Stepping into the past”, “Modern social reality: the cross-cultural dimension”, “I know the world”); group trainings and individual classes with students on multiculturalism, multinational art therapy (“Music Therapy”, “Art and Graphic Therapy”, “Sports and Choreographic Therapy”, “National and Traditional Issues: Ukraine – China”).

The purpose of the operational-reproductive stage is the development of professional and applied skills in Chinese-Ukrainian and Ukrainian-Chinese translation/interpretation at the reproductive level. The third pedagogical condition is realised during the lectures within a special course, in particular within the unit “Independent work in profession-oriented university training of future translator-sinologists”. Among the leading tools, forms and methods at this stage are the following: lecture-discussion, analytical receptive and creative-reproductive exercises (“Politics”, “Decoder”, “Master of Conversion”, “Cultural Heritage of Ukraine/China”, “Guess the Cultural Phenomenon”); seminar-consultation “Do It Yourself”; creative and reproductive exercises (“Acting Art”, “Recognise the Politics”, “Professional Combinator”, “Young Technician”, “Stars of the Theatre Season”, “Translator-Scientist”, “How to Succeed in Business at the International Level”, “Experienced Translator/Interpreter”, “ICT Specialist”, “Translators in the field of Science and Technology”); role-playing games (“Stress point”, “Translation workshop”). The compilation of the Ukrainian-Chinese dictionary-glossary in each field (terms, phrases, phraseological units) is the core component of the content of students’ independent work. At this stage, students are invited to master the basics of the translation shorthand system.

The purpose of the creative-productive stage is to increase the independence and creativity in solving problem-oriented tasks in educational and profession-related interactions, as well as at scientific conferences.

The fifth pedagogical condition – interactive forms of students’ profession-oriented activities – is realised in speech-based and situational exercises. At this stage, within the disciplines “Current trends in modern Translation Studies” and “ICT in the educational process” these interactive forms dominate: role-playing games (“Round table”, “Translation / Interpretation ring”, “Exhibitions-fairs of translation / interpretation ideas”, “Translation /

Interpretation Workshop”, “Translation / Interpretation Studio”, “Employers’ Sessions”, “At Crewing Exams”, “At the Translation Agency”, “At the Travel Agency”); situational exercises (“Restless Foreigner”); autogenic training.

In order to develop their creative potential and cultural awareness, future Chinese translators are involved in organising and conducting education- and culture-related events such as the “International Day of Confucius Institutes”, “Chinese Bridge”, or “Chinese-Ukrainian Spring”.

Research activities involve students and teachers in scientific and practical conferences such as “Current Problems of Philology and Profession-oriented Training within a Multicultural Space”, the preparation of essays, reports, abstracts, ICT presentations, etc.

The evaluative-reflective stage is aimed at the consolidation of the future translators’ professional behaviour and the development of the ability to assess their own translation/interpreting products, as well as the output of their peers. This stage is represented by the following means, forms and methods: university-based internship (mini-lectures such as “The importance of work-placed practice and practical training of future translators/interpreters”); consultations (“The scope of a translator-sinologist’s work”, “Constructive skills of a translator/interpreter from/to Chinese”); master classes (“Translating educational documentation”, “Translating economic and legal documentation”, “Translating official academic correspondence”); creative classes and creative tasks related to speech therapy (“Magic fairy-tale world”, “Miracle of verses-tongue twisters”); schoolchild career guidance; translating/interpreting practice with native speakers at the local and national levels; taking HSK (Chinese Proficiency Test) and HSKK (Chinese Proficiency Spoken Test) exams; speech practice in China; participation in conferences; photo exhibitions (“Language Camp”, “The New Silk Road Initiative”, “Chinese Story – 2016”); presentations (“China through the eyes of the Ukrainians”, “Ukraine through the eyes of the Chinese”, “China’s cultural heritage”); and videos (“At the Chinese language classes”, “My trip to China”, “I am a creative person”).

The experimental testing of the model of translator-sinologist training described above, conducted at the K. D. Ushynskyy South-Ukrainian National Pedagogic University, proved its efficiency (see Popova, 2016). The statistical processing (using the  $\chi^2$  (chi-square) test of homogeneity) of the final test’s quantitative results showed the statistical significance of positive changes

in the experimental groups related to the systemic organization of training according to the model.

The problem of the profession-oriented training of future translator-sinologists is not limited to the results of this study, as the Chinese-Ukrainian format of relations requires regular review and adaptation of the learning content, as well as the search for new approaches to this training. The next research target may be related to the development of effective tools for diagnosing the quality of translator/interpreter education.

## References

- APA Dictionary of Psychology* (2007). Washington, DC: APA.
- Ball, H. O., Ziazun I. A. (Eds.). (2000). *Humanizatsiia zahalnoi ta profesiinoi osvity: suspilna aktualnist i psykhologo-pedahohichni oriientyry. Neperervna profesiina osvita: problemy, poshuky, perspektyvy* [*Humanisation of school and professional education: social actuality and psychological and pedagogical origins. New professional education: problems, challenges, perspectives*]. Kyiv: Vipol [in Ukrainian].
- Nikolaieva, S.Yu. (Ed.). (2013). *Metodyka navchannia inozemnykh mov ta kultur*. [*Methodology of Teaching Foreign Languages and Cultures*]. Kyiv: Lenvit (in Ukrainian).
- Bilodid, I. K. (Ed.). (1970). *Slovyk ukrainskoi movy* [*Dictionary of the Ukrainian Language* (Vols 1–11)]. Kyiv: Naukova dumka (in Ukrainian).
- Brit, N., Sushkevych, O., Solodchuk, A., Shulga, N. (2020). The Project Method: Practical Implementation in English Classroom. *Czech-Polish Historical and Pedagogical Journal*, 12(2), 189–200. <https://doi.org/10.5817/cphpj-2020-032>
- Byram, M., Fleming, M. (1998). *Language Learning in Intercultural Perspective*. Cambridge: Cambridge University Press.
- Chriss, R. (2006). *Translation as a Profession*. Brand: Lulu.com.
- Cydis, S. (2014). Fostering Competencies in Future Teachers: A Competency-Based Approach to Teacher Education. *Creative Education*, 5(13), 1–12. DOI:[10.4236/ce.2014.513130](https://doi.org/10.4236/ce.2014.513130)
- Dementieva, T. I. (2005). *Formuvannia komunikatyvnoi kompetentsii studentiv-inozemtsiv pidhotovchyykh fakul'tetiv u protsesi navchannia* [*Formation of communicative competence of foreign students of preparatory faculties during the learning process*]. [Unpublished DrSc dissertation]. H.S. Skovoroda Kharkiv National Pedagogical University.
- Deterding, S., Zagal, J. (Eds.). (2018). *Role-Playing Game Studies: Transmedia Foundations*. Abingdon: Routledge.

- DeVries, R. (2000). Vygostky, Piaget and education: A reciprocal assimilation of theories and educational practices. *New Ideas in Psychology*, 18, 187-213.
- Dori, Y.J., Avargil, Sh., Kohen Z., Saar, L. (2018). Context-based learning and metacognitive prompts for enhancing scientific text comprehension, *International Journal of Science Education*, 40(10), 1198-1220. DOI: [10.1080/09500693.2018.1470351](https://doi.org/10.1080/09500693.2018.1470351)
- Gile, D. (1995). *Basic Concepts and Models for Interpreter and Translator Training*. Amsterdam: Benjamins.
- Johansson, T. R. (2022). In defence of multiculturalism – theoretical challenges. *International Review of Sociology*. DOI: [10.1080/03906701.2022.2045141](https://doi.org/10.1080/03906701.2022.2045141)
- Kaba, F., Gjinali, A. (2023). Professional Translators and Translation Technology. *Journal of Educational and Social Research*, 13(2), 102-117. DOI: 10.36941/jesr-2023-045.
- Koval, V. O. (2013). *Teoretychni i metodychni zasady formuvannia profesiinoi kompetentnosti maibutnikh vchyteliv-filolohiv u vyshchyykh pedahohichnykh navchalnykh zakladakh* [Theoretical and methodical bases of formation of future teachers-philologists' professional competence in higher pedagogical educational institutions]. [Unpublished DrSc dissertation]. Institute of Higher Education at the National Academy of Educational Sciences of Ukraine [in Ukrainian].
- Kramsh, Cl. (1993). *Context and Culture in Language Teaching*. Oxford: OUP.
- Leontiev, A.N. (2009). *Activity and Consciousness*. CC-SA (Creative Commons Attribution-Share Alike 3.0). Marxists Internet Archive.
- Millennium Development Goals. (2003). Ukraine. Kyiv 2003.
- Miller, F. (Ed.) (2012). *Didactic Pedagogic Glossary*. Saarbrücken: LAP Lambert Academic Publishing.
- Modood, T., Meer, N. (2012). Interculturalism, Multiculturalism or Both? *Political Insight*, 3(1), 30–33. <https://doi.org/10.1111/j.2041-9066.2012.00097.x>
- Odacioglu M.C., Kokturk, S. (2015). The effects of technology on translation students in academic translation teaching. *Procedia – Social and Behavioral Sciences*, 197, 1085–1094.
- PACTE (2005). Investigating Translation Competence: Conceptual and Methodological Issues / A. Hurtado, A. Beeby, M. Fernández, O. Fox, I. Kozlova, W. Neunzig, M. Presas, P. Rodríguez, L. Romero. *Meta*. 50(2), 609–619.
- Popova, O. (2016). *Profesiino-movlennieva pidhotovka maibutnikh perekladachiv kytayskoi movy v umovakh universytetskoi pedahohichnoi osvity: teoretychnyi aspekt* [Linguistic and professional training of future translators from Chinese: theoretical aspect]. Odesa: Atlant.
- Robinson, D. (2007). *Becoming a Translator*. New York: Routledge.
- Rychen, S., Tiana, A. (2004). *Developing Key Competencies in Education: Some Lessons from International and National Experience*. Geneva: UNESCO-IBE, Studies in Comparative Education.

- Vygotsky, L. S. (1986). *Thought and language*. Cambridge, MA: MIT Press.
- Waring, M. (2014). *Understanding Pedagogy*. New York: Routledge.
- Yardley-Matwiejczuk, K. (1997). *Role Play: Theory and Practice*. London: Sage Publications.
- Ye FT-F and Buchtel EE. (2021). Multiculturalism, Culture Mixing, and Prejudice: Effects of Priming Chinese Diversity Models Among Hong Kong University Students. *Frontiers of Psychology*. 12:691858. DOI: 10.3389/fpsyg.2021.691858

# CHAPTER 4

## THE SYSTEM OF TRANSLATOR AND INTERPRETER TRAINING WITHIN THE UNIVERSITY INFORMATION AND EDUCATIONAL ENVIRONMENT

Yevhen Dolynskyi

### **Abstract**

The chapter is devoted to the issue of future translators' university training and assumes that the development of their readiness for their work would be efficient, provided it is carried out in the university information and educational environment (ICT tools of the Moodle electronic learning medium) within the pedagogical system suggested by the author. Said system was based on the analysis of the current state of pedagogical theory and the existing practice of using the university information and educational environment in future translators' training. The analysis helped to identify difficulties in future translators' training, factors for its improvement in the university information and educational environment, and the students' readiness for their future work. According to the analysis, the teachers' problems in specialized translation disciplines include the students' insufficient language command and personality development, lack of self-discipline, attention and responsibility; deficiency of motivation to achieve a high professional level; inadequate command of ICT tools and low creativity. On the other hand, the ways to boost the future translators' training are related to the improvement of educational content, the availability of learning material, the professional orientation of the learning process, its intensification through increased motivation, and the use of active methods and forms of learning, as well as modern technologies. The efficiency of the translator training system developed by the author, with due regard to the factors mentioned above, was tested in a three-year long experimental teaching process involving 169 participants from five Ukrainian universities. The experiment showed that the use of information and communication technologies in the process of professional training in the information and educational university environment provided for the students' awareness of their subjectivity in educational activities, the development of their independent work efficiency, and the modelling of professional situations. The information and educational environment granted opportunities for operational support and access to the necessary educational information, which facilitated professional training and the acquisition of relevant knowledge.

**Key words:** experimental teaching, future translators' training, ICT tools, Moodle, teachers' problems, university information and educational environment, ways to improve training.

The importance of future translators' professional training in the university information and educational environment is proved by numerous research data in the field.

The studies related to the personal qualities of future translators and their influence on mediation include the issues of the translators' individual communication style (Sobol, 2005), the development of their competitiveness in the market (Ababilova, 2012), their information culture (Nesterova, 2014), as well as their cognitive independence (Tarkhova, 2006) and professional outlook (Talanova, 2007), the translator's professional competence (Holovan, 2014) and the problems of the teaching of formal business communication (Pavlyk, 2004).

The domains involved in the future translators' training research vary in a wide range from the aviation industry (Bilous, 2016; Kolodiy, 2009) to the military field (Bloshchynskyi, 2016; Yankovets, 2005), technology (Panov, 2007; Pradivlyany, 2012), and agriculture (Tarasenko, 2017).

Theoretical aspects of translator training are related to translation in the domain of science and technology (Karaban, 2003), interpreting in the socio-political sphere (Miram, 2005), and the system of exercises in teaching specialised translation (Chernovaty and Kovalchuk, 2019). A number of research projects study the system of translator and interpreter training in various countries, such as the USA (Martyniuk, 2012; Skyba, 2014), Great Britain (Serhieieva, 2012); Germany (Amelina, 2014; Levytska, 2011) and others.

The use of innovative forms and methods in the professional training of future translators was studied by a number of authors (Aixela, 2004; Caminade, 1998). Pym (2019) analysed the history of development and the current state of translator training in the world context). Other authors (Voegelin, 1954; Casagrande, 1954; Bassnett-McGuire, 1991) studied the theoretical foundation of translation studies and its influence on translator training in the USA. A number of scholars (Gabr, 2001; Klaudy, 2006; Tennent, 2005) analysed the organization of translator training in universities; others looked into the role of information and communication technologies in translator training (Varela, 2007; Rogers, 2006), as well as the pedagogical aspects of specialized and technical translator training (Byrne, 2009).

The possibilities of applying information and communication technologies in the course of future translators' training (e-mail, social networks, Internet blogs, online dictionaries and translators, electronic libraries) are reviewed in the works by I. Bloshchynskyi (2016), S. Danyliuk (2012), L. Kartashova (2011), V. Kyrylenko (2013), T. Koval (2008), O. Matsiuk (2004), L. Morska (2008), A. Yankovets (2005) and others.

However, a comprehensive study of the didactic opportunities of a modern university's information and educational environment in the professional training of future translators, as well as restructuring, updating the content, forms and methods of its implementation, and purposeful development of students' readiness for future professional activities has not been undertaken so far.

Thus, we formulated a research hypothesis, which predicted the efficiency of the development of a future translator's readiness for their work, provided this process is carried out in the university information and educational environment (ICT tools of the Moodle electronic learning medium) within the pedagogical system suggested by the author.

The system in question is characterised by the introduction of appropriate pedagogical conditions, content, forms, methods, techniques and means into the educational process through the Moodle electronic medium. All those factors are expected to provide the prerequisites for the development of the students' translation competence components in the university information and educational environment, such as a good command of the languages involved in translation/interpreting, information technology, knowledge, skills, background and subject knowledge, professional value orientations, motives and personal qualities.

The analysis of the current state of pedagogical theory and the existing practice of using the university information and educational environment in future translators' training confirmed the assumptions of the existing problems and shortcomings and made it possible to outline the main ways to overcome them.

That analysis also helped to identify difficulties in future translators' training, factors for its improvement in the university information and educational environment, and the students' readiness for their future work (Dolynskiy et al., 2022).

According to the analysis, the difficulties faced by teachers when teaching specialized disciplines in translation, include: students' insufficient language command and comprehensive personality development; lack of self-discipline, attention and responsibility; deficiency of motivation to obtain high-quality professional training; inadequate information training; and low creativity.

Our analysis additionally facilitated the identification of student-friendly factors in the learning process: the improvement of educational content; the

availability of learning material; the professional orientation of the learning process; its intensification through increased motivation; active methods and forms of learning; and the use of modern technologies and technical means.

Having developed the system of translator training on the basis of the abovementioned factors (see Dolynskyi, 2019), we proceeded to the formative phase of our experiment. At this stage, we selected 169 participants (second-year students of five Ukrainian universities – Kyiv International University, Ivan Franko State Pedagogical University at Zhytomyr, Volodymyr Hnatiuk National Pedagogical University at Ternopil, Bohdan Khmelnytskyi National University at Cherkasy and National University at Khmelnytskyi).

First, we conducted a preliminary test to check the participants' levels and distribute them into experimental and control groups. For this purpose, they were asked to complete a 50-task test requiring the reproduction of knowledge in the multiple-choice format. The students got 0,1 point for each correct answer, which amounted to maximum possible 5,0 points for the entire test. The assessment was done on the basis of the participants' levels (high, sufficient, average, low) and corresponded to their grades in the ECTS scale, whose correlation with the domestic scale is shown in Table 4.1.

*Table 4.1.*

Correlation of the ECTS and domestic (Ukrainian) rating scales.

Evaluation of ECTS	Points	Domestic assessment	Mark
A	4.75–5.00	Excellent	5
B	4.25–4.74	Good (higher)	4
C	3.75–4.24	Good (lower)	4
D	3.25–3.74	Satisfactory (higher)	3
E	3.00–3.24	Satisfactory (lower)	3

The use of a multi-point rating scale made it possible to classify the students according to the levels of their readiness for professional activity. The quantitative indicators of low, medium and high levels are presented in table 4.2.

Table 4.2.

Quantitative indicators of levels of readiness for professional activity

Level	Low	Medium	Sufficient	High
Assessment for testing	Less than 3.00	3.00–3.74	3.75–4.74	4.75–5.00
(%) correctly completed tasks	1–59 %	60–75 %	76–90 %	91–100 %

As can be seen from Table 4.2, a low level of readiness for professional activity in the university information and educational environment is the performance within the slot of 1–59%, the medium level – 60-75%, the sufficient one – 76-90% and the high level – 91–100%.

The experiment lasted for three years, starting in the year 2015, when the participants were in their second year of study, and finishing in 2018, when they completed their undergraduate course (fourth year of study). Each year they were tested for progress in their translation competence, its dynamics and other information necessary for the possible adjustment of the content of teaching.

The first test (50 tasks) conducted for the second-year students was an initial measurement of the participants' professional knowledge. Therefore it contained tasks related to the disciplines “Translation practice with the focus on grammar”, “History of civilisation of English-speaking countries”, “Translation in the domain of society and politics”, “Practical English grammar”, “Practical English communication”.

According to the academic programme, the second-year students are expected to know the types of translation, equivalence, grammatical transformations and ways of rendering English articles. They are also expected to be able to translate written and spoken texts containing specific grammatical difficulties; apply contextual equivalents of the source language items in the target language; use appropriate transformations related to specific source language grammatical constructions in the process of translation, etc.

In choosing the content of the first test, we considered the fact that students have basic knowledge related to translation, know its techniques and can distinguish them, can recognize the complexity of tasks and take context-related professional decisions, and choose the correct translation equivalents from the list of polysemantic words (Rusnak, 2022).

Example 1. Sample test tasks of lexical and grammatical topics for second-year students.

1. Choose the correct translation version of the sentence: 'In 1889 Kreisler visited America, before returning to Vienna to finish his education and to do his military service'

a) У 1889 році Крейслер відвідав Америку, після чого повернувся у Відень, щоб закінчити свою освіту і відбути військову повинність.

b) У 1889 році Крейслер відвідав Америку, повертаючись з Відня, щоб завершити свою освіту та відслужити в армії.

c) У 1889 році Крейслер, повертаючись до Відня, відвідав Америку, щоб довчитись та відслужити в армії.

d) По поверненню з Відня у Америку, у 1889 році Крейслер закінчив навчання та пішов на службу в армію.

2. Identify the transformation used to translate the sentence: «The woman at the other end asked him to hang on» – «Жінка на другому кінці дроту попросила його не класти слухавку»:

a) Transposition; b) Replacement; c) Antonymic translation.

d) Inner partitioning.

3. Define the technique used to translate the two-component cluster *retirement benefits* – доплати у разі виходу на пенсію:

a) Full equivalent; b) Loan translation;

c) Descriptive translation; d) Contextual substitution.

4. Choose the phrase which is translated using a noun in the genitive case:

a) *Safety switch* – аварійний вимикач;

b) *Locked switch* – закрита стрічка.

c) *Toggle switch* – тумблер.

d) *Change-tune switch* – ручка налаштування.

e) *Data warehouse* – інформаційне сховище.

5. Indicate the part of speech used to render the meaning of the indefinite article in the sentence: He accepts a peace plan *proposed by the international «contract group»*. – Він погоджується з новим мирним планом міжнародної «контрактної групи»:

a) noun; b) adjective; c) pronoun; d) numeral.

The results of the first testing are shown in fig. 4.1.

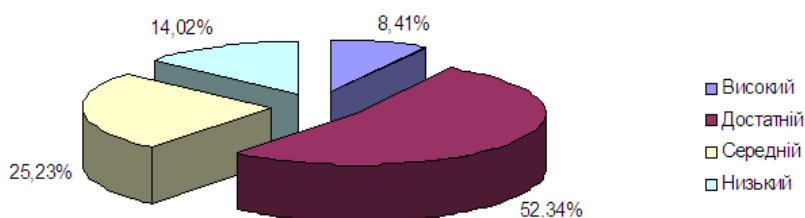


Fig. 4.1. The level of students' knowledge according to the first test results

As it follows from fig. 4.1, 8.41% of students achieved a high level, 52.34% achieved a sufficient level, 25.23% average, and 14.02% a low level. Based on these results, the 169 participants were distributed among the control (85 students) (CG) and experimental (84 students) groups (EG). The results of this distribution are shown in Table 4.3.

Table 4.3.

Distribution of the participants into experimental and control groups

Stage: Input control						
Levels of educational achievement	Assessment		$\sum_{total} = 169$ students			
	Traditional	ECTS	control group (85 students)		experimental group (84 students)	
			amount of students	% students with the appropriate level of educational achievement	number of students	% students with the appropriate level of educational achievement
High	4.75–5.0	A	6	7.41	6	7.55
Sufficient	3.75–4.74	B. C	47	55.56	46	54.72
Medium	3.00–3.74	D. E	21	24.07	19	22.64
Low	<3.00	FX. F	11	12.96	13	15.09
Selective average value ( $\bar{x}$ )			$\bar{x}$ c. gr. = 3,56		$\bar{x}$ e. gr. = 3,54	

Then we compared the distribution of students according to the levels of educational achievement based on the test results. The purpose of this statistical operation is to confirm the insignificant difference between the test results of the students of the two groups (CG and EG). To test the null hypothesis ( $H_0$ ), i.e., to make sure that there is no significant difference between the students of the two groups as far as their initial level is concerned, we used the  $\chi^2$  criterion (see table 4.4).

Table 4.4.

Calculation of the  $\chi^2$  criterion for the groups at the beginning of the experiment

№	Frequency		$f_1 \cdot f_1$	$f_1 + f_2$	$\frac{f_1 \cdot f_1}{f_1 + f_2}$
	$f_1$	$f_2$			
1	6	6	36	12	3.0000
2	47	46	2209	93	23.7527
3	21	19	441	40	11.0250
4	11	13	121	24	5.0417
$\sum_{total}$	85	84			42.81935

To confirm the reliability of the test results, we checked the statistical significance of its results using the  $\chi^2$  criterion according to the formula (Dolynskyi, 2019):

$$\chi_{emn}^2 = \frac{N \cdot N}{n_1 \cdot n_2} \cdot \left( \sum_{i=1}^k \frac{f_1 \cdot f_1}{f_1 + f_2} - \frac{n_1 \cdot n_1}{N} \right),$$

where  $N$  – the number of elements in both samples, in our case  $N = 169$ ;

$n_1$  – the number of elements in the first sample;

$n_2$  – the number of elements in the second sample;

$f_1$  and  $f_2$  – frequencies of the first and second samples, respectively.

It has been obtained that  $\chi^2_{emn} = 0,271512$ .

The number of freedom degrees is determined by the formula  $\nu = (k-1) \cdot (c-1)$ , where  $k$  – the number of digits of the characteristic;  $c$  – number of samples. In our case  $k = 4$  and  $c = 2$ . So,  $\nu = (4-1) \cdot (2-1) = 3$ . According to the tables of critical values,  $\chi^2$  we find:

$$\chi^2_{kp} = \begin{cases} 7,815 & \text{for } P \leq 0,05 \\ 11,345 & \text{for } P \leq 0,01 \end{cases}$$

We built the “axis of significance” (Fig. 3.2). The magnitude of the empirical value  $\chi^2_{emn}$  fell into the zone of insignificance. Thus, the hypothesis  $H_0$  is accepted that there is no difference between the distribution of students of the two groups according to the level of educational achievement in specialized disciplines at the experiment’s beginning.

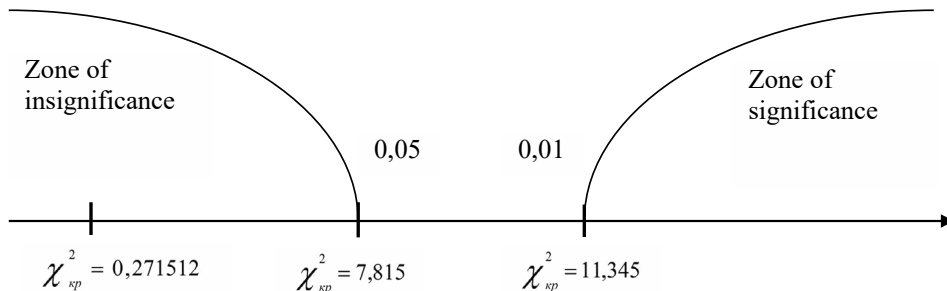


Fig. 4.2. The first test results significance

The second test (50 tasks) was conducted one year later (when the participants became third-year students) in order to assess the dynamics of their translation competence development, establish the efficiency of the proposed methodology, and make adjustments to the educational process. The testing included questions related to specialized disciplines taught in the 3rd year: “Translation of scientific and technical texts”, “English translation practice”, “Practical English language course”.

The content of the educational disciplines reflected in the test tasks, according to the academic programmes, involved such topics as: lexical and terminological problems of translation, the role of context in translation, translation of polysemantic words, types of lexical transformations, the rendering of Ukrainian proper names, nicknames, and ways to render geographical names.

According to the academic programme, the third-year students are expected to know the ways to render proper names, geographical names, the names of companies, newspapers or magazines; techniques to translate idiomatic expressions, international lexis, realia and neologisms; the principles of translating business correspondence, contracts, patents and other documents; lexical transformations; procedures to find the contextual lexical equivalents of the source text lexis and make functional substitutions in the process of translation, etc.

In choosing the content of the second test (see also Belyakov and Tokovenko, 2013), we took into account the list of the third-year students' knowledge and skills listed above. The examples of some tasks incorporated in the second test are given below.

*Example 2.*

1. What lexical transformation is used to translate the English sentence: *Men were in their forties and fifties* – Чоловіки були зрілого віку.

- a) Full rearrangement
- b) Logical development
- c) Omission
- d) Generalization
- e) Full rearrangement.

2. Indicate the translation technique used to translate the phraseological unit: *Good wine needs no bush* – Добре вино не потребує ярлику.

- a) Phraseological analogue
- b) Absolute equivalent
- c) Loan translation
- d) Descriptive translation.

3. What lexical transformation is used to translate the English sentence: *I'm a photographer. I do celebrities and authors for book jackets.* – Я – фотограф. Я фотографую видатних осіб та письменників для суперобкладинок.

- a) Antonymic translation
- b) Generalization.
- c) Concretization
- d) Sense development.

Successful completion of these tasks demonstrates that students are able to reproduce the correct contextual lexical equivalents in the original texts;

make functional substitutions during translation; and translate in writing, using lexical transformations during translation. The students' results are shown in Table 4.5.

Table 4.5.

Results of the second round of testing in the experimental and control groups

Stage: testing at the end of the 3rd year						
Levels of educational achievement	Assessment		$\sum_{total} = 169$ students			
	Traditional	ECTS	control group (85 students)		experimental group (84 students)	
			number of students	% students with the appropriate level of educational achievement	number of students	% students with the appropriate level of educational achievement
High	4.75–5.0	A	8	9,26	11	13,21
Sufficient	3.75–4.74	B. C	47	55,56	49	58,49
Medium	3.00–3.74	D. E	22	25,92	18	20,75
Low	<3.00	FX. F	8	9,26	6	7,55
Selective average value ( $\bar{x}$ )			$\bar{x}$ c. gr. = 3.65		$\bar{x}$ e. gr. = 3.77	

As it follows from table 4.5, unlike the first test, where the groups had more or less equal parameters, after a year of study, the EG participants start gaining advantage over their CG peers. This advantage is obvious at the high (almost 4% advantage) and sufficient (almost 3% advantage) levels of educational achievement. The aggregate advantage at the top two levels amounts almost to 7%. We may assume that the faster rate of EG participants' progress may be related to the experimental methodology applied in the EG.

The third test (50 tasks) was administered at the end of the third year of the experiment for the fourth-year students. Its purpose was to obtain the data for the final conclusions concerning the results of the experimental teaching.

The testing included questions related to specialized disciplines taught in the 4th year: “Translation in the domain of economics”, “Translation from English into Ukrainian”, “Practical communication in English”, “Sociolinguistic problems in translation”, “Theory of translation”.

The content of the disciplines reflected in the test tasks, in accordance with the academic programme, involved such topics as translation-relevant text typology; regulatory requirements for equivalence; principles, strategies and methods of translating texts of various genres; translation dominants; adequacy requirements for official business, scientific, academic, legal and technical translation; terminological aspects of translation.

The fourth-year students are expected to be capable of analysing the structural and compositional features of English and Ukrainian texts of various genres; to implement the principles and methods of linguistic stylistic analysis, to carry out the preliminary translation analysis and edit the source and target texts. They should also be capable of applying translation strategies and transformations aimed at overcoming lexical, grammatical and stylistic difficulties, as well as translating in accordance with the genre and stylistic norms of the target language. It is also important for them to apply electronic resources for solving translation problems (Arbol del, 2018).

In compiling the third test, we assumed that at this stage, students should understand the basic principles, methods and techniques of translating texts of various genres and functional styles (Kharchenko et al., 2021). Here are some examples of the third test tasks.

1. The other name of the situational model is:
  - a) super segmental
  - b) structural-semantic
  - c) denotative
  - d) referential
2. The situational model states that the basic equivalence of source text language units and target text language units is determined by its correlation with:
  - a) objects and phenomena of reality
  - b) mental processes
  - c) lexis
  - d) syntactical structures
3. In modern translatology, the term «translation» has:
  - a) one established definition
  - b) two opposite definitions
  - c) three correlated definitions
  - d) has no precise definition

4. Modern linguistics considers theory of translation as:
- a) the communicative transfer from one language into another one
  - b) the production with the means of other language of a text which is communicatively equal to the original text
  - c) the usage of two languages in the communicative process
  - d) the manifestation of bilingual activity in the communicative process
5. Communicative equivalence of the source text and target text has:
- a) semantic, grammatical and structural aspects
  - b) functional and semantic aspects
  - c) lexical and grammatical aspects
  - d) functional, semantic and structural aspects
6. The terms *bilingual communication*, *translation*, *lingual mediation* are:
- a) equal notions and serve as synonyms
  - b) opposite notions and serve as antonyms
  - c) different notions connected according to the principle of inclusion
  - d) different notions connected according to the principle of exclusion
7. Translation Studies as a separate branch of science appeared in:
- a) XX century      b) XIX century
  - c) Renaissance period   d) Middle Ages
8. The first works dealing with translation may be considered as an attempt to create:
- a) a linguistic theory of translation
  - b) demands to communicative theory of translation
  - c) a compilation of different translation methods
  - d) a compilation of some rules and demands to translation
9. The linguistic theory of translation appeared in:
- a) the early XIX century   b) the middle of the XX century
  - c) the second part of the XIX century   d) the second part of the XX century

10. The emergence of the linguistic theory of translation was stimulated by:
- great geographical discoveries of the XV-XVII centuries
  - the appearance of computers
  - the scientific-technical revolution
  - cultural revolutions in China
11. The main tasks of translatology are:
- the study of the process of translation and its norms, systematization of regular translation equivalences, description of ways and methods of translation, research of the history of diplomatic relations
  - the study of the process of translation and its norms, systematization of regular translation equivalences, description of ways and methods of translation, research of the history of translation
  - the systematization of regular translation equivalences, research of the history of translation, study of language and its norms
  - the study of language and its norms, description of ways and methods of translation, research of the history of translation
12. Types of translation are classified according to:
- The level of knowledge of a translator, volume of the source text, types of translation transformations
  - The methods of the source text perception and target text production, level of translation equivalency, volume of the source text
  - The methods of the source text perception and target text production, genre and stylistic features of the source text, goal of translation, level of translation equivalency
  - The volume of the source text, level of translation equivalency, types of translation transformations
13. Determine the semantic type of trope in the word combination «*silent thunder*»:
- metonymy
  - simile
  - synaesthetic metaphor
  - oxymoron
14. Name the correct type of a stylistic device: *He was so tall that I was not sure he had a face.*
- metaphor
  - epithet
  - antonomasia
  - hyperbole

16. Choose one synonym which belongs to the colloquial group of words  
 a) money b) dough c) currency d) dollar
15. Which trope involves understatement or underestimation of some features?  
 a) hyperbole b) epithet c) synecdoche d) litotes

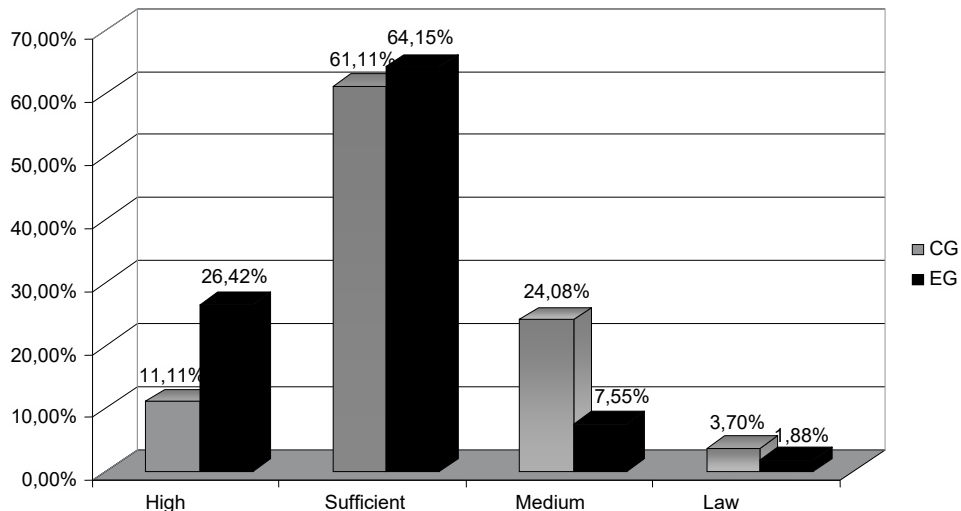
The results of the third test are presented in Table 4.6.

Table 4.6.

Results of the third round of testing in the experimental and control groups

Stage: testing at the end of the 4th year						
Levels of educational achievement	Assessment		$\sum_{total} = 169$ students			
	Traditional	ECTS	control group (85 students)		experimental group (84 students)	
			number of students	% students with the appropriate level of educational achievement	number of students	% students with the appropriate level of educational achievement
High	4.75–5.0	A	9	11,11	22	26,42
Sufficient	3.75–4.74	B. C	52	61,11	54	64,15
Medium	3.00–3.74	D. E	21	24,08	6	7,55
Low	<3.00	FX. F	3	3,7	2	1,88
Selective average value ( $\bar{x}$ )			$\bar{x}$ c. gr. = 3.79		$\bar{x}$ e. gr. = 4.14	

A graphical representation of the results of the third (final) round of testing in the control and experimental groups is presented in Figure 4.3.



*Figure 4.3. Diagram of the third round test results*

The results of the three tests turned out to be different, and there are notable differences in the knowledge assimilation coefficient and the criterion of the participants' readiness for professional activity. Let's consider this in more detail.

The mathematical processing of the obtained results included the calculation of the coefficient of knowledge assimilation, which is described in the study of A. Kyveryalg (see Dolynskiy, 2019).

$$K_{\zeta} = \frac{n}{N},$$

where  $K_{\zeta}$  – coefficient of knowledge assimilation;

$n$  – number of correct answers, completed tasks;

$N$  – number of educational tasks included in the test or control task.

The value of the coefficient of knowledge assimilation is within the limits  $-0 < K_{\zeta} < 1$ . In case of non-assimilation of knowledge –  $K_{\zeta} = 0$ , assimilation of the educational units of the content of coefficient of knowledge in full –  $K_{\zeta} = 1$ .

Following the mathematical processing of the results of the three tests, which were conducted in the second, third and fourth years of study, the coefficients of knowledge assimilation of the development of readiness for the future professional activity were calculated. They are presented in Table 4.7.

Table 4.7.

The results of the three tests (coefficient of knowledge assimilation)

Test number	control group	experimental group
Test 1	0.673	0.673
Test 2	0.679	0.7154
Test 3	0.706	0.784

To correlate the coefficient of knowledge assimilation to the defined levels (high, sufficient, average, low), we adapted the ECTS scale of 0.00 to 5.00 to a scale from 0 to 1:

$$N_i = \frac{x_i - x_{\min}}{x_{\max} - x_{\min}} \cdot N,$$

where  $0 \leq N_i \leq N$  – value of the new scale;

$x_i, x_{\min}, x_{\max}$  – the value of the old scale.

Therefore, we use an adaptive scale to convert the grades received on the ECTS scale into a coefficient of value (table 8). The obtained coefficients of knowledge assimilation, after three tests in relation to the data given in table 4.8, indicate an average level of knowledge assimilation.

Table 4.8.

Relationship of the ECTS scale with the coefficient of knowledge assimilation  $K_3$

Level	ECTS scale	Coefficient of knowledge assimilation $K_3$
Low	0.00–2.99	0–0.59
Average	3.00–3.74	0.6–0.748
Sufficient	3.75–4.74	0.75–0.948
High	4.75–5.00	0.95–1

The comparative EG results in the first and third tests prove that the participants' dynamics of the specialized disciplines' knowledge acquisition has a steady tendency to increase. The knowledge acquisition coefficient in EG at the end of the experiment, (in the third test) is significantly better the one in the control group (see Figure 4.4).

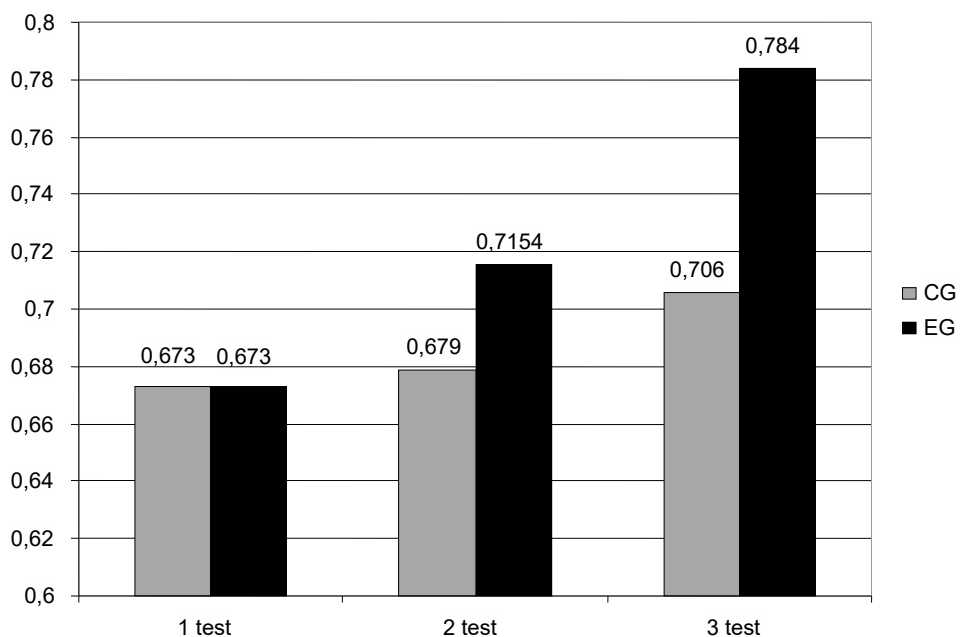


Fig. 4.4. Dynamics of the knowledge assimilation coefficient

The mathematical processing and verification of the obtained results involved the calculation of the knowledge assimilation coefficient using the method of A. Kyveryalg (see Dolynskyi, 2019), in relation to the European Community Credit Transfer System (ECTS). The dynamics of the knowledge assimilation coefficient were established through the comparison of the three measurements in the course of the pedagogical experiment (first: 0.673; second: CG – 0.679, EG – 0.7154; third: CG – 0.706, EG – 0.784).

The dynamics of the EG participants' professional training level and their readiness for future professional activity in the period between the first and third rounds of testing has a steady tendency for increase. Specifically, the control group's assimilation coefficient between the first and the third round of testing increased by 4.67. However, the same coefficient in the experimental group increased by 14.16%, which means almost a 10% advantage, which may be regarded as a proof of the proposed method's efficiency. The statistical check confirmed the reliability of the conducted research results.

Therefore, we may assume that the use of information and communication technologies (Moodle) in the process of professional training in the information and educational university environment ensured students' awareness of their subjectivity in educational activities, the development of their independent work efficiency, and the modelling of professional situations. The information and educational environment provided opportunities for operational support and access to the necessary educational information, which greatly facilitated the process of professional training and the acquisition of relevant knowledge (Varela, 2007).

As a result, it was confirmed that the use of the proposed didactic materials, complemented by the ICT tools of the Moodle electronic learning environment improves the professional training of future translators and intensifies the educational process (Arbol del, 2018).

The obtained data give reason to assert that the efficiency of the development of future translators' readiness for their professional activity in the university information and educational environment depends on the purposeful application of the proposed pedagogical system.

The results of the study confirmed the hypothesis that the development of the future translators' readiness for their professional activity may be more effective if the pedagogical system of future translator professional training suggested by the author is introduced into this process in the informational and educational university environment.

The proposed study does not cover all aspects of the problem. The structure and content of the professional training of future translators need further study, considering modern trends in the internationalization of higher education, requirements of the information society for the translators' professional activity etc.

## References

- Ababilova N. M. (2012). Formuvannia konkurentozdatnosti maibutnikh perekladachiv u protsesi profesiinoi pidhotovky (Development of future translators' competitiveness in the process of professional training) [Unpublished PhD dissertation]. K.D. Ushynsky South Ukrainian State Pedagogical University.
- Aixela, J. (2004). The study of technical and scientific translation: an examination of its historical development. *The Journal of Specialized Translation*, 1, 29–49. [http://www.jostrans.org/issue01/art\\_aixela.php](http://www.jostrans.org/issue01/art_aixela.php).
- Amelina S. & Tarasenko R. (2014). Aspects of media education in the formation of information competence of future translators. *Trendy Ve Vzdělávání*, 7, 162–165. Olomouc: Palacky University.
- Arbol del, E.V. (2018). Innovative Teaching Methods in Specialised Translation. *Modern Journal of Language Teaching Methods*, 8(12), 426-436.
- Archer, J. (2002). Internationalisation, technology and translation. *Perspectives: Studies in Translatology*, 10, 87-117.
- Bassnett-McGuire, S. (1991). *Translation Studies*. London: Methuen & Co.
- Bieliakov, V. & Tokvenko, A. (2013). *Lexical transformations in the translation of an artistic text*. URL: [http://confcontact.com/2013\\_04\\_17/13\\_Belyakov.htm](http://confcontact.com/2013_04_17/13_Belyakov.htm)
- Bilous, N. P. & Bilous, N.P. (2016). Problems of Training Translators for Aviation Industry. *Bulletin of Cherkasy natinal university named after Bohdan Khmelnytsky. Series: Pedagogical Sciences*, 5, 12-18.
- Bloshchynskiy, I. H. (2016). *Teoretychni ta metodychni osnovy profesiinoi pidhotovky fakhivtsiv derzhavnoi prykordonnoi sluzhby Ukrainy z vykorystanniam tekhnolohii dystantsiinoho navchannia* [Theoretical and methodological foundations of distant professional training of the state border guards] [Unpublished DrSc dissertation]. Khmelnytskyi National University.
- Byrne, J. (2009). The coming of age of technical translation. *The Journal of Specialized Translation*. 11. 2–5. URL: [http://www.jostrans.org/issue11/art\\_introduction.php](http://www.jostrans.org/issue11/art_introduction.php).
- Caminade, M. & Pym, A. (1998). Translator-Training Institutions. In M. Baker (Ed.). *Routledge Encyclopedia of Translation Studies*. London and New York: Routledge. 280–285.
- Casagrande, J. B. (1954). The Ends of Translation. *International Journal of American Linguistics*, 20(4), 335–340.

- Chernovaty, L. & Kovalchuk, N. (2019). Teaching non-fiction translation: the system of exercises and tasks. *Advanced Education*, 12, 5-11.
- Danyliuk, S. S. (2012). Osoblyvosti vykorystannia internet-tekhnologii «bloh» u protsesi formuvannia profesiinoi kompetentnosti maibutnikh filolohiv [Specifics of the use of the Internet “blog” technology in the process of the future teachers’ professional competence development]. *Informatsiini tekhnologii i zasoby navchannia*, 3 (29), URL: <https://journal.iitta.gov.ua/index.php/itlt/article/viewFile/682/507>.
- Dolynskiy, Ye. (2019). *Teoretychni i metodychni osnovy profesiinoi pidhotovky maibutnikh perekladachiv v informatsiino-osvitnomu seredovyshchi universytetu* [Theoretical and methodological training of future translators in the informational and educational university environment] [Unpublished DrSc dissertation]. Khmelnytskyi National University.
- Dolynskiy, Ye., Dolynska, O., Kharchenko, T., Kravchenko, O. & Skril, I. (2022). Development of Interpretation Skills in Future Escort Interpreters for Work in International Tourist Activity. *Journal for Educators, Teachers and Trainers*, 13 (1), 310–324. <https://jett.labosfor.com/index.php/jett/article/view/682/537>.
- Gabr, M. (2001). Toward a model approach to translation curriculum development. *Translation Journal*, 5(4), URL: <http://translationjournal.net/journal/16edu.htm> (last accessed: 21.01.2019).
- Holovan, M. S. (2014). Profesiina kompetentnist vykladacha vyshchoho navchalnoho zakladu (Professional competence of a university teacher). *Problemy suchasnoi pedahohichnoi osvity. Ser.: Pedahohika i psykholohiia* [Problems of modern pedagogical education. Ser.: Pedagogy and Psychology], 44(3), 79–88.
- Int, A. (2009). Translator training and modern market demands. *Perspectives: Studies in Translatology*, 13, 132-142. 10.1080/09076760508668982.
- Karaban, V. I. (2003). *Posibnyk-dovidnyk z perekladu anhliiskoi naukovoï i tekhnichnoi literatury na ukrainsku* [Reference book on the translation of English scientific and technical literature into Ukrainian]. URL: <http://elib.npu.edu.ua/info/4XJp4hmMIEk47w>.
- Kartashova, L. (2011). The problems of informational and technological software of modern teacher. *Visnyk Cherkaskoho universytetu. Ser.: Pedahohichni nauky* [Bulletin of Cherkasy University. Ser. Pedagogy], 21, 189–194.
- Kharchenko, T, Semashko, T., Dolynskiy, Ye., Bospala, L.& Ivanova, T. (2021). Use of Moodle LMS-Based Tests for Enhancing Linguistic Competence of Students Majoring in Foreign Language Philology. *Journal of Curriculum and Teaching*, 10(4), 67-81. URL: <https://doi.org/10.5430/jct.v10n4p67>.
- Klaudy, K. (2006). The Role of Translation Theory in Translator Training / Paper presented at the EMT Conference, Brussels, 19–20. October 2006. URL: [www.scribd.com/doc/44810451/Translation-Theory](http://www.scribd.com/doc/44810451/Translation-Theory)
- Kolodii, I. A. (2009). Aspekty formuvannia intehralnoi profesiinoi kompetentnosti u maibutnikh perekladachiv aviatsiinoi haluzi [Aspects of the development of

- future translators' integral professional competence in the domain of aviation]. *Visnyk pisladyplomnoi osvity [Bulletin of postgraduate education]*, 11(1), 112-118. [http://nbuv.gov.ua/UJRN/Vpo\\_2009\\_11%281%29\\_\\_16](http://nbuv.gov.ua/UJRN/Vpo_2009_11%281%29__16)
- Koval, T. I. (2008). *Teoretychni ta metodychni osnovy profesiinoi pidhotovky z informatsiinykh tekhnolohii maibutnikh menedzheriv-ekonomistiv [Theoretical and methodological basis of professional training in information technology of future managers in economics]*. [Unpublished DrSc dissertation]. Kyiv National Linguistic University.
- Kyrylenko, V. V. (2013). *Formuvannia informatsiinoi kultury maibutnikh uchyteliv-filolohiv u protsesi fakhovoi pidhotovky [Development of the future teachers-philologists' informational culture in their professional training]* [Unpublished PhD dissertation]. Vinnytsia State Pedagogical University.
- Levytska, N. V. (2011). Kontseptualni zasady profesiinoi pidhotovky perekladachiv v krainakh Zakhidnoi Yevropy [Conceptual basis of translator training in Western Europe]. *Visnyk Natsionalnoi akademii Derzhavnoi prykordonnoi sluzhby Ukrainy (Bulletin of National Academy of State Border Department)*, 5. URL: [http://nbuv.gov.ua/UJRN/Vnadps\\_2011\\_5\\_16](http://nbuv.gov.ua/UJRN/Vnadps_2011_5_16).
- Olvera-Lobo, M.-D. & Gutiérrez-Artacho, J. (2014). Academic use of custom social networks in translation training. *Perspectives*, 22(2), 282-289.
- Martyniuk, O. V. (2012). *Profesiina pidhotovka mahistriv tekhnichnoho perekladu v universytetakh USA (Professional training of technical translators in US universities)* [Unpublished PhD dissertation]. Khmelnytskyi National University.
- Matsiuk, O. (2014). Intensyfikatsiia protsesu navchannia inozemnykh mov zasobamy IKT pid chas profesiinoi pidhotovky maibutnikh perekladachiv [Intensification of teaching foreign languages by means of ICT in the professional development of future translators]. *Youth and market. Molod i rynek*, 2, 90–94. URL: [http://nbuv.gov.ua/UJRN/Mir\\_2014\\_2\\_18](http://nbuv.gov.ua/UJRN/Mir_2014_2_18)
- Miram, H. E., Hon, O. & Morozov, V. (2005). *Praktykum z usnoho perekladu: Multymediinyi format: posib. z anhl. movy dlia ZVO [Practice in interpreting. Multimedia format: manual for university students]*. Kyiv: Fakt.
- Morska, L. I. (2008). *Teoretyko-metodychni osnovy pidhotovky maibutnikh uchyteliv inozemnykh mov do vykorystannia informatsiinykh tekhnolohii u profesiinii diialnosti [Theoretical and methodological foundations of training teachers of foreign languages in the use of informational technologies in the professional field]*. [Unpublished DrSc dissertation]. Ternopil Volodymyr Hnatiuk National Pedagogical University.
- Nesterova, O. Yu. (2014). *Rozvytok informatsiinoi kultury maibutnikh perekladachiv v umovakh vyshchoho tekhnichnoho navchalnoho zakladu [Development of future translators' information culture in a technological university]*. [Unpublished PhD dissertation]. Crimean Humanitarian University.
- Panov, S. F. (2007). *Profesiina pidhotovka tekhnichnykh perekladachiv v umovakh vprovadzhennia kredytno-modulnoi systemy navchannia [Professional training of*

- technical translators within the credit-module system]. *Visnyk NTUU "KPI". Filosofiia. Psykholohiia. Pedahohika*, 3(1), 86–89.
- Pavlyk, O. B. (2004). *Profesiino-pedahohichna pidhotovka maibutnikh perekladachiv do vykorystannia ofitsiino-dilovoho movlennia* [Professional and pedagogical training of future translators to conduct the formal business communication]. [Unpublished PhD dissertation]. Khmelnytskyi National University.
- Pradivlianyi, M. H. (2012). Metodyka vyvchennia terminolohichnykh odynts v naukovotekhnichnykh tekstakh. (Methodology of learning terminological units in scientific-technical texts). *Teoretychni pytannia kultury, osvity ta vykhovannia* [Theoretical issues of culture, enlightenment and education], 45, 86–90. URL: [http://nbuv.gov.ua/UJRN/Tpkov\\_2012\\_45\\_24](http://nbuv.gov.ua/UJRN/Tpkov_2012_45_24)
- Pym, A. (2019). *Translator training: A Global Overview*. URL: <http://www.tinet.cat/~apym/on-line/training/stauffenberg.pdf>
- Rogers, M., Korkas, V. (2006). *Technology in the Translation Curriculum. – A Process-oriented Approach to Assessment*. URL: [ebookbrowse.com/benjamin-the-task-of-the-translator-pdf-d49644967](http://ebookbrowse.com/benjamin-the-task-of-the-translator-pdf-d49644967).
- Rusnak, I., Vasylyk, M., Dolynskiy, Ye., Severina T. & Vornyk, M. (2021) The effectiveness of applying the communicative approach in teaching English at higher education institutions. *AD ALTA: Journal of Interdisciplinary Research*, 11(1), Special Issue XVI, 138–144. URL: <http://www.magnanimitas.cz/ADALTA/110116/PDF/110116.pdf>
- Sierhieieva, O. V. (2012). *Profesiina pidhotovka perekladachiv v universytetakh Velykoi Brytanii* [Professional translator training in British universities]. [Unpublished PhD dissertation]. Khmelnytskyi National University.
- Skyba, K. M. (2015). Profesiina pidhotovka perekladachiv v systemi vyshchoi osvity USA [Professional translator training in US universities]. *Naukovi zapysky Ternopilskoho natsionalnoho pedahohichnoho universytetu imeni Volodymyra Hnatiuka. Seriiia : Pedahohika* [Scholarly Notes of Ternopil Volodymyr Hnatiuk National Pedagogical University. Series: Pedagogy], 3, 45-51. [http://nbuv.gov.ua/UJRN/NZTNPU\\_ped\\_2015\\_3\\_9](http://nbuv.gov.ua/UJRN/NZTNPU_ped_2015_3_9)
- Sobol, N. M. (2005). *Formuvannia indyvidualnoho stylu profesiinoho spilkuvannia maibutnikh perekladachiv* [Development of future translators' individual style of professional communication]. [Unpublished PhD dissertation]. Ternopil Volodymyr Hnatiuk National Pedagogical University.
- Talanova, Zh. P. (2007). *Pedahohichni umovy formuvannia profesiinoho svitohliadu maibutnoho perekladacha* [Pedagogical conditions of the future translators' professional outlook development]. [Unpublished PhD dissertation]. Kirovohrad State Pedagogical University.
- Tarassenko, R. O. (2017). *Teoretychni i metodychni zasady formuvannia informatsiinoi kompetentnosti maibutnikh perekladachiv dlia ahrarnoi haluzi u vyshchykh navchalnykh zakladakh* [Theoretical and methodological foundations of the future translators' information competence development at agricultural universities]. [Unpublished PhD dissertation]. Drahomanov National Pedagogical University of Kyiv.

- Tarkhova, L. A. (2006). *Formuvannia piznavalnoi samostiinosti maibutnikh perekladachiv u protsesi profesiinoy pidhotovky* [Development of future translators' cognitive independence in the process of professional training]. [Unpublished PhD dissertation]. K.D. Ushynsky South Ukrainian State Pedagogical University.
- Tennent, M. (2005). *Training for the new millennium: pedagogies for translation and interpreting*. Amsterdam: John Benjamins Publishing Company.
- Varela, M. (2007). How New Technologies Improve Translation Pedagogy. *Translation Journal*, 11(4), 1–14. URL: <http://translationjournal.net/journal//42technology.htm>
- Voegelin, C. F. (1954). Multiple Stage Translation. *International Journal of Applied Linguistics*. 20(4). 271–280.
- Yankovets, A. V. (2005). *Pidhotovka maibutnikh perekladachiv zasobamy informatsiino-komunikatsiinykh tekhnolohii u vyshchyykh viiskovykh navchalnykh zakladakh* [Training future translators through information and communicative technologies at military universities]. [Unpublished PhD dissertation]. Khmelnytskyi National University.

# SECTION 3

## THEORETICAL FOUNDATIONS

### OF TRANSLATOR AND INTERPRETER TRAINING

#### CHAPTER 5

##### A RETROSPECTIVE ANALYSIS

##### OF THE TRANSLATOR'S NOMINATION

##### OR HOW TO FIND SENSE IN NONSENSE

Oleksandr Rebrii

#### **Abstract**

This research is dedicated to the specifics of the translator's nomination, as determined as a result of the retrospective experiment. The starting point for the experiment was an assumption that the need for the translator's nominative activity arises every time when the absence or irrelevance of a regular equivalent in a target language forces them to create a corresponding nominative means by themselves. To this end, I developed on the basis of D. Gile's methodology my own task-oriented experiment, which was named the *Partial Delayed Report of Problems and their Solution* or *PDRPS*. During the experiment, its semi-professional subjects, 78 students of the Master's Program at the School of Foreign Languages, were tasked with translating a short verse by Spike Milligan containing 4 nonce formations. The experiment revealed regularity between the translator's ability to ascribe a meaning to the unit absent in their mental lexicon and to form its mental representation, on the one hand, and nomination process, on the other. The subjects' reports confirmed their ability to act heuristically and combine sense-oriented and form-oriented approaches while opting for a particular strategy. The strategy was chosen on the basis of a complex assessment of both linguistic and extra-linguistic (situational) context. In terms of didactics, the experiment provided a unique chance to the students to exert their creative potential and to experience the complexity of resolving translation difficulties.

**Introduction.** Nomination is the central concept of Onomasiology, the linguistic branch whose name is taken from two ancient Greek words – *ónoma*, which means 'name', and *logos*, which is translated as 'science' or 'study of'. Thus, Onomasiology can be understood as 'the study of designations' and its goal is "to find the linguistic forms, or the words, that can stand for a given concept / idea / object" (Grzega, Schöner 2007, p. 7). Unlike word-formation, which as a linguistic branch is concerned with the technical aspect of lexical coinages (e.g., methods of word-formation),

Onomasiology strives to describe the process of name-giving, including its mechanisms, and internal and external triggers.

The need for the translator's nominative activity arises every time when the absence or irrelevance of a regular equivalent in a target language forces him or her to create a corresponding nominative means by him/herself. So far, Translation Studies has been actively exploring the problem of word-formation, which is basically the problem of translational methods like transcription, transliteration, loan translation (calque), etc., as well as its cultural and/or stylistic preconditions. At the same time, the nominative specifics of translation in its procedural (cognitive, psycholinguistic, discursive) dimension is still waiting for scientific investigation.

**Theoretical background.** The Theory of Nomination deals with relations between the object's mental projection (its image or concept) and its name, i.e., puts forward the global task of researching the ties between the environment, mind and language. For the specialists in the field of Translation Studies, a cognitive approach to nomination is of supreme importance, because only by realizing the difference in mental representations of the same object in the minds of members of different linguistic and cultural communities can they explain the variability of the nominative processes in them.

From an ethno-psycholinguistic perspective, any text in a source language is a priori *lacunized* and thus requires *de-lacunization* by means of a target language. De-lacunization is regarded as un-coding the meanings of non-equivalent signs (i.e., lexical lacunae) of an original text and their re-coding into the signs of a translated text. Among the methods of de-lacunization, special attention is given to *creativization* defined as a "formation by a translator of a lexical unit with a set of semes close to that of an original word" (Rebrii 2014, p. 334). In terms of this research, creativization is the same as the translator's nomination.

Nomination plays another important role in translation – it serves as a powerful tool shaping both national and individual linguistic worldviews, because, as we all know, two major functions of a linguistic worldview are designation and explication of those elements of a conceptual worldview that gain special weight for human existence, communication included.

Translation provides a communication channel, through which some notions already verbalized in one linguistic community can penetrate another linguistic community. Due to the translator's nominative activity,

target recipients can share the experience that has already been linguistically embodied and fixed in the mentality (that is, national linguistic worldview) of the source language bearers.

A few words should be said about human *mental lexicon* which serves as an operative base for the translator's nomination. Jean Aitchison describes mental lexicon simply as "a mental dictionary" or "a human word-store" (1987, p. 9). In his doctoral thesis, Gustavo Lopez Estivalet elaborates on this lapidary definition: "The mental lexicon is broadly understood as the speaker's memory related to language representations, that is, where the words are stored. However, storage should not be taken as the store of whole word units, and the mind should be understood as the specific brain mechanisms that encode and process this information. The mental lexicon has an abstract and complex structure for the representation and access of words through semantic features for syntactic constraint" (2017, p. 45–46).

There's still much debate as to the architecture of a mental lexicon and mechanisms of its work, though "psycholinguists have found that a word is stored along with its phonological and orthographic (in the case of educated speakers) shapes and which in turn, are related to the syntactic and semantic aspects" (Sripada 2008, p. 181). This approach to mental lexicon recognizes the role of a word as a substitute for an object (fragment of reality) in a human mind, which stipulates its capacity to denote this object, refer to it, actuate in brain any kind of related knowledge (both linguistic and extralinguistic) and, finally, operate this object in mental and speech processes. In other words, a word in mental lexicon represents not only a certain amount of information about an object per se but also certain information about potential strategies of its use in different types of discourse. This statement has very important implications for investigating the translation process as it allows one to better understand the mechanics of the translator's actions concerning selecting a nominative form (method of translation) itself as well as combining a freshly coined lexical sign with other words and adding it to the communicative situation and discourse in general.

Now, let me switch to what I call the specifics of initiating the translator's nominative action, which might also be called its starting point or precondition. Here, I distinguish three potential situations, in which the translator is likely to resort to nominative activity:

1. The first situation takes place when an original word has no equivalent in the target language, which, in its turn, happens due to the fact that the

object denoted by this word is not familiar to the representatives of the target linguistic community. If this object is part of the real world, the translator can refer directly to it (or any objective form of its representation such as a photo, video, or audio recording) in order to form his / her own mental image (concept) that would lay a foundation for selecting a linguistic form for coining the target equivalent. If the object is part of an imaginary (alternative) reality, the translator's nominative task becomes more complicated, but at the same time more creative as it stipulates the formation of the object's mental image proceeding from its verbal description alone.

2. The second situation appears when an original word has a target equivalent, which is absent in the translator's mental lexicon due to some subjective factors. As a result, the translator resorts to the nominative activity and creates an equivalent, which hypothetically can substitute the existing one in the target language with the lapse of time. I believe that today – with the availability of and swiftness in obtaining access to unlimited information resources – this type of situation is more likely to take place in oral translation. In addition, such quasi-necessity can be prompted by what psycholinguists characterize as the “operation of subjective identification” (Rebrii 2014, p. 338). They claim that the speaker (translator, in our case) can produce an ad hoc word and be confident that he or she used a regular linguistic unit. There are several reasons for such quasi-identification. Firstly, it's importance for the translator of the meaning projected by the word's mental image (as a result, he or she has an illusory feeling that (s) he uses the “correct” equivalent) and secondly, it's the knowledge of word-formation mechanisms and the ability to utilize them to one's own advantage (for example, at our translation classes we teach the students how to use the word's morphological structure for its interpretation, give them information about productive methods and models of English word-formation, etc.).

3. The third situation is observed when an original word has a target equivalent, which, for some subjective reason(s), does not suit the translator prompting him to get engaged into nomination. The need for word-formation in this case is not much of a nominative but rather of cultural, discursive, stylistic or personal character. It looks like the translator's goal is not to give a name to an object but to turn the recipient's attention to it, to make the situation more expressive or culturally available.

It should also be noted that in many cases the translator can avoid nomination in two possible ways: either use a regular lexeme of a target

language as an equivalent or give an object's description. The first way is characterized as the extension of the sign's semantic potential by adding to it the reference to a new object, while the second way (the so called 'descriptive translation') is usually considered the least favourable method of translation due to its inconvenience and inability for its result to be fixed in both mental lexicon of an individual and a dictionary of a language.

My research and experiments conducted within its framework involve literary discourse texts only, so I believe that nomination is very often a preferable choice for translators in this field as well, though, perhaps, for quite different reasons. In literary discourse, lexical innovations are mostly of an ad hoc character and are known as nonce words. By selecting the strategy of their transference from a source text into a target one, the translator acknowledges their stylistic (expressive) function which dominates in fiction literature.

A very important aspect of the translator's nomination that demonstrates its creative essence is the selection of an onomasiological mark (also, motivation identifier) of a future name that is not obligatorily identical to that in a source word. It's obvious that this selection process falls under the influence of a number of factors. By finding the most relevant of them to the situation (context) and his / her intention, the translator can make the most optimal decision. Let me comment on these factors briefly:

1. *Motivation identifier and method of word-formation of a source word.* This factor seems most relevant for translators that are strategically oriented towards a source text, i.e., those who are trying diligently to re-create both semantic and structural characteristics of the source item. But how effective is this factor? There are different theories as to this issue. One may suppose that translation can be done only on condition that the translator understands certain conceptual structures that are embodied into linguistic signs or, in other words, has a certain image of an object, which is indifferent as to the sign form it exists in. Proceeding from this logic, one may conclude that the material form of a linguistic sign does not influence the formation of its mental representation that, in its turn, serves as a basis for selecting a motivation identifier of a target nomination as well as the method of its coining.

Alternatively, there is an opinion that an object's mental representation is inalienable from its graphic and phonetic expression, which taken together provide for the integrity and completeness of a sign perception

and interpretation by a recipient. The word as a sign demonstrates double nominative nature. On the one hand, it represents the object as a whole – together with all its exposed and unexposed properties – and thus performs an identification function. On the other hand, for the interpreter, it serves as a form of an object's representation due to its peculiar trait that has acquired a status of an onomasiological mark. That is why I stick to the position, according to which the form of an original word, i.e., the method of its formation together with a motivation mark, can play an important role for the result of the translator's nomination.

2. *Specifics of a target language.* This factor is usually regarded as restraining, because nomination tools and techniques of source and target languages may vary to a considerable extent. At the same time, among translators and translation researchers there is a popular opinion that any modern and dynamic language has enough means and methods for implementing an act of nomination of any level of complexity. And yet, the variability and richness of a target language arsenal does not guarantee the translator's ability to preserve the original motivation identifier in a freshly coined equivalent, which turns me to the next factor.

3. *Specifics of a target culture, mythology, ideology.* Any scholar researching cognitive aspects of speech formation in general and translation in particular, sooner or later faces the challenge of culturally bound differences in conceptualizing and categorizing reality. These differences are most evident at the lexical level, so I would assume that the pressure of cultural peculiarities could force the translator to change the motivation identifier and word-formation method. This may happen if the original identifier (a) has in a target cultural environment a different associative potential or no associative potential at all; (b) is of a taboo character. In order for the translator to solve culturally-bound problems of nomination, he or she should develop the ability to structure information obtained through verbal and non-verbal channels in accordance with the specifics of its conceptualization and categorization in both source and target cultures.

4. *Specifics of the translator's individual cognitive organization.* Describing the possible effect of this factor, I turn to methodology of Carl Gustav Jung, who divided authors of literary works – as subjects of creative action in relation to a literary work as its object – into 'extraverts' and 'introverts'. This metaphysical in its essence classification fits perfectly into the situation of translation in which it acquires quite a realistic character

primarily due to the fact that the translator deals not with an ‘ideal’ concept of a work but with its ‘material’ embodiment.

A translator-extravert is characterized by an approach, within which he or she “purposefully and consciously processes his / her material by adding something here or taking away there, underlying one nuance and hiding another”; thus, he or she “accelerates the force of his / her judgment and selects expressions with complete freedom” and feels that “his / her material is just material – obedient to his / her artistic will” (Rebrii 2014, p. 274). Conversely, a translator-introvert is characterized by an approach, within which the original “literally imposes itself”, “as if it guides one’s hand”, “brings its form with it”; and the translator feels as though “his / her work is superior and that’s why it has power over him / her which can’t be resisted” (ibid.).

I assume that when a translator-extravert faces a potentially nominative situation he or she is more inclined towards expressing his / her individuality by changing the original motivation identifier. A translator-introvert, on the contrary, will probably do his / her best to find in a target language the means necessary for preserving the original motivation identifier. In reality, both psychological types can possibly coexist within one person, taking over each other depending upon the situation.

In concentrating upon the needs and expectations of a potential target recipient, the translator is striving to make the translated text more natural and bases his or her decisions on his / her opinions as to the contents of a source text as well as to the preferences of a prognosticated audience. The efficiency of this prognostication depends on the translator’s intellectual background, because his / her decision-making is always guided by available cognitive experience. The broader this experience is, the more successful will be the search for an adequate nominative equivalent.

The most complicated cognitive operations in the way of the translator’s nomination involve forming a mental representation of a linguistic sign and then juxtaposing this concept with available knowledge of language(s), culture(s), discourse(s), situation(s), etc. Both operations involve complex searching: in the first case, for a sense, and in the second one – for the means of its verbalization. The translator’s orientation towards existing (regular) equivalents only may lead to emerging cognitive dissonance – a specific mental state when an individual holds two or more elements of knowledge that are relevant to each other but inconsistent with one another. In case of

interlinguistic lacunae, the inconsistency becomes apparent when an element of reality conceived in a source culture and verbalized in a source language has no verbal forms of representation in a target language. As a result, the translator experiences negative emotions due to discrepancy between his / her expectations and the real state of affairs. But the adaptive nature of the human psychological setup reveals itself in the fact that dissonance itself serves as a strong stimulus to actions aimed at its reduction. There are two possible ways to do it: (1) at the expense of decreasing the number of dissonant elements (or increasing the number of consonant elements); (2) at the expense of transforming dissonant elements into a consonant state. In the case of opting for a nominative way of liquidating interlinguistic lacunae, the translator follows both paths simultaneously. By creating an equivalent nominative sign he, thus, converts a non-equivalent dissonant element into an equivalent consonant one.

Summing up, I would like to say that the translator's nomination demonstrates his or her ability to see a thought behind the words, i.e., to be competent enough to form a coherent mental structure on the basis of perceived source textual material and then verbalize it by the means of a target language into a target textual structure.

By means of a retrospective experiment, I intend to trace and (hopefully) confirm some of the above theoretical provisions as to the cognitive essence of the translator's nomination.

### **Preparing the experiment.**

*Aim of the experiment:* By developing the experiment's structure, I departed from its aim – to expose the cognitive nature of the translator's nomination. Hand in hand with this global challenge goes a string of other – and no less important – tasks such as: to demonstrate strategies of reproducing non-equivalent words, to describe the creative potential of nomination in translation, to expose the logic of decision-making and problem-solving, etc.

It's essential to understand that my attention in analysing the obtained results was focused on the translator's nomination and, thus, all the aspects of the subjects' behaviour selected for the analysis are in some way connected with this particular issue. To this end, I realised the necessity of organizing a *task-oriented experiment*, the elements of which would potentially contribute to the aim set. My first assignment was to find the appropriate material.

*Material of the experiment:* Having reflected on different types of non-equivalent vocabulary, I made a choice in favour of lexical nonsense, which is understood here as “an integrated, non-conventional combination of conventional elements of phonemic and / or morphemic levels of a language system” (Voronina 2012, p. 4). My choice was determined by the following reasons. First, lexical nonsense is characterized by complexity of interpretation due to such properties as “referential and signification indeterminateness and semantic ambiguity” (ibid); as a result, different structural models of lexical nonsense can hypothetically produce an unlimited number of interpretations, which can potentially result in lots of creative decisions. Second, due to the above properties of lexical nonsense, the translator’s mind may generate no clear and coherent mental representation of it at all, which fact can lead to a mental state of dissonance and, correspondingly, to a communicative failure. Third, nonsense is usually free from (obvious) cultural connotations that would distract the translator’s mind towards solving ethno-cultural problems instead of nomination ones.

As a material, I selected the poem by one of the most prominent English children’s authors Spike Milligan “*Itchy Koo Land*”. On the one hand, Milligan’s style is very distinct from that of other children’s poets as it is based not so much on imitating children’s language and feelings as on the ability to act as a child and to see the world with their eyes. On the other hand, Milligan’s works are regarded to be dually addressed – both for children and for adults – and this fact, in my opinion, must be taken into account by prospective translators as the one that determines the functional direction of a target text in general, and the translator’s nomination within it in particular.

The control elements for the experiment are nonsense formations (also referred to as quasiwords): two manufactured words (1) *Itchy Koo Land* and (2) *Ying tong iddle I Po*, and two onomatopoeic coinages (3) *Ting-a-ling-a-ling* and (4) *Swank*. Although the last of these units coincides in form with a regular English word, I believe that in the context of Milligan’s work it acquires a new ad hoc meaning. In the course of the experiment, I intend to see how its subjects will ascribe meanings to the lexical units absent in both their mental lexicons and dictionaries. I characterize this stage of the nomination process as the translator’s ‘internal creativity’. Then I would also like to see in what linguistic forms these newly ascribed meanings will be embodied, and I characterize this stage of the nomination process as the translator’s ‘external creativity’.

Finally, Milligan's poems have never been translated into Ukrainian, which I take as a guarantee against secondary translation influence. Here is the full text of the poem:

**Itchy Koo Land**

I wish I were in **Itchy Koo Land**,

With a little piece of string

I'd tie a little bell on it

**Ting-a-ling-a-ling!**

I wish I were in Itchy Koo Land,

A penny in the bank

I'd draw it out and spend it all

**Swank! Swank! Swank!**

I wish I were in Itchy Koo Land,

A pot of purple paint

I'd paint myself from head to foot

And make poor mummy faint

I wish I were in Itchy Koo Land,

Where adults never ever

And children live for ever

**Ying tong iddle I Po**

*Participants of the experiment:* I would like to begin with a few words about the selection of participants (also: respondents or subjects) for translation experiments. Basically, they are divided into three broad categories – professionals, semi-professionals and non-professionals – each of which (quite predictably) has its advantages and disadvantages. Non-professionals are subjects who learn a foreign language but not as linguists, i.e., for pleasure or fore use in a professional sphere other than translation or language teaching. Non-professionals may have a pretty good command of a foreign language but do not have (or lack) any specific knowledge relating to translation methods, transformations, techniques, strategies, etc. Consequently, in case of the translator's decision-making they should rely more on intuition than their professional skills.

Semi-professionals are senior students undergoing specialized higher educational programs in foreign languages / literature / translation. They are expected to possess a medium to higher level of a foreign language competence and at least some professional translator's knowledge and skills.

Thus, semi-professionals take their decisions in a more conscious fashion proceeding from their mostly theoretical background. At the same time, their professional competence is not fully formed yet and many processes are not automatized, they lack standard ways of overcoming different types of problems referred to as ‘translation difficulties’: “As far as attitudinal factors are concerned, the semi-professionals’ ambivalent attitude toward paraphrasing and their fear of false friends can be interpreted as a lack of self-confidence” (Kussmaul, Tirkkonen-Condit 1995, p. 187). Nevertheless, semi-professional subjects are a valuable source of information in both introspective and retrospective experiments.

Finally, professionals are subjects who have already completed their training programs and have working experience in the field of translation of at least three years. Professionals have automatized some of their skills, which may result in a less conscious and sparser verbalizations. As a rule, they have developed a set of favourite professional devices, which they often resort to. Unlike non-professionals and semi-professionals, their actions are very function-oriented and recipient-oriented. According to some research, “one of the main differences found in verbalizations made by professionals and by non-professionals is that the more experience the subject has with translation, the more explicitly s/he verbalizes an awareness of the function of the target text and of the needs of the future reader, in other words, an awareness of the communicative situation of the translation” (Rambæk 2004, p. 10).

Similar regularities are noted by Kussmaul and Tirkkonen-Condit: “Professionals take a mainly ‘sense-oriented’ approach rather than the ‘form-oriented’ approach preferred by learners. The professional translators mainly, though not exclusively, check their production with regard to stylistic and text-type adequacy. This can be related to the observation that they have a larger number of variants at their disposal than do the learners” (1995, p. 187).

I. Rambæk formulates a number of differences in professionals’ and non-professionals’ verbalizations that “are reflected in the quality of the products produced during the experiment as well as in the think-aloud protocols” (2004, p. 11): the professionals in the experiment showed more text-awareness than students (in her experiment: translator students in the beginning of their studies); the professionals were more aware of the potential problems in the translation; the professionals used their world knowledge more actively in the process (ibid.).

Obviously, the division of subjects into the groups based on their ‘professional’ status as well as the relevance of these groups for different types of experiments and investigational tasks are rather relative.

Now that I’ve already described briefly the principles of the subjects’ classification as well as pros and contras of their different categories, let me add a few words in favour of my choices in regard to this particular experiment. I invited for collaboration 72 students of the Master’s level at the School of Foreign Languages at V. N. Karazin Kharkiv National University (Ukraine). All in all, the experiment took 3 years due to the small number of students undergoing the Master’s Program each year. Thus, all the subjects fall into the ‘semi-professionals’ category. As a Teacher of Translation Theory and Translation Practice of 25 years, I have a number of my own arguments in favour of this category:

- *psychological flexibility / readiness to cooperate*. For students, open to all kinds of new things because of their age and social status, the teacher’s request to help in conducting research – translating a text and commenting on their decisions, looks like a pretty natural thing. It is even perceived by them as part of their professional training or some kind of an educational game. The teacher’s ability to ensure a comfortable and encouraging atmosphere and to win the subjects’ trust is, however, very important. It was interesting to discover that my observations coincide with those made by one of the pioneers in translation retrospection, Daniel Gile, who wrote: “After a puzzled reaction as to what exactly they should write and why they should write it (a reaction which I encounter with every new translation class I teach in any language combination), students accepted the principle and complied with it. Direct comments received from them over the years, as well as indirect feedback through other instructors to whom they talked, suggest that they like it” (2004, p. 3);

*The opportunity to involve a relatively large number of participants*: The validity and success of any experiment depend directly on a number of its subjects. With semi-professionals, this problem can be solved pretty easily, though even in this situation it took me three years to amass the desired number of participants;

*The homogeneity of participants’ sample*. In dealing with students of the same year of training who are undergoing the same program, we can expect an approximately identical level of both linguistic (as to a foreign language acquisition) and professional (as to translation skills, strategies, methods,

etc.) competences. Also, the representatives of this category potentially share some other characteristics that may turn out to be relevant for the aim and tasks of the experiment. Here I mean that they belong to the same age group, often share similar interests and hobbies, and in general have comparable levels of cultural and intellectual development.

*Structure of the experiment:* By developing my own experiment, I followed Gile's methodology of *Integrated Problem and Decision Reporting* or *IPDR*, devised as early as 1979. It was initially elaborated as a didactic tool that allowed the teacher an opportunity to evaluate the students' progress, and the students to carry out translations in a more conscious way. Later on, the methodology was adapted for research needs: "In its didactic version, IPDR proceeds in three phases: the reporting phase, the data analysis phase, and the instructor's response phase. In a research version, the third phase can be replaced or complemented with different or follow-up phases, for instance with further questioning of students on specific problems, action, decisions or other phenomena" (ibid).

This methodology is also valuable as it allows the students to better understand the creative nature and mechanisms of the translator's nomination, to teach them how to solve the problem of dealing with non-equivalent vocabulary efficiently: "IPDR also materializes the idea that translation is far from automatic, and that it requires thinking and decision-making. Clearly, such intellectual processing takes place to some extent regardless of the reporting procedure, but the requirement to report it systematically not only encourages students to take it further, but also recalls and highlights its importance" (ibid).

Trying to adapt Gile's methodology for the purpose and conditions of my own experiment, I made some corrections to it. First, I tasked the subjects to report not all of the problems encountered by them but to concentrate on those connected with reproducing the control elements. My second correction concerned the time of submitting the subjects' reports. I intended to make it as close to the time of conducting translation as possible (as was initially stipulated by Gile's methodology), but because the experiment was conducted at subjects' homes and their reports were sent by e-mail it was not always possible (I simply could not provide for the rigid control of the experiment's conditions and had to allow the subjects certain flexibility time-wise). Due to these corrections, I prefer to call my experiment *Partial Delayed Report of Problems and their Solution* or *PDRPS*.

The experiment was held in three stages: (1) translating; (2) reporting; (3) discussing the results. Let me characterize all the stages briefly.

1. At the first stage, the subjects were tasked with translating Milligan's poem and sending their translations via e-mail to the experiment's supervisor. At this point, no specific requests concerning the text itself or the control units were formulated. I believe that concentrating the subjects' attention on the problem of nomination could compromise the validity of the experiment's results. On receiving a particular subject's translation, the supervisor immediately switched to stage 2.

2. At the second stage, the subjects received the following instruction letter: "Dear participant! Thank you for the translation. Now I ask for your help in conducting the experimental research. To this end, please try to substantiate in writing your decisions concerning the reproduction of the following units: (1) *Itchy Koo Land*; (2) *Ting-a-ling-a-ling*; (3) *Swank! Swank! Swank!*; (4) *Ying tong idle I Po*. You can report in any form you like, for instance, write in detail about the motivation of your decisions in every case, on restrictions you encountered, on methods and strategies you followed, on sources of information you referred to, etc. In general, try to make your report as comprehensive as possible. Thank you for cooperation!" I tried to compose the instruction letter in an easy and informal manner in order to win the subjects' confidence and to create a relaxed atmosphere. At the same time, the letter gives the participants a pretty obvious idea of what exactly is needed from them.

I should admit that not all the participants could successfully complete stage 2 of the experiment: only 25 out of 72 (35%) provided more or less full reports. Such a situation, once again, complies with Gile's observations: "Some students do not know what to report in spite of instructions received, and some ignore the reporting requirement. Fortunately, there are always enough students who do understand and do comply, so that the third stage can take place, and other students can see examples of successful reporting which they then use for guidance" (ibid).

For retrieving the necessary information from both translations and reports, I used the method of inference.

**Analysis of the data and the results of the experiment.** My analysis will go from one control unit to another. The first quasiword *Itchy Koo Land* is composed of three root morphemes. The reports reveal several

factors as to its interpretation and selection of a translation method. The fact that it has in its composition the regular word *Land* which, in addition, is located in a head position, pushed all the subjects to assumption that its meaning is connected with some territorial unit while two other morphemes *Itchy* and *Koo* are modifiers, describing this unit or simply giving its name. In addition, all three morphemes are spelled with a capital letter like in toponyms. Finally, the morpheme ‘land’ is included in a number of English country names, like *Iceland*, or *Finland*, or *Holland* etc. See, for instance, Report # 9<sup>1</sup>: “When I was translating this unit I had no idea about its possible [Ukrainian] equivalent. Translating each word separately yielded no result either. That’s why I decided to translate it like we usually translate country names – ‘країна Ітчіку’.” Report # 16: “From component *land* and the [poem’s general] meaning one can see that it’s the name of an imaginary country. First, I translated this component but then I decided to leave it in its initial form for a better perception. As to the first two words, *Itchy* is ‘сверблячка’ or ‘лоскіт’ and *Koo* is ‘ку’, their meanings have no particular importance. I think that in this verse any name can be used or invented like ‘країна Лоскоту’, or ‘Веселоців’, or ‘Жартів’.”

As a result of such interpretations, a number of transliterated or partially transliterated, partially calqued equivalents appeared. The use of transliteration, in particular, testifies to the participants’ knowledge of the specifics of translating toponyms and other types of proper names from English into Ukrainian. See, for instance, Report # 22: “We know that names of the countries are not translated”, or Report # 12: “*Itchy Koo Land* – is the name of a fairy country; since it doesn’t exist in reality we resorted to transcription – ‘Ітчікуланд’.”

Another reason for using transliteration is the subject’s inability to interpret the unit and to form its coherent mental representation. See, for instance, Report # 6: “While translating the name *Itchy Koo Land* I didn’t find an equivalent to any of its components, so I reproduced its phonetic form.”

I also registered some cases where the subjects aspired to interpret each component within a unit separately but then had problems trying to coordinate their meanings on a cognitive level. Speaking figuratively, separate pieces of a sense mosaic didn’t make a whole conceptual picture. See, for instance, Report # 5: “I transliterated this unit. If I translate separate components I get *Itchy* – ‘свербіж’, *Кoo* – like a cuckoo’s crying. So, it will be very hard to

---

<sup>1</sup> Original reports are in Ukrainian. Translation here is mine.

render the meanings of these words and then use them in a verse”. Report # 7: “I decided to leave the original name of a country because if I translated each component into Ukrainian, the feeling of something fairy would be lost.” Report # 23: “I didn’t know how to translate this name because if I translate these words separately, they do not conjugate; for example, *itchy* – is something that itches, but how can a land itch?”

Transliterated variants differ among themselves as well: ‘Ітчикулєнд’, ‘Ітчікулєнд’, ‘Ітчі Ку’, ‘Ічкулєнд’, ‘Іч-Ку-Лєнд’, ‘Іч Ку Лєнд’, ‘Ічкулєн’, ‘Ітчкулєн’. It would be logical to presuppose that Ukrainian transliterations of this quasiword would be identical to the form of the original unit, instead one can see a variety of spelling formats: together, separately or hyphenated. I can assume the influence of the Ukrainian orthographic rules which require spelling morphemes within a toponym together or with a hyphen. I also noticed some differences in selecting the letters for spelling Ukrainian equivalents which can be possibly explained by euphonic considerations that force each translator to adapt the newly coined units not only to the euphonic norms of a target language but also to one’s own (and often perceived intuitively) individual sound preferences. See, for instance, Report # 14: “While translating the name of an invented country I found it necessary to use the adaptive transliteration variant which is most typical for rendering foreign proper names. I translated it like ‘Ітчкулєнд; because, to my mind, this name variant is better for aural perception.”

In some of the reports, I can also trace the elements of from-component-to-component interpretation and contextual analysis which resulted in the creation of semi-calques (half-transliterations, half-loan translations). The employment of this method means that those components of a quasiword that coincided with real source words were translated, but those ones that didn’t have regular equivalents were transliterated. The real problem, as it appears, was to ‘inscribe’ these interpretations into the general context of the verse, which required some cognitive processing of the situation. Here, the subjects relied heavily on their associations. See, for instance, Report # 10: “I checked the meaning of ‘itchy’ in the dictionary, and it’s something like ‘той, що викликає свербіж’ [the one that itches]. It provokes an association – ‘той, що не всидить на одному місці’ [the one that can’t remain in one place]. Here comes the question: How to express it in a shorter form? As an answer, appeared the word ‘жвавий’ [active, agile]. ‘Koo’ associated with something childish and that’s how children appeared in the name of a country.” Report

# 15: “‘Itchy Koo Land’ is the land of originals, where kids are allowed to itch instead of washing. And I have another association with a faraway land: ‘Тмутаракань’ – a godforsaken place which is not very easy to reach. Everybody heard about it but not everybody knows where it is and how to get there.” Report # 8: “At first I remembered the Simpsons [cartoons] because of another cartoon that is mentioned there – ‘Чух і Сверблячка’ [Itchy and Scratchy], then I thought about what kids like and where they’d love to live, [and thus appeared] some short name – ‘Чудомісто’ [‘Wondercity’].”

By inference, I come to the conclusion that similar associative chains led to the formation of such equivalents as ‘Земля Ку, що Зудить’ (Koo Land that Itches) and ‘Країна Сверблячих Ку’ (The Land of Itchy Koo). Among other creative solutions are: ‘Чухраїна’ (formed by contamination of ‘чухатися’ (itch) and ‘країна’ (land)), ‘Бажандія’ (formed by combining the fragment of ‘бажання’ (longing) and combining form ‘-ландія’ (-land)) and ‘Діньдонія’ (formed from onomatopoeic word ‘дінь-дон’ – equivalent of English ‘ting-a-ling’). The use of such complicated word-formation models is seen as a creative act of the translator’s nomination complicated by restrictions connected with ambiguity of the original unit’s interpretation and complexity of a poetic context.

Quite a different strategy is observed in cases when the equivalents were coined by the subjects on the basis of regular Ukrainian words. The main disadvantage of such a strategy is the loss of a nonsensical form providing a special aesthetic-expressive effect in the source text which is lost in translation.

By choosing this strategy, the participants of the experiment, in their own words, were guided by the mental image formed in their minds by the first stanza of the verse that contains the analysed quasiword. Retrospective interviewing revealed certain complexity and even gestalt-like character of this mental image correlated simultaneously with a number of notions such as FAIRY TALE, DREAM, CHILDHOOD, LONGING, MAGIC, SORROW, etc. since the nomination process is based on one motivation mark, individual nominations coined by the subjects reflect which of these notions was finally zoomed in: ‘казка’ (fairy tale – “У казку я потрапити хотів”, “Якби я жив у казці”), ‘чарівна казка’ (magic fairy tale – “Мої думки у тій чарівній казці”), ‘країна казок’ (land of fairy tales – “Якби я жив у країні казок”), ‘країна мрій’ (land of dreams – “Хотілося б пожити у Країні Мрій”, “Якби ж я був в країні нездійснених мрій”), ‘дивна країна’ (wonder land – “На

жаль, я не народився у дивній країні”), ‘чудернацька країна’ (strange land – “У чудернацькій країні / Ходила я би скрізь”), ‘країна дитинства’ (land of childhood – “Мрію жити в країні Дитинства”), ‘Королівство Див’ (kingdom of wonders – “Якби ж потрапити до Королівства Див”), ‘країна бажань’ (land of wishes – “Я би хотіла бути у країні бажань”), ‘країна Жвавих Дітлахів’ (land of active kids – “В країну Жвавих Дітлахів / Я взяв би той дзвіночок”), ‘Чудодивокрай’ (magic land – “Якби пожити в Чудодивокраї”), ‘Чудомісто’ (wonder city – “Я хотів би жити у Чудомісті”).

If the associations of the informants who opted for semi-calques were motivated by the meanings of a quasiword’s separate components, the associations of the informants who opted for substitutions by regular Ukrainian words were motivated by the context – sometimes of the first stanza but sometimes of the verse in general. See, for instance, Report # 33: “As for *Itchy Koo Land*, word-for-word translation was impossible here, and when I read the verse till the end there appeared an association that this was some wonderful, carefree country where everybody is happy. That’s how it turned into ‘чудова країна’.” Report # 25: “*Itchy Koo Land* – ‘країна мрій’; I used this method of translation because this verse is oriented to the children’s audience and this variant will be more understandable and graphic for them.”

Now, I switch to the analysis of the second nonce formation – onomatopoeia *Ting-a-ling-a-ling*, which is likely to be an imitation of a bell sound due to the preceding contextual marker ‘;bell’ (*I’d tie a little bell on it / Ting-a-ling-a-ling!*) and the meaning of a root morpheme ‘ting’ (also, ‘tinkle’) which coincides with the regular English word. No wonder, that the majority of the subjects made similar interpretations which resulted in onomatopoeic equivalents adapted for the Ukrainian tradition of sound imitation: ‘дзинь-дзинь’, ‘тінь-тілі-лінь’, ‘бом-бом’, ‘тілі-тілі’, ‘тінь-ді-лінь-тінь-ді-лінь’, ‘дзинь-дзинь’, ‘тінь-ділінь-тінь-ділінь’, ‘дзинь-дзилинь’, ‘дилинь’, ‘тілінь-тілінь-тілінь’, ‘тілінь-ділінь-ділінь’, ‘дзинь-дзинь-дзилинь-цинь-ці’, ‘день-дзень’, ‘тінь-ті-лінь-тілінь’, ‘тін-ді-лінді’, ‘ділінь-ділінь-ділінь’, ‘дін-дон’, ‘дзінь-цок-дзінь-цок-дзінь-цок’, ‘тінь-ті-лінь’, ‘тин-лин-лин’. I believe that the variations in the spelling of the equivalents and their length were regulated by the rhyme and rhythm requirements. The creative aspect of the translator’s work is revealed in the specificity of each nominative act during which the subjects freely combined regular and ad hoc root morphemes proceeding from both stereotypical and their own ideas as to the bell sound but also taking into account functional and contextual constraints. See, for

instance, Report # 11: “Actually *Ting-a-ling-a-ling* is an imitation of a sound. In the first stanza, the author writes how he finds a string and ties a bell to it. One may conclude that in the last line he’s attempting to reproduce the sound of this bell. In Ukrainian, this sound can be rendered with the words like ‘дзинь’, ‘дзень’, ‘дін’, ‘ділін’, etc. I selected ‘Дін-ділін-ділін’ because it reminds me most of the English variant *Ting-a-ling-a-ling*.”

Some translations prove that in poetic discourse rhyme can become a decisive factor in favour of a certain equivalent, even if it’s not conventional (i.e., violates some particular linguistic or communicative norm). Thus, one of the translations offers the equivalent ‘чок-чок-чок’ which, in my opinion, can hardly be correlated with any of the potential Ukrainian designations of a bell ring. But a closer look at the context reveals that the subject coined it to rhyme with ‘дзвіночОк’ (little bell) with unconventional stress on the last syllable: “Я б прив’язав до неї дзвіночок / І він звучав би чок-чок-чок!”

My attention was drawn by the fact that the translators’ creative search was often directed by the factor of prospective target audience. Moreover, I observed here opposite positions. Some informants declare that onomatopoeia has a didactic effect on a child as a means of connecting reality, language and individuality. See, for instance, Report # 16: “Rendering the sounds of coins and a bell. This method is usually employed for teaching kids (e.g., “What animal says ‘moo’? – A cow.”) Unfortunately, I’ve never come across any designations for coins clanking, but I rendered the sound of a bell with ‘Дзін-дзі-лін’.” According to the opposite position, the presence of nonsensical formations in children’s literature in general, and onomatopoeias in particular, has a negative effect on the perception of a literary work by a child that can have problems with their interpreting. See, for instance, Report # 3: “I tried to avoid elements like *Ting-a-ling-a-ling*; *Swank! Swank! Swank!* *Ying tong idle I Po* and actually succeeded in it. Why avoid? Because, firstly, I’ve never liked in verse these stupid din-dons and suchlike. When you read such a verse to a child how can you explain to it what these creations mean? And the child is likely to ask this question.” It seems that the subject who wrote this comment is inclined to overgeneralize her own negative experience as to the lexical nonsense and nonsensical literature in general because – contrary to her opinion – such literature is believed to be of special popularity among children who perceive it differently from adults due to their psychological flexibility.

In some cases the subject’s inability to fulfil the rhyming requirements of the context led to substituting onomatopoeia for an onomatopoeic verb:

“Я б невеличкий дзвоник прив’язав / Та дзеленчав, та дзеленчав”;  
 “Мотузку і дзвінок на ній, / Нехай би він дзвенів”; “Маленьку я би стрічку  
 / На дзвоник почепив / Дзилінкати за смичку”; “Я б прив’язав до неї  
 дзвоник, / Нехай собі бриньчить”; “То я б дзвонив ним кожен день / І  
 зранку і уночі”; “На ній би мав я дзвіночок / Який дзвенів би без кінця”.  
 For the sake of meaning transference, transformation like this seems quite  
 appropriate, though it definitely impoverishes the translations’ expressiveness  
 because of the loss of an ad hoc form which, in addition, may be treated as  
 a trait of Milligan’s distinctive individual style. See, for instance, Report  
 # 19: “I translated *Ting-a-ling-a-ling* with a slight change of its meaning  
 because, in my opinion, my translation reproduces initial sense better. In  
 my variant *ting-a-ling-a-ling* is translated like “дзвонив тим дзвіночком  
 весь день у серцях” (rang that bell all day long in the hearts); it’s the last  
 line and translation fits the rhyme and also reflects the function of a bell.”

In still other cases, the nonce formation was reproduced following a  
 cognitive operation involving an image substitution during which a mental  
 representation of a bell was replaced by a mental representation of a related  
 object – song or singing, pleasant sound or movement, dance or dancing, etc.  
 In my opinion, this replacement (more characteristic of extravert translators)  
 refers not so much to the bell itself as to the imaginary land to which the  
 replaced objects belong quite naturally. Thus, the described mental operation  
 may be seen as part of the translator’s general strategy towards the naturalness  
 of a target text: “З дзвіночками на ниточці / Ходив, співав пісень”, “Я б  
 пісні співав чарівні”, “Із дзвоником гучним на тоненькій тканині / Яка  
 насолода! Яке піснопіння!”, “Дзвіночок гойдав би на ній, / А ще б пісні  
 співав”, “Аби мені там заспівати, / І цю радість прославляти”, “Довкола  
 бігати, співати й танцювати”, “Маленький дзвоник повісити на ній / Які  
 приємні звуки!”, “Я б міг дзвіночок взяти / Ходити з ним, гуляти”, “Я  
 б завжди гуляв / і ніколи б її не відпускав”, “І з кулькою на ниточці /  
 По вулицях ходити!”, “Із дзвоником на ниточці по вулицях ходити!”.

Some information about the cognitive transformations can be inferred  
 from the subjects’ reports. See, for instance, Report# 24: “First of all, I had  
 an association with childhood, I tried to imagine how I would put together  
 this verse in my mother tongue, what emotions and feelings I would like to  
 convey. I also imagined a child’s internal world, tried to see the world with  
 its eyes, imagine its dreams because a child’s world is always full of bright  
 colours and feelings, joy and hope for something better in this life.”

Now, let me switch to the analysis of the next control element – the second onomatopoeia *swank*, which is a difficult object of interpretation due to the two layers of meaning; first, it's an imitation of coins' clanking; second, it's a hint (promise) of the beautiful life one can get with their help. Not accidentally, 'swank' has two regular meanings in English: (1) to show off and (2) swagger. As far as I could infer from the proposed translations, both regular meanings were to some extent incorporated into the subjects' interpretation process. Another factor that complicated the interpretation of 'swank' was the absence of regular Ukrainian equivalent of an onomatopoeic character denoting the sound of coins. As a result, I got a variety of translation variants reflecting the subjects' personal preferences: “Я зніму їх в банку і усі розтрачу / Зв'язк – зв'язк – зм'язк”, “Я б витратив на солодоші до чаю, / Дзинь-дзилинь, дилинь”; “Я витратив би все уцент / Скрош! Скрош! Скрош!”; “Я б зняв її і витратив / І тільки дзинь, дзинь, дзинь”, “І мати мідяк / Дзяк! Дзв'язк! Дзв'язк!”, “Намалював би гроші, їх зберігав у банку / Дзінь-дзі-лінь!”, “Дзень! Дзень! Дзень! Ось так!», «Куплю цукерки й трьох котів / Дзинь-дзинь-дзинь – монета!». Like with the previous control element, some of the subjects opted for an onomatopoeic verb or noun, which was an easier choice because the context would allow one to use several possible equivalents that refer to the sound of any metal object and not necessarily a coin. See, for instance, Report # 21: “*Swank! Swank! Swank!* – щоб було чути їхній дзвін, – I don't know how to render the clanking of coins – that's why I wrote exactly this – ‘їхній дзвін’.”

As compared to the first two control elements, *Swank! Swank! Swank!* demonstrates a wider range of the translators' interpretations. Some of the participants focused on the 'swagger' component which was first actualized in their minds as a corresponding concept and then verbalized with a corresponding equivalent. See, for instance, Report # 5: “Taking into account that the word *swank* has a colloquial meaning of 'swagger' it seemed to me that a child in the verse was swaggering that it could spend all its money.” Report # 15: “*Swank! Swank! Swank!* – is swaggering to buy everything for the money. It's so child-like and spontaneous.” A number of words were used as equivalents only because their semantic structures contain semes correlated with the concept SWAGGER, for instance: “Я б взяв його і витратив увесь, / Гуляв би і гуляв”, “Ото б я шиковав, / напевно б шиковав!”, “Купив би я собі усе / Не пожалів ні центу”, “І витратив я б її на пустоці: / То справжня розкіш для дитини”, “Я б взяв їх всі та витрачав / І цим би хизувався”; “На пенні будь-що там купиуй – / Шикуй!

Шикуй! Шикуй!” “Розтринькав їх би й показав, / Як жити треба всім!” “То взяв би я готівки / Й розтринькав до копійки!” “Та витратив би їх усі / Такий ось я хвалько” “Витратив його б я так, / Як найсправніший гультіпака” “І пенні у кармані мати, / Вволю шикувати” “Всі гроші б з банку я забрав! / Наліво і направо б їх роздав” “Якби грошей багато мав / Мабуть, усі б я їх програв”.

Another creative solution was to express the idea of showing off through an onomatopoeic form that would unite two layers of meaning – coins clanking and swagger: “То відразу ж на нього купила я б щось, ось так: / Пшик-пшик-пшик” “Пенні із банку / Я б витягнув та витратив на себе / Шик/Шик/Шик!” “Я виписав би чек та витратив його / Шик! Шик! Шик! Шик!”.

Some subjects expressed the ambiguity of their interpretations by giving preference to abstract but positively-charged forms. See, for instance, Report # 14 in which the informant tries to explain his motivation in detail: “To my mind, the author of the verse used these exclamations to share those light emotions that may emerge as a result of spending money; to show all the love to dreams. My translation of this line was “Ось так! Ось так! Ось так!”. The explanations are in the following example. When the parents ask their baby to say or to show how much it loves them, this little boy or little girl hugs them tightly and says “Like this!” (Ось так!). I mean, when you feel some pretty strong emotional explosion and desire to express it in words you can’t always find necessary words and resort to such expressions – exclamations.”

Verbalization of an emotionally coloured mental representation took place with the help of different regular and ad hoc formations. Among them, I would like to point out exclamations: “Яке щастя! / Гей! Гей! Гей!” “Та витратив їх всі / Га! Га! Га!” “І мав би пені в банку (без жодного нуля) / Тра-ля-ля-ля-ля-ля-тра-ля-ля-ля-ля-ля!” “Я би дістав тоді і витратив усі / Ха-ха-ха-ха!” “З банку б я дістав грошей, / Яке щастя! Гей! Гей! Гей!” “Зняв би усі гроші з рахунку / Ку-ку-ку-ку-ку-ку-ку-ку-ку” “Мала б я купу грошей / Еге-гей-еге-гей!” “Й розтринькав їх геть чисто / Ги-ги-ги ги-ги-ги-ги”.

And, finally, the last control element *Ying tong idle I Po* that was, probably, the hardest object of interpretation due to complete absence of structural (morphemic) and / or semantic transparency as well as reliable contextual markers that would help identify its reference. Contrary to my predictions, there was only one case of transliteration that is a popular method of resolving this

type of translation difficulties: “Якби я був у Ічколенді, / Куди дорослим дорога зась / Та де діти живуть вічно / Юнг-тонг-айдл-ай-по.” One more equivalent can be regarded partially transliterated, partially calqued. See Report # 23: “*I Ying Tong Idle I Po* – “інь тун просто я по”. I never came across this combination of words and I decided to translate it simply without any changes.” However, some subjects attempted to create an analogous nonsensical unit by means of phonetic substitution. As a result, their equivalents rather play the role of ‘rhyme-fillers’ than express any coherent meaning. They bear no resemblance to the source unit either: “Трум-туру-ру-пу-пу”, “Тінь-ділінь-тінь-ділінь”, “Хей-по, хей-по, хей-по”, “Тра-ля-ля, тра-ля-ля”, “Дін дон трум пум пум”, “Пуф-рі-ці-ця”, “Тра-ля-ля, смакуй життя!”, “Ю-ху, є діти і є я”, “Тік-ток, тік-ток”, “Парам-пам-тіл -тіль!”, “Ля ля ля / який же я мрійник”, “Де дорослих не побачиш, / Мон тон лаки пиш”.

The rest of the proposed variants fall under three strategies.

Within the first strategy, in an attempt to ascribe meaning to this control element, the participants referred to the dictionaries since several of its components coincided with regular English words: *idle* – ‘lazy’, *I* – personal pronoun, *po* – an informal word for a chamber pot. Naturally, they encountered serious problems trying to juxtapose their contradictory mental images. See, for instance, Report # 19: “I can explain my translation by the following consideration. I couldn’t find an adequate equivalent and decided that the author didn’t put into them any special meaning and used them for a better perception. In translation, I stick to the word *idle* that means (1) ‘lazy’, (2) ‘free’, ‘unoccupied’ and (3) ‘vain’, ‘useless’. That’s why, we feel freedom from any occupations which is rendered with the help of the word ‘дитинство’ (childhood).” Report # 2: “*Ying tong Po* was translated like ‘Не зазнавав би суму я доволі’. I used the dictionary to translate separately the words: *idle* – ‘be lazy’, ‘dawdle’. To do nothing is any child’s dream or any person’s dream, everybody only wants to have fun. The rest of the components were translated intuitively according to the general sense of the verse.” Report # 15 offers quite an unexpected associative chain: “*Ying tong idle I Po* – maybe [a child is] so lazy that [only] uses a chamber pot. Here comes the translation – ‘діти роблять все, що хочуть / веселе життя – усі регочуть’.”

Within the second strategy, in an attempt to create an adequate equivalent, the subjects often involved background information they already possessed or gathered specially for this occasion. Collecting background information

is usually associated with the incubation stage of a creative process, in the case of the experiment, for instance, the subjects wanted to learn more about Milligan and his works, as in Report # 13: “*Ying tong idle I Po* – I found out that this is the name of a nonsensical song, that’s why I decided to translate it according to my own feelings.” Report # 16: “Speaking honestly, I can’t even imagine what this combination of words can mean. Even the text of the song *The Ying Tong Song* (written by Spike Milligan) didn’t inspire any thought.” As one can see from these comments, the fact that the author used the same nonsense in his other works is not enough for its interpretation. One participant even turned to her knowledge of the Chinese language, endeavouring to decipher this rebus and propose a variant that goes hand in hand with the general tonality of the verse. See Report # 10: “*Ying tong idle I Po*. This nonsense is the hardest. In Chinese, *ying tong* means ‘hard coin’, and *idle* is ‘lazy’ in English. That is, ‘lazy as to the hard coin’ or ‘carefree’. The combination of vowels ‘y’ and ‘i’ seemed quite atypical for English, thus, these odd Chinese associations (this combination [of sounds] is very characteristic of them). Components *I* and *Po* seem to be lost.”

Within the third strategy, the subjects relied not on the meanings of the unit’s separate components and not on the mental image formed as a chain of associations but rather on the general impression from the verse as a whole. This course of action seems quite natural, taking into account that this control element forms the last line of the poem and may be considered its peculiar culmination. See, for instance, Report # 11: “*Ying tong idle I Po*, most likely, it’s some sort of sound imitation, at least *Ying tong*. But I think it’s inappropriate to translate the last line [of the verse] like certain sounds. That’s why, this phrase’s translation depended on the context. In the last stanza, the author says that there are no adults at all in the Kingdom of Wonders, and everybody remains a kid. In real life, this is not possible, but in the Kingdom of Wonders, everything happens just like this. Since the Kingdom of Wonders is the fruit of imagination, one can get there in a dream or in a sleep. Taking into account that it was necessary to preserve the rhyme and to follow the verse’s rhythm, I chose the variant ‘y cнi’.”

In Report # 14, the translator described the consequence of actions that led her to the final variant: “I translated *Ying tong idle I Po* like ‘Та де бешкетує нестримане Я!’ This line was rather interesting for me, I can even admit it was pretty difficult. While translating it, I tried to find something in the dictionary, but my search gave no result. That’s why I decided to do the

following: to translate all the verse and then to select the ending that would fit and wouldn't change its general meaning.”

Some of the translations demonstrate what I call the element of the translator's self-identification. It is embodied in the use of the personal pronoun 'я' and is probably caused by the component *I* within the nonsense. It's interesting how the self-identification marker determines the selection of other words for the line that correlate with the image of a wonderland: “Там інь і ян, тонь і я, вічність і Батьківщина”, “Юкі-токі я і Товстий”, “А люди живуть у мирі / Я там би жив і жив”; “А діти б жили там навечно / Ото б я став нарешті вільним”, “Та де бешкетує нестримане Я!”, “Я без батьків там заживу / Багато друзів я знайду”, “Я був би вільний – це мій хеппі-енд!”, “Перетворив би я життя на забавку / Якби не був у цьому я обмежений!”, “Де батьків зовсім нема, / Тоді б звучала пісенька моя!”.

Most of the subjects avoided nomination for this control element, thus confirming a clear regularity between the translator's ability to ascribe a concrete meaning to the non-equivalent unit and to form it coherent mental representation, on the one hand, and to coin a new nomination as its target equivalent, on the other. As a result, nomination is forsaken in favour of a descriptive translation method that, in our case, represents the translators' emotions rather than considerations. The variety of linguistic forms serves as proof of the ambiguity of the translator's interpretation: “Життя тоді стане яскраве й легке”, “Гуляти, бігати, стрибати / Без перепонів можна тут”, “А молодші тут довічно / Бешкетують, пустуни”, “Немає там дорослих / Проблем, образ та метушні”, “Де дорослих не буває / Діти весело стрибають / Оце був би світ!”, “Моя країна, в думках живе твоя краса!”, “Де дорослих ніколи не було і горя загуло!”, “Жити в radoшах сповна!”, “Дитинство було б вічним / Веселим і незвичним”, “Їх нічого не хвилює / Не бентежить до віку”, “Де є тільки діти / Де щастя, веселка та квіти!”, “Там всі навек лишаются дітьми! / Хоча б у сні приходити туди...”, “А світом правили б тільки діти, / Веселощів хватило б на всіх”, “...а лиш дзвінкий дитячий сміх / буз суму, зрад та помсти”, “Та дитинство нескінченне / Без образ і без турбот”, “Діти там живуть без правил: / Танцюють, грають, посміхаються”, “Де дітьми можна там навіки бути, / Де горе и образи легко так забути”, “та де діти будуть жити вічно / чорт забирай!”, “Там, де діти роблять все, що хочуть / Де веселе життя. Усі регочуть», «Там місця б не було батькам / Стояв би галас тут і там!», «Літати вчаться у птахів / Назавжди й лиш сьогодні!». This method of

problem-solving does not contradict the idea of the translator's creativity and, in addition, denies a popular statement about beginner translators' excessive fondness for literal reproduction. Consequently, my observations are contrary to those by Kussmaul and Tirkkonen-Condit who wrote in regard to semi-professionals: "Furthermore, the subjects often did not recognize that paraphrasing was a valuable technique of translating in cases where word-to-word correspondences were impossible. Although they used paraphrasing in the comprehension phase where it led to a correct understanding of the source text, they nevertheless did not accept it as a proper translation method for the reverbalization phase" (1995, p. 185–186). This "ambivalent attitude toward paraphrasing", in the authors' opinion, "can be interpreted as a lack of self-confidence" (ibid., p. 186). In my opinion, situational and linguistic factors have a stronger impact on the subjects' behaviour and decision-making as compared to attitudinal ones, in particular, when the nominative way of rendering non-equivalent nonsensical formations is determined by them to be impossible or inappropriate.

**Conclusions.** The translator's nominative activity is the way to let the target audience share the experience that has already been verbalized by the source community. The operative basis for the translator's nomination is provided by his / her mental lexicon functioning in a bilingual mode, according to which translation process presupposes parallel scanning of source and target languages aimed at finding linguistic means corresponding to the mental representation of an original element (word, expression, text – whatever falls under the broad notion of a 'translation unit'). When the scanning reveals the absence of a necessary equivalent (i.e., translation lacuna), a nomination mechanism may be launched as a means of solving the current problem. Nomination in translation is of a probabilistic character and depends on the aggregate of a number of factors (linguistic, situational, attitudinal, etc.). Unlike nomination in the source language, nomination in translation is partial (i.e., lacking some stages connected with the cognitive processing of information and the channels through which it is received) and mediated (i.e., propelled not by the nominator's immediate perception but by the sign created in the source language as a result of conceptualization and categorization within its worldview).

The retrospective experiment aimed at investigating the translator's nomination involved 78 semi-professional subjects and was based on the necessity of reproducing 4 control elements of nonsensical character

in verse by Spike Milligan. The experiment revealed regularity between the translator's ability to ascribe a meaning to the unit absent in his / her mental lexicon and to form its mental representation, on the one hand, and the nomination process, on the other. Respectively, the subject's inability to fulfil this task pushed him / her towards a non-nominative (descriptive) solution to the problem. Thus, identifying the control element *Itchy Koo Land* as a toponym determined a high level of transliteration as a most natural (prescribed) method of its rendering (66,7%); ascribing onomatopoeic meaning to the control element *Ting-a-ling-a-ling* determined a high level of ad hoc sound-imitating equivalents (including onomatopoeic verbs) among its Ukrainian equivalents (76,9%); the two-layer meaning of the control element *Swank! Swank! Swank* forced the subjects to resort to coining equivalents proceeding from one of two possible motivation identifiers – 58,9% for 'swagger' and 38,5% – for imitation of coins clanking; the ambiguous semantic identification of the control unit *Ying tong iddle I Po* forced the subjects to resort to descriptive transformations reflecting the general emotive background of the poem (89,7%).

Strategy-wise, the semi-professional subjects demonstrated in the course of the experiment their ability to act heuristically and combine sense-oriented and form-oriented approaches. Depending upon the results of their mental processing of the control elements they selected within one text opposite strategies – aimed at coining ad hoc equivalents (translator's nomination); employing regular target elements for filling interlinguistic lacunae (with simultaneous expansion of their meaning and function) or providing descriptive translation. The strategy was chosen on the basis of a complex assessment of both linguistic and extra-linguistic (situational) context.

Finally, the experiment completely confirmed its didactic significance as a powerful symbol of the educational process. On the one hand, it gave an interesting opportunity to the semi-professional students to reveal their creative potential and to experience the complexity of resolving translation difficulties. On the other hand, the reflective character of the experiment's tasks allowed its subjects to demonstrate their theoretical knowledge concerning such questions as translation methods, transformations and strategies, semantic and contextual interpretation, etc.

## References

- Aitchison, J. (1987). *Word in the Mind. An Introduction to the Mental Lexicon*. New York: Basil Blackwell Inc.
- Estivalet, G. L. (2016). *Mental Lexicon Architecture and Morphological Processing of French Verbs*. [Unpublished PhD dissertation]. Université de Lyon.
- Gile, D. (2004). Integrated Problem and Decision Reporting as a Translator Training Tool. *The Journal of Specialised Translation*, 2, 2–20.
- Grzega, J., Schoner, M. (2007). *English and General Historical Lexicology. Materials for Onomasiology Seminars*. Eichstatt-Ingolstadt: Katholische Universitat.
- Kussmaul, P., Tirkkonen-Condit, S. (1995). Think-Aloud Protocol Analysis in Translation Studies, *Translation Studies TTR: Traduction, Terminologie, Redaction*, 8(1), 177–199.
- Rambaek, I. (2004). Translation Strategies Expressed in Retrospective and Concurrent Verbal Reports. *Romansk Forum*, 19, 7–19.
- Rebrii, O. V. (2014). *Teoriia perekladatskoi tvorchosti u movnomu, tekstualnomu ta diialnisnomu vymirakh* [Theory of translation creativity in linguistic, textual and activity dimensions] [Unpublished PhD dissertation]. Taras Shevchenko National University of Kyiv.
- Sripada, P. N. (2008). Mental lexicon. *Journal of the Indian Academy of Applied Psychology*, 34(1), 181–186.
- Voronina, K. V. (2012). *Strukturno-semantychni ta funktsionalni osoblyvosti leksychnoho nonsensu v anhlo-movnomu poetychnomu dyskursi* [Structural, semantic and functional features of lexical nonsense in the English-language poetic discourse] [Unpublished PhD dissertation]. V.N. Karazin Kharkiv National University.

# CHAPTER 6

## GRAMMATICAL AND STYLISTIC TRANSLATION PROBLEMS IN UKRAINIAN-ENGLISH CONTRASTIVE COURSES

Alla Martyniuk

### **Abstract**

This study reports the results of a structural-semantic, stylistic and cognitive analysis of Ukrainian-English translations of Taras Shevchenko's poetry with the focus on the means of expressing subjective attitude and reproducing uncontrolled processes. The results prove the research hypothesis that the analysed grammatical phenomena – morphological vs. syntactic ways of expressing subjective attitude and impersonal vs. personal constructions – reflect two models of human interaction with the outer world: emotional-evaluative/ probabilistic vs. rational/causal. In the English worldview model, the subject perceives and describes the outer world as a detached observer who identifies/ categorizes entities, gives them appropriate evaluations and rationally acts upon these entities. The world is imagined as existing within a cause-and-effect framework and therefore as controllable and predictable. In the Ukrainian worldview, the subject perceives and describes the world as an interactor, who combines the identification/categorization of entities with their emotional evaluation and acts upon these entities, constantly feeling their interactive impact. The world is imagined as existing in a variable-probabilistic rather than a causal-causative framework, and is therefore seen as far from predictable and controllable. These models are embodied in the specific conceptual structures of representatives of Ukrainian-speaking and English-speaking cultures which materialise in culture-specific grammatical constructions, thus creating a translation problem.

**Key words:** conceptual structure, culture, grammatical structure, translation.

### **1. Introduction**

I recall how during a scientific discussion a colleague voiced an opinion that translation is primarily concerned with reproduction of meaning, not grammar, and therefore grammatical difficulties are not as attractive an object of translation analysis as lexical ones. I believe that the interpretation of this statement depends on how we conceive language. If we understand language in the structuralist dimension as a set of conventional lexical units that we must learn to arrange in syntagmatic chains according to strict grammatical rules (Sausure, 1995/1916), we can agree with the secondary role of grammar. However, if we accept the functional-cognitive interpretation of language as the embodiment of our sensory-motor experience, which organises the language continuum where the difference between grammatical and lexical structures is only in the level of abstraction (Langacker, 2017) and which can be universal as well as culture-specific (Lakoff & Johnson, 2003/1980), we arrive at a new idea. We begin to realise that grammar is no less if not more

important for translation analysis that lexis, since it is the grammatical structure that constitutes the backbone of the nation's linguistic and cultural worldview, which Wilhelm Humboldt called *Weltanschauung* (Humboldt, 1836).

In this article, I will focus on two features of the Ukrainian language – suffixes of subjective attitude and impersonal constructions. Both phenomena lie at the intersection of grammar and stylistics. More precisely, they are grammatical phenomena of the morphological and syntactic levels, respectively, which not only have a significant stylistic potential, but also embody specific features of the Ukrainian-speaking culture that cause significant difficulties for their translation into English. Therefore, their linguacultural specificity should be considered in the courses “Contrastive grammar of the English and Ukrainian languages” and “Contrastive stylistics of the English and Ukrainian languages”.

Moreover, I hypothesise that these grammatical phenomena reflect the emotional-evaluative/probabilistic model of human interaction with the surrounding world, imprinted in the conceptual structures of representatives of Ukrainian-speaking culture, which contrasts with the rational/causal model, embodied by the culture-specific conceptual structures of Anglo-Saxons.

The purpose of the paper is to integrate the tools of structural-semantic and cognitive methodologies in order to reveal the linguacultural specificity of Ukrainian suffixes of subjective attitude and impersonal constructions, which affects their translation into English.

For the translation analysis, I have chosen English translations of Taras Shevchenko's poetry (Taras Shevchenko, n.d.). Having absorbed folklore traditions, it formed the Ukrainian literary language. It is saturated with words containing suffixes of subjective attitude, which actually gives this poetry that incomparable musicality, which, as Marietta Shaginyan wrote, “has no equal in the world <...>, is nowhere and never artificial and acts like nature itself” (Shahynian, 1941, p. 38). On the other hand, Shevchenko's poetry also abounds in impersonal constructions that reflect the defencelessness of an individual in front of the unpredictable higher forces, which is intensified by the Ukrainians' awareness of the tragedy of their enslaved state under the oppression of Muscovy.

The material includes 100 instantiations of subjective-attitude suffixes and 100 instantiations of impersonal constructions found in Shevchenko's poetry and their translations into English performed by Vera Rich, John Weir, Lilian Voynich, Constantine Henry Andrusyshen and Watson Kirkconnell.

The novelty of the paper comes from the integration of the assumptions and tools of philosophy, anthropology and sociology to interpret the results of the empirical structural-semantic and cognitive translation analysis, and establish culture-specific conceptual structures that underpin language structures and license their functioning.

## **2. Linguacultural specificity of Ukrainian and English grammatical structures**

### ***2.1. Culture as a worldview embodied in grammatical structure***

The concept of culture has so many interpretations that it seems relevant to turn to the origins and adhere to the opinion of Edward Tylor (1871), the founder of cultural anthropology, who conceives culture as a complex social activity that includes all possible technological, moral/spiritual, and artistic manifestations of self-knowledge and self-expression of a person as a social being. These manifestations embrace institutions and norms; competences (knowledge, skills, abilities); beliefs; art; morality, law; customs and habits of individuals formed within the framework of a certain social group.

Central to cultural anthropology is the division of the world cultures into “cultures of guilt”, where the main regulator of social behaviour is the individual’s internal awareness of responsibility to oneself, God or the law as well as of the inevitability of punishment, and “cultures of shame”, where the main behavioural motive is avoiding public condemnation (Hesselgrave, 2002). This classification has gained popularity since the 1940s after the publication of Ruth Benedict’s “The chrysanthemum and the sword: Patterns of Japanese culture” where American culture is characterized as a “culture of guilt” and Japanese culture – as a “culture of shame” (Benedict, 1946).

Projecting this model onto Ukrainian culture, Myroslav Popovych suggests that “the Ukrainian peasantry in the 18th century gravitated towards family-clan corporatism with a “culture of shame”, although it dreamed of the Cossacks’ social status, while the Cossacks formed their “culture of guilt” and the concept of their own, personal, individual honour and inner freedom” (Popovych, 1984, p. 37).

In sociology, one of the most influential concepts is Hert Hofstede's cultural dimensions theory (Hofstede, 1983, 1991) that proposes six indices along which cultural values should be analysed: power distance between the population and the government, individualism vs. collectivism, uncertainty avoidance, masculinity vs. femininity, long-term orientation vs. short-term orientation, and indulgence vs. restraint.

The indices that are the most relevant for this study include individualism vs. collectivism, uncertainty avoidance, and masculinity vs. femininity. The individualism vs. collectivism index determines the degree of "separation" permissible in a culture for an individual: whether members of the culture conceive themselves in terms of "I" or "we". The uncertainty avoidance index takes into account "a society's tolerance for ambiguity": how strongly members of a culture are threatened by unexpected, unknown, or uncontrollable situations. The masculinity vs. femininity index embraces a number of value characteristics in various areas. In the social sphere, cultures with a high masculinity index display orientation to individual interests, priority of material values, and "life for the sake of work", while cultures with a high femininity index opt for relationships, quality of life, and "work for the sake of life". In the economic and political spheres, masculinity cultures prioritise economic growth and the resolution of conflicts by force, whereas femininity cultures focus on environmental protection, and the resolution of conflicts through negotiations. In the religious sphere, masculinity cultures place a major emphasis on the role of religion, and impose a taboo on female-gender clergy while femininity cultures display a weakening of the role of religion, and gender parity in the profession of clergy. In the field of employment, masculinity cultures favour the strict differentiation of gender roles, the predominance of men in management positions, and the desire for high pay at the expense of rest while femininity cultures tend to smooth the gender role differentiation, to shorten the working day, and to have a significant percentage of women in power. In family relationships, masculinity cultures rely on the 'traditional family' model, follow the "girls cry, but boys never do" stereotype, and perceive failure as a disaster, while femininity cultures prefer the 'flexible family' model, the "both boys and girls cry; never fight" stereotype, and regard failure as a minor event (Hofstede, 2001).

If we draw parallels between anthropological and sociological classifications, it is not difficult to notice that "cultures of shame" prioritise "feminine" tendencies while "cultures of guilt" go for "masculine" ones.

Hofstede's model is so popular that there is even a Google site called "Hofstede Insights", which calculates the six indices values in percentages for different countries. In particular, for the USA, Great Britain and Ukraine, the indices of individualism are 91%, 89% and 25%, respectively; uncertainty avoidance – 46%, 35% and 95%; and masculinity – 62%, 66% and 27% (Hofstede insights, n. a.).

These indices characterise American and British societies as individualistic; feeling more or less comfortable in uncontrolled situations (although the level of danger awareness in American society has increased after the 9/11 events); motivated, primarily, by the desire to achieve success, "to be the best at any cost."

These same indices qualify Ukrainian society as collectivist (while the British or the Americans describe joint actions with the expression *My friends and I*, the Ukrainians use the expression *my z druziamy* [we with friends]). Also, the Ukrainians are all too well aware of the danger of uncontrollable situations, fear the unpredictable, and are motivated by the desire to get satisfaction from work, and "to be in harmony with oneself".

I will try to reduce all these different, at first glance, indices to the key underpinning factor, which is the psychophysiological basis of social action/activity (both cognitive, instrumental, and speech/ communicative) according to the degree of rationality vs. emotionality. To solve the task, I will turn to the teaching of Max Weber (1968/1921), who was one of the first to create a classification of social actions according to the level of rationality. He distinguished:

1) *holistically rational action*, the subject of which is oriented to the valued ultimate goal (the criterion of rationality is success as a goal) as well as to the means chosen to achieve the goal and the side effects and consequences, and rationally weigh their balance;

2) *affectual-rational action*, the subject of which is oriented primarily to the action, and acts in accordance with their own beliefs about dignity, honour, beauty, religious prescriptions, the priority of a certain "cause", not fully considering the balance between the ultimate goal and the means and possible consequences of the action;

3) *affectual or irrational action*, the subject of which acts under the influence of affects and feelings and, like the subject of the affectual-rational

action, is oriented towards the actual action, and does not take into account possible costs and consequences;

4) *traditional action*, the subject of which acts under the influence of habit or tradition.

Traditional and affectual actions are at two opposite poles of the social action continuum, because all of us, regardless of culture, act both traditionally/ automatically, when we rely on our skills and abilities, and affectively, when we react to an event that causes an emotional upheaval. Examples of traditional actions include embroidering a shirt or gardening, while affectual actions instantiate in the emotional reactions caused by the 9/11 terrorist attacks in the United States or the bombing of the Ukrainian city of Mariupol by Russian invaders. Based on the characteristics given to cultures by anthropological and sociological research it seems relevant to assume that representatives of one or another culture tend to opt for holistically rational or affectual-rational actions.

Having analysed the results of these studies, I have come to the conclusion that representatives of the individualistic masculine English-speaking “culture of guilt” with their orientation to success as the ultimate goal and confidence in the controllability of the future events are more inclined to holistically rational social action. At the same time, representatives of the collectivist feminine Ukrainian-speaking culture, which integrates ideas of guilt and shame, focuses on internal harmony, feels the impossibility of predicting, and controlling future events, are prone to affectual-rational social action.

It is clear that an individual always acts within the framework of a certain model of the world, and this model largely determines the nature of their social action. I would venture to predict that an individual opting for holistically rational social action acts within Isaac Newton’s cause-and-effect model of the world, while an individual going for an affectual-rational action acts within Albert Einstein’s probabilistic model of the world.

The cause-effect model of the world rests on the laws of classical mechanics where causal determinism is seen as the main type of relationship between the elements of a system. Scientific objectivity presupposes the elimination of anything that can be related to the personality of the subject of cognition – intuition, introspection, imagination, emotions, desires, memory, motives, axiological guidelines, etc. – in order to get rid of subjectivity.

These assumptions create an axiological contrast between the rational as such that leads to the absolute objective truth, and the irrational, as such that is governed by emotions and consequently is doomed to subjectivity, and therefore a false understanding of the studied phenomena.

The probabilistic model of the world stands on the laws of quantum physics, which provides for the synthesis of causal determinism and probability, and recognises the cognitive functions of emotions, as well as the impossibility of eliminating subjectivity from cognition. Moreover, it accepts the dependence of the process and result of cognition on the motives, values and goals of the subject as a representative of a certain historically formed society and culture.

Further, I will try to reveal how these worldviews correlate with the grammatical structures of the English and Ukrainian languages, in particular, with the structures expressing subjective assessment of objects of reality and the structures embodying predictability/ causality or unpredictability/ probability of the subject's interaction with the surrounding world.

## ***2.2. Affectivity vs. rationality embodied in the grammatical structure of the Ukrainian and English languages***

Within the framework of the rational worldview, the categorisation of reality and its assessment are conceived as two different mental operations. Accordingly, in both contrasted languages, as well as in the vast majority of the world's languages, there are separate means for naming categorised objects (or referents) and their assessment. Nouns name referents, verbs denote actions performed by referents or upon referents, adjectives, adverbs and numerals designate different characteristics of referents, and their actions. Assessment of the categorised objects of reality is executed, primarily, by those adjectives and adverbs that have explicit evaluative meaning (*nice – harnyi, nicely – harno*), or, secondarily, by any adjectives and adverbs that have the implicit evaluative potential to be realised in a given context. The less explicit evaluation is, the more a language unit depends on the context, which can even change its positive value into a negative one and vice versa. For example, the adverb *badly – pohano* expresses a negative evaluation in any context, while the adjective *wooden – dereviany* can do it only in specific contexts, where it is used, to describe, for instance, the advantages

(positive evaluation) or, on the contrary, weak points (negative evaluation) of wood as a building material.

Rational evaluation is expressed by syntactic constructions. One option is an [adjective + noun] construction, where the noun names the referent and the adjective gives it a positive or negative evaluation on a certain basis. For example, *smachne morozyvo* – *delicious ice-cream*, *hanebna povedinka* – *disgusting behaviour*, etc. Another option is a [verb + adverb] construction, where the verb names an action, and the adverb denotes a certain feature of this action and, at the same time, gives this action an evaluation in terms of “good” or “bad”; e.g., *to speak clearly* – *hovoryty chitko*, *to act wrongly* – *diiaty pomylkovo*.

Within the framework of the affectual-evaluative worldview, the categorisation of reality is intertwined with its emotional assessment and is implemented by such lexical-grammatical morphemes as suffixes of subjective attitude. Added to the simple stems of words, suffixes of subjective attitude allow one to combine the naming of categorised objects (referents, their actions/actions performed on them, their qualities, or qualities of actions) with their positive or negative evaluation and, in addition, to express a certain emotional attitude of the speaker towards what is signified. For example, the nouns *matusenka* and *diduhan* not only name the referents, like their simple-stems, the stylistically neutral synonyms *maty* (mother) and *did* (old man), but also express an emotional and evaluative attitude towards these referents, most probably, positive/ tenderness and negative/contempt, respectively. The adjective *malesenkyi* does not only signify the small size of the referent, like its simple-stem stylistically neutral synonym *malyi* (small), but also embodies a certain emotional attitude towards the referent, most probably, affection/tenderness. The adverbs *tykhenko/tykhesenko* not only name a certain characteristic of an action, like their simple-stem stylistically neutral synonym *tykho* (quietly), but also convey a certain emotional and evaluative attitude to the event within which this action takes place, probably, pacification/ affection. The pronoun *otakisinkyi* not only qualifies the referent as *takyi* (such), but also renders a certain positive emotion associated with the referent, probably, admiration/awe. The numeral *dvoiechko* not only names the number of referents, like *dvoie* (two), but also reproduces a certain emotional and evaluative attitude of the speaker towards these referents, probably, affection/tenderness. Finally, the verbs *spaty* (to sleep) and *spatonky* denote the same action, but convey different attitudes of the speaker towards

the situation involving this action, probably, neutrality/emotional detachment vs. tenderness, respectively. I deliberately repeat the word “probably”, since it is next to impossible to define what emotion is rendered by a derivative with a suffix of subjective attitude, or even to decide whether it is positive or negative without considering the exact context in which the derivative is used, as it will be shown in the examples below.

The inventory of the subjective-attitude suffixes in the English and Ukrainian languages differs significantly, as does the predominantly rational and predominantly affectual-evaluative worldview of representatives of English-speaking and Ukrainian-speaking cultures.

In Ukrainian, suffixes of subjective attitude express connotations of diminution or augmentation, though these meaning components are quite often neutralised in context.

Ukrainian noun-forming diminutive suffixes are quite numerous (about 52–54 (Cytenko, 2009; Prystai & Prystai, 2017)), which is partly explained by the synthetic nature of the Ukrainian language, like most Slavic languages. Diminutive derivatives can be formed from almost any Ukrainian noun. The suffixes -ok, -yk, -ychok, -k(o), -ochok, -echok, -echk(o), -onk(o), -ychenk(o), -ets, -us, -un(o) form masculine gender nouns (e.g., *vizok, kovalyk, nozhychok, soloveiko, dubochok, puchechok, batechko, sokolonko, konychenko, kaminets, kotus, bratun, tatuno*); the suffixes -k(a), -ochk(a), -echk(a), -ynk(a), -ynochk(a), -yts(ia), -ychk(a), -onka, -enk(a), -us(ia), -un(ia) create feminine gender nouns (e.g., *khatka, sanitarochka, richechka, khatynka, khustynochka, vodytsia, travychka, holivonka, dolenka, matusia, babunia*); the suffixes -k(o), -ch(a), -chk(o), -enk(o), -en(ya), -atk(o)/yatk(o), -eniatk(o), -ts(e), -echk(o)-, -achk/-yachk(o), -yk, -itk(a), yatochk(o), yatonk(o), -ynochk(a/o), -itochk(a/o) build middle or common gender nouns (e.g., *ochko, tsyhancha, yabluchko, lyshenko, koshenia, kurchatko, nemovliatko, zaicheniatko, dzerkaltse, sonechko, zdoroviachko, karapuzyk, syritka, khlopcheniatochko, maleniatonko, syrotynochka, krykhitochka*). The diminutive suffixes -as(asia), -os, -us(usia), -s(-sia), -un(-unia) apply to people’s names (e.g., *Yuras, Ivas, Petrus, Antos, Nastasia, Katrusia, Marysia*).

Contrary to the English language, where, only one suffix is attached to the root of a noun, in the Ukrainian language diminutive suffixes can reach the number of three. Accordingly, there exist Ukrainian derivatives of the first, second and third degrees (e.g., *khata > khat-yn-a > khat-yn-k-a > khat-*

*yn-och-k-a*) as well as simple (e.g., -yk, -ok, ets, k, -k(a), -ts(e), -en(ia)) and compound (e.g., -chyk, -ychok, -ochok, -echok, etc.) derivative suffixes. The simpler suffixes are attached to the root, the weaker becomes the connotation of diminution and the expression of emotions comes to the fore (Cytenko, 2009; Skalozub, 2012).

In the context of an utterance, connotations of diminution (“young age” and/or “small size”) tend to be neutralised and the derivatives express all kinds of emotional-evaluative attitudes to the signified, creating a multifaceted palette, where it is not always easy to distinguish between affection, tenderness, light sadness or even tragedy. E.g., *Proshchai, Volyn! Proshchai, ridnyi kutochok, Mene vid tebe dolenka zhene, Nemov od dereva odirvani lystochok* (L. Ukrainka); *Oi u poli try krynychenky – Ne napytysia vodychenky, Ne napytysia, ne vmytysia, Tilky staty zazhurytysia* (D. Pavlychko).

In some contexts, nouns with diminutive suffixes can acquire not only a positive, but also a negative evaluation and convey feelings of contempt, disdain, or condemnation, as well as imply mockery, irony or sarcasm. E.g., *Kum – kumi, kuma – kumi, Azh odna kumasia, Yak pochula pro take, Malo ne steklasia* (D. Pavlychko); *Hladyt zadovoleno Biurher cherevtse: Likarem dozvoleno Spozhyvat pyvtse* (D. Pavlychko); *Spravdi, ne slid uvazhaty kozhnoi lirychnoi poeziiky za storinku z avtobiohrafii* (L. Ukrainka); *Z chlenamy ukrainskoi delehatsii boitsia zustrichatysia, zate bezstrashno obbrikuie yikh u tsi dni na storinkakh svoiei pliuhavoi hazetky* (F. Makivchuk).

In addition to diminutive suffixes, the Ukrainian language has augmentative suffixes of subjective attitude, associated with negative evaluation and coarseness, although such suffixes form an approximately eight times smaller number of words compared to diminutive suffixes of positive evaluation (Shyprykevych, 1979). The augmentative suffixes -ak, -uk/-yuk, -uhan/-yuhan, -an build masculine gender nouns (e.g., *parubchak, parubchuk, diduhan, vitriuhan, zdorovan*); the suffixes -er(a), -eri(ia), -entsi(ia) create feminine gender nouns (e.g., *babera, -baberiia, babentsiia*). There are also suffixes with rude and contemptuous connotations that form nouns of all genders; e.g., -ak/-yak(a), -uk/-yuk(a), -uh/-yuh(a), -ah/yah, -yshch(e), -chynyshch(e), -ysk(o), -ur/-yur, -yar(a) (e.g., *pysaka, mordiaka, kameniuka, zlodiuka, diduha, katiuha, khvostiaha, babyshche, chumachynyshche, vovchysko, nosiura, kotiara*).

The suffixes n(ia), -v(a), -o(ta) create collective nouns of negative evaluation that denote groups of people belonging to a certain collective on the grounds of age, sex, nationality, etc. (e.g., *babnia*, *ofitsernia*, *tatarva*, *panota*), and actualise rude, disparaging connotations.

In the context of an utterance, augmentative connotations create the basis for the expression of negative emotions – from ironic dissatisfaction and dislike to contempt and hatred (Boiko, 2010; Sahach, 1974; Kaleniuk & Savchuk, 2019). E.g., *Potryvaite zh! – kryknula Motria na ves horod. – Tse mabut svekrushyshche pomahala yim miriat!* (I. Nechui-Levytskyi); *Yakyis temperamentnyi malaiets-komersant, nesamovyto povodiachy ochyma, liuto rozmakhuie kulachyshchamy pered pobililym administratorovym nosom i katehorychno vymahaie zaraz zhe posadyty yoho v litak, shcho yde na Tokio* (F. Makivchuk); *Shche smerdilo tut vorozhym lihvysskom, konservamy, valialys zadymlyeni hariachi hilzy i kilka shche ne vystrilianykh kulemetnykh dysktiv, zapasni rizhky do avtomativ* (I. Honchar).

Another specific feature of the Ukrainian language is the existence of diminutive as well as augmentative productive suffixes not only for nouns, but also for other parts of speech - primarily for adjectives.

According to Vira Shyprykevych (1979), in Oleksii Pavlovskiy's grammar of the Ukrainian language published in 1818 one can find 9 diminutive derivatives of the adjective *malyyi* [small]: *malenkyi*, *malesenkyi*, *malesesenkyi*, *matsiupenkyi*, *matsiupesenkyi*, *matsiupesesenkyi*, *matsiupenichkyi*, *matsiupesenichkyi*, *matsiupesesenichkyi*. I would also add such modern productive suffixes as -isink (*chystisinkyi*), and -yusink- (*toniusinkyi*).

In fiction and poetry, diminutive adjectives are usually used alongside diminutive nouns rendering affection and tenderness. E.g., *Stoiala hrusha, zeleniv lisochochok. Stoialo nebo, dyvne i sumne. U hrushi buv tonenkyi holosochok, vona v dytynstvo klykala mene* (L. Kostenko).

The Ukrainian adjective-forming augmentative suffixes -ezn- (e.g., *hrubeznyi*, *tovstezna*), and -ushch- (e.g., *kliatushchi*, *khytriushchyi*) convey intensity of the quality and actualise mostly negative or ironic connotations, as in the next example: *Ta ya zh tu bilku prokliatushchu Lyshe pohladyty khotiv* (D. Pavlychko).

The originally noun- and adjective-forming Ukrainian diminutive suffixes -echk, -yechk, -ochk, -enk, -onk, -isink, and -esenk are transferred to the derivational systems of Ukrainian pronouns (e.g., *niskilechky*, *otakisinkyi*

*vsenkyi, samenkyi*), numerals (e.g., *dvoiechko, odnenkyi, piatirechko*) and adverbs (e.g., *nedalechko, tutechky, troshechky, vkupochtsi, tamenky, liubenko, shvydenko, tochnisinko, harnessenko*). The diminutive suffixes -k(y), -onk(y), -onkat(y), -ochk(y), -unechk(y), -usenk(y), -usi, -tsi, -untsi, -oik(y), -ichk(y), -ikat(y), -uliat(y) form verbs (Chernetskyi, 1970) (e.g., *spatky, spatonky, yistochky, pytonky, spatusi, spasusenky*, etc.).

The range of emotional-evaluative connotations of such derivatives is as wide and contextually dependent as that of nouns and adjectives. E.g., *Otruini zuby kobry, Obludlyvi slivtsia. Za Ukrainu-nenku Umerty vin bazha, Ta v sertse yii tykhenko Vstromyv by sam nozha* (D. Pavlychko); *Na Chornomu mori ta na kameni bilenkomu Sydyt sokil yasnennyi, zhalibnenko kvylt-prokvyliatie, Svoiu holovku nyzenko skloniaie* (Duma); *A koly nastane nich, Spatonky vkladaietsia – Odne vukho stele vin, Druhym nakryvaietsia* (D. Pavlychko).

In English, it is more characteristic to express diminution or augmentation not morphologically, by suffixes, but syntactically – with the help of combinations of words [adjective meaning “small” or “big” (e.g., *little, small, petty, tiny, baby/big, large, sizable, huge, colossal, enormous*) + noun]. English noun-forming diminutive suffixes are not numerous (about 16) (Cytenko, 2009; Prystai & Prystai, 2017) and mostly unproductive (Schneider, 2003; Prystai & Prystai, 2017). There is also a single diminutive adjective-forming suffix -ish. As for augmentative suffixes, they do not exist in English.

The only relatively productive diminutive English suffix -y/-ie/-ey is borrowed from the Scottish language. It forms nouns used in informal (casual or intimate) registers of communication (registers are understood according to (Joos, 1961)). Most such derivatives express positive evaluation and favourable attitude towards the referent (e.g., *buddy, mummy/daddy, girlie/-y, birdie, dearie, bookie*). However, some derivatives bear negative connotations and express negative emotions, like disdain (e.g., *whitey, sissy*). This contrast of evaluative connotations is partly explained by the fact that in the English-speaking culture with its relatively high index of masculinity, “diminution” is associated with weakness, and thus tends to be evaluated as “unacceptable”/ “negative” in relation to men (unless this evaluation is neutralised by a familiar or intimate register of communication), and, at the same time, “acceptable”/ “expected”/ “positive” for women and children. E.g., *Even if you hate apples you have to rob orchards or your pals will say you’re a sissy* (A. Ashes); *In essence, the girly girl is slim and slender, beautiful, loves makeup and clothes, and sometimes her entire world is shown*

to revolve around nothing but fashion (S. Singh). The suffix -y/-ie/-ey also applies to proper names used in informal registers of communication for the purpose of intimating speech (e.g., *Rebecca – Becky, Catherine – Cathie, Jessica – Jessy, Sarah – Sally, Margaret – Maggie*). The variants of this productive suffix -sy/-sie/-sies, characteristic of children's speech or speech addressed to children, give nouns affectionate and playful connotations (e.g., *bitsy, footsie, twosies, missy*).

Other English diminutive suffixes (-ock-k/-uck; -let/-lette; et/-ette; -kin) are characterised by word-forming homonymy, that is the same suffix creates purely denotative nouns (e.g., *bullock, anklet, cigarette, napkin*) as well as those that actualise such connotations as “small in size” or “undergrown” (e.g., *hillock, bullock, booklet, novelette, kitchenette, piglet ramekin*).

The suffixes -er/-ers/-ster (e.g., *oldster, rhymester*) and -erel/-rel (e.g., *cockerel*) have some stylistic potential. Both convey a contemptuous emotional attitude towards the referent. The suffix -ling actualises such connotations as “young” and “small” (e.g., *duckling*) and expresses both an affectionate (e.g., *darling*) and contemptuous (e.g., *princeling, underling*) attitude towards the referent.

The English noun-forming suffixes listed above cannot be considered as a productive means of expressing the emotional and evaluative attitude of the speaker to the objects of reality, since they are restricted in number and create a limited number of stylistically marked derivatives.

This conclusion is confirmed by the fact that the results of translation analysis of 100 examples have not yielded a single case of rendering Ukrainian derivatives containing suffixes of subjective attitude, used by Taras Shevchenko, with their English counterpart derivatives.

The translators display two contrasting strategic decisions: the refusal to reproduce connotations embodied by Ukrainian suffixes of subjective attitude, and the attempt to reproduce such connotations.

1. The strategy of refusal to reproduce nuances of meanings expressed by the suffixes of subjective attitude is realised by the following translation procedures:

1.1. A Ukrainian derivative containing a suffix of subjective attitude is rendered by its simple-stem dictionary counterpart. This pattern is employed for:

A. Nouns; e.g., *V haiu – predvichnomu haiu, Postavliu **khatochku**, sadochok Kruhom **khatyny** nasadzhu, Prylynesh ty u **kholodochok**, Tebe, mov kraliu, posadzhu* (T. Shevchenko) – *In a grove, a grove primaeval, A little **house** I'll build, and make **An orchard** all around it growing And you'll fly to me in the **shades**, There, like a beauty, I'll enthrone you* (V. Rich); *Soloveiko v temnim hai Sontse zustrichaie* (T. Shevchenko) – *In shady glades the **nightingales** Sing out the new sun's praise* (V. Rich).

B. Adjectives; e.g., *Na koho pokynuv Batka, nenku **starenkuuu**, molodu divchynu?* (T. Shevchenko) – *To whose care abandoned Father, and your dear **old** mother, And a fair young maiden?* (J. Weir).

C. Adverbs; e.g., *Dnipro, Ukrainu zghadaiem, Veseli selyshcha v haiakh, mohyly-hory na stepakh – I **veselenko** zaspivaiem* (T. Shevchenko) – *Dnipro and Ukraina we Shall recollect, gay villages In woodlands, grave hills in the steppes, And we shall sing right **merrily*** (V. Rich).

D. Verbs; e.g., *I sontse **spatonky** zove* (T. Shevchenko) – *And beckons to the sun **to sleep*** (V. Rich).

It is clear that in all the above and similar cases, the rational denotative meaning of the original text is preserved, but the connotative emotional-evaluative nuances of meaning are lost in translations.

1.2. A Ukrainian derivative containing a suffix of subjective attitude is omitted without any compensation. Omission is more characteristic of Weir who applies it to words of different parts of speech:

A. Nouns; e.g., *Ne slukhala Kateryna Ni batka, ni nenky, Poliubyla **moskalyka**, yak znalo serdenko* (T. Shevchenko) – *Young Katerina did not heed Her parent's warning words, She fell in love with all her heart, Forgetting all the world* (J. Weir).

There is no doubt that the denotative meaning of the omitted noun referring to the object of Kateryna's love can be easily deduced from the context: mother and father warned Kateryna that she should not fall in love with Muscovites, but she did not listen to them and fell in love – and, as one can predict, with a Muscovite. However, the semantic potential of this derivative goes far beyond denotation. Using the diminutive suffix -ik, Shevchenko endows the noun *moskalyk* with such emotional and evaluative shades of meanings as recklessness and worthlessness. On top of that, with the help of this suffix the author shows his disdainful attitude towards the

referent as the person, who seduced, betrayed and left Kateryna without any help, and eventually, brought her to her death.

B. Adjectives; e.g., *Vse nichka pokryla. Vsikh pokryla temnisinka* (T. Shevchenko) – *The night drew over all a sheet* (J. Weir).

The adjective *temnisinka* is an extremely important component of Shevchenko's poem not because it qualifies the night by the intensity of darkness (in this case, it could really be omitted) and not even because, or not only because, it contributes to creating the atmosphere of musicality. In the poem "Kateryna", the dark night provides an opportunity to rest for all tired people, but not for Kateryna. We do not know where she is this night, but we do anticipate that she is experiencing unbearable trials and trials that are even more intolerable are awaiting for her. For Kateryna, the dark night symbolises the unknown: will she find her lover, and will he recognise her and her son? For the author, the dark night symbolises the state of affairs that does not obey his will: he is unable to help Kateryna, he is only an observer and narrator. However, the emotional and evaluative meaning potential of the adjective *temnisinka* prompts us that the author is deeply empathetic with Kateryna's tragedy and feels pain for her.

C. Adverbs; e.g., *A verby het ponad stavom Tykhesenko sobi kupaiut Zeleni vity...* (T. Shevchenko) – *A row of willows washing hands, Their branches, in the waters cool...* (J. Weir).

The function of the adverb *tykhesenko* consists in arousing sensory sensations of the recipients, their imagination, and, perhaps, memories of being in nature, and thereby helps create a picture of the paradise of Ukrainian nature that contrasts with the social hell of serfdom in which Ukrainians live.

1.3. The removal of a Ukrainian derivative containing a suffix of subjective attitude is compensated by a lexical or lexical-grammatical transformation. I refer this procedure to the first group of strategic translation decisions, since such transformations are usually able to compensate for the denotative meaning, but not for the emotional-evaluative connotations.

A. Lexical transformation of contextual substitution; e.g., «*Ya ne znaiu, moia sestro*». *I Tsvit Korolevyi Skhylyv svoiu holovonku Chervono-rozhevu Do biloho ponykloho Lychenka Lilei.* (T. Shevchenko) – *"Alas, my sister, I don't know," Said flower-of-the-king, As tenderly to her he bowed His head of rose-and pink To touch the Lily's pallid cheek* (J. Weir).

Replacing the emotionally coloured noun *lychenko* with the phrase *pallid cheek* allows for the depiction of the image of the girl, but deprives the text of emotionality.

B. Lexical-grammatical transformation of replacement of parts of speech and, accordingly, parts of sentences; e.g., *Yak yahodku, yak ptashechku Kokhala, rostyla, Na lyshenko... Donia moia, shcho ty narobyla?* (T. Shevchenko) – *So tenderly I tended you, So proud to see you grown, Yet all my care is brought to ruin... Oh dear, what have you done?* (J. Weir).

The translator focuses on qualification of the mother's actions, employing the adverb *tenderly* and the adjective *proud*, reinforced by the particle *so*, which reproduces the denotative content of the original text. However, in refusing to translate the diminutives naming the correlates of comparisons (*yak yahodku, yak ptashechku*), which render the intensity of maternal love for Kateryna, the translator fails to convey the emotional tension of the original. Refusal to retain the simile is partly understandable because a direct translation [like a [little] berry, like a [little] bird/ birdie] could hardly reveal Shevchenko's shades of meaning. The author does not mean to liken Kateryna to a berry or little bird. Using these diminutives, he indicates tenderness and care, and perhaps even a premonition of tragedy, awakening associations between the defencelessness of everything small and beautiful in front of a cruel world. And all these meanings are conveyed not by the roots of words, but by the suffixes of subjective attitude, which do not have counterparts in the English language.

As for the expression *Na lyshenko*, its replacement by a purely rational statement that mother's expectations from caring for her daughter have been ruined leaves the recipient far from Shevchenko's connotations. This expression, similar to a woman's lament, conveys the tragedy and hopelessness of the situation in which Kateryna found herself, because in the Ukrainian peasant "culture of shame" an unmarried woman with a child was an outcast, rejected and neglected by the entire community, and her parents could not resist the accepted morality.

Therefore, the refusal to translate words containing suffixes of subjective attitude (with or without compensation) leads not only to the loss of the stylistic colouring of the original text, but also to the loss of a number of emotional and evaluative shades of meanings without which it is impossible to comprehend the depth of Shevchenko's thought.

2. The strategy of reproducing, or rather attempting to reproduce the emotional and evaluative connotations embodied by the suffixes of subjective attitude, which is mostly characteristic of Rich's work, is implemented by the following translation procedures:

2.1. The simplest decision is to use an English equivalent which has a similar emotional and evaluative potential. However, such cases are rather rare due to the limitations of the English restricted lexical inventory of connotative words. E.g., *I Boha blahaiu, Shchob ne pryspav moikh ditok V dalekomu kraiu* (T. Shevchenko) – *Entreat the Lord of heaven That in this distant land my babes* Fall not asleep forever (V. Rich).

The noun *babe*, which is used in informal registers of speech, and displays evaluative and emotional connotations of tenderness/ affection, basically, conveys the meanings expressed by the Ukrainian derivative.

2.2. Translation of a Ukrainian derivative word by a combination of its simple-stem equivalent with some qualifying words, the function of which is to compensate, at least partially, for the loss of connotations conveyed by the suffixes of subjective attitude.

A. Noun connotations are reproduced by adding adjectives like *little, big, young, whole*. E.g., *Za sontsem khmaronka plyve* (T. Shevchenko) – *A little cloud swims to the sun* (V. Rich); *Yak zbyralas hromadonka V nedilenku vrantsi, Yak khovaly kozachenka V zelenim bairatsi* (T. Shevchenko) – *How the whole assembly gathered Early on a Sunday; How they buried a young Cossack In a verdant gully*. (J. Weir).

B. Adverbial connotations are reproduced by adding the following language units to the simple-stem equivalent:

B.1. Particles to strengthen the meaning of the adverbs; e.g., *I veselenko zaspivaiem* (T. Shevchenko) – *And we shall sing right merrily*. (V. Rich).

B.2. Synonymous adverbs to intensify the meaning of the verbs; e.g., *Tykhesenko viter viie, Stepy, lany mriiut* (T. Shevchenko) – *The breezes softly, lightly wake The steppe lands from their dreams* (J. Weir).

B.3. Explanatory phrases containing adjectives like *dear* to reproduce the attitude of the speaker to the referent; e.g., *Nekhai letiat dodomonku Lehenkii dity* (T. Shevchenko) – *Let my aery children fly To that dear land, their home* (V. Rich).

The translations above show that free syntactic combinations of words where each component preserves its meaning cannot reproduce senses embodied by synthetic morphological structures since the latter create semantic gestalts that cannot be reduced to the sum of their meaning components since these components exist as the indivisible whole.

2.3. Rendering a derivative with a suffix of subjective attitude by means of a holistic transformation, in particular, by means of a phraseological unit that expresses the intensity of the emotion embodied in the original text. E.g., *Chy khto zghadaie, chy zabude Mene v snihu na chuzhyni* – **Odnakovisinko meni** (T. Shevchenko). – *If men recall me, or forget, Lost as I am, in foreign snow, – Touches me not the slightest whit* (V. Rich).

2.4. Rendering a derivative with a suffix of subjective attitude with the help of a synonymous word of another stylistic register, in particular, an obsolete/ archaic one. E.g., *Choho ty bazhaiesh, shcho v tebe bolyt? Chy pyty, chy yisty, chy spatonky khochesh?* (T. Shevchenko) – *What do you long for? Why are you ailing? Are you longing for food or for drink or repose?* (V. Rich).

In contrast to the neutral *sleep*, the verb *repose* creates a more exalted style of speech, but does not reproduce the emotional and evaluative palette embodied by the verb *spatonky*.

Transition to a lofty, pathetic style of speech is characteristic of Voynich's translations. E.g., *Nema z kym tykho rozmovliaty, Ani poradytys. Nema, Anichohisinko nema!* (T. Shevchenko) – *With no man converse shalt thou hold, With no man shalt take counsel; nought. Nought art thou, nought be thy desire* (T.L. Voynich).

The translator conveys the pronoun with the suffix of subjective attitude *anichohisinko* with the help of the archaic word *nought* – *nothing* and strengthens the pathos by repeating this word three times, referring to the biblical allusion (*thou art* is biblical *you are*). Such attempts can hardly be considered successful, because pathos is in no way characteristic of Shevchenko's work.

A common weak point of the analysed translations is that along with the loss of emotional and evaluative connotations, they lose the ability to achieve the emotional resonance with the addressee. However, this weak point is in not related to translation skills. It stems from the specificity of the grammatical structure of the English and Ukrainian languages offering

specific means of rational categorisation and emotional evaluation of the surrounding world.

### ***2.3. Causation/controllability vs. probability/uncontrollability embodied in the grammatical structure of Ukrainian and English***

In both contrasted languages, the semantic opposition of “causation / controllability vs. probability / uncontrollability” is embodied in personal (active and passive) and impersonal constructions that represent two different models of interaction of the subject of cognition/speech with the surrounding world.

Personal constructions of both voices represent a causative/controllable worldview where the action is caused and controlled by an entity that is either known (active voice) or entirely predictable (passive voice). Impersonal constructions represent a probabilistic/uncontrollable worldview where the action is issued by some unknown and unpredictable force.

The active voice endows the subject of a sentence with the semantic role of an agent that performs an action; e.g., *Students adore Peter/ Studenty obozhniuiut Petra*. When an active-voice sentence is transformed into a passive-voice one, the agent turns into the patient that is acted upon (*Peter is adored by his students/ Petro obozhniuietsia yoho studentamy*). The agent of a passive-voice action can remain unexpressed/ unknown (*The house is being built/ Dim buduietsia*). However, it is quite predictable; e.g., *The house is being built/ Dim buduietsia* [by whom? – by builders].

Impersonal sentences denote phenomena/ states/ processes/ situations, the cause of which is not only unknown but also unpredictable. Thus, contrary to passive sentences, they cannot be associated with any agent; e.g., [What?] *Vechoriye – It* [what is “it” ?] *is growing dark*.

In English, the grammatical category of voice depends on such a lexical-grammatical characteristic of the verb as transitivity, which means the ability of a verbal predicate to take a direct object. The English voice is a classic morphological category. Most active-voice constructions with a predicate, expressed by a transitive verb, are easily transformed into passive-voice ones with the help of the so-called discontinuous morpheme [be + inflections of the Past Participle]. E.g., *Mary builds/built/’ll build/ is/*

*was/’ll be building/has/had/’ll have building/has/had been building a house  
The house is/was/’ll be built/is/was being built/has/had/’ll have been built  
by Mary.*

Following the tradition of rhetoric that goes back to Aristotle, English language experts, from school teachers to university professors, advise avoiding passive constructions at all costs. This point of view is voiced, among others, by Constance Hale, the author of “Sin and Syntax”, an effective speech guide: “Whether you are writing the next novel, a scholarly paper, a legal brief or a brief Tweet, be aware of the voice of your verbs. Try letting each sentence tell a little story, with an agent right there at the start. Set your protagonist in action. Do you want him, as Hamlet would say, “to take arms against a sea of troubles,” or would you rather he be left lying flat on his back, leaving his destiny up to someone else?” (Hale, 2012.04.30). Such rejection of the passive voice is quite expected and understandable, since this grammatical structure embodies a worldview that does not support the values of the English-speaking culture.

In Ukrainian, the mechanism of passive voice formation is more complicated. Quite a few issues remain debatable, including the number of voices and their grammatical status. The authors of the academic grammar of the Ukrainian language (Bilodid et al, 1969, 1972) distinguish between the active voice and the passive voice and emphasise that only transformations of the active constructions into the correlative passive ones should be considered as truly grammatical voice forms. Accordingly, they differentiate between two patterns of passive-voice formation:

1) morphological (synthetic) – adding the postfix **-sia (-s)** to active imperfective verb-stems (*doslidzhuvaty – doslidzhuvatysia*); e.g.: *Na Ratushi u Kolomyi shchodnia nazhyvo zvuchyt Himn Ukrainy. Liudy slukhaiut i nadykhaiutsia patriotyzmom* (Basalyha, 2022) ← *Patriotyzm nadykhaie liudei*;

2) syntactic (analytic) – a combination of the auxiliary verb **buty** [be] with a **diieprykmetyk** [Passive Participle] that is created from an active-voice verb in the perfective and imperfective form (*sporudyty – sporudzhenyi, sporudzhuvaty – sporudzhuvani*). E.g., *Terem kyivskykh kniaziv zbudovanyi buv na dva poverkhy* (S. Skliarenko) ← *Terem kyivskykh kniaziv [budivnyky] zbuduvaly na dva poverkhy; Eneiem kynuta ya bidna* (I. Kotliarevskyi) ← *Enei pokynuv mene*.

I believe that we should interpret the second pattern as morphological (analytic) but not syntactic on the following grounds. The syntactic mode of expression embraces only free combinations of words. In the analysed case, we deal with grammatical forms created, similar to their English counterparts, with the help of the discontinuous morpheme [buty + the inflections of the diieprykmetnyk, marked for the number, person, gender and case (zbudovanyi/-na/-no/-ni/-noho/-nu, etc.)].

As to the participial predicative forms in -no, -to (e.g., *sporudzhenno, rozghlianuto*), regarded as passive constructions by some linguists (Matviienko, 1936; Bulakhovskiy, 1958; Pliushch, 1986), the authors of the academic grammar of the Ukrainian language (Bilodid et al, 1972) qualify them as active indefinite-personal forms that can be transformed into passive forms by adding the postfix -sia (-s). E.g., *Davno zabuto, shcho ye – zhyty, I shcho ye – svit, i shcho ye – ty.* (V. Stus) → *Davno zabulosia, shcho ye – zhyty; Vin hariachkovo vidnovyv u pamiaty vse, shcho tut bulo hovoreno...* (M. Tarnovskiy) → *Vin hariachkovo vidnovyv u pamiaty vse, shcho tut hovorylosia.*

The Ukrainian linguistic tradition rejects the passive voice as heartily as the English one. Ukrainian linguists emphasise that passive constructions shifting the agent into the background do not correspond to the nature of live speech, where the subject and their action are in the focus of the message (Hladkyi, 1930, p. 46–47; Kurylo, 2008, p. 55). There are claims that active constructions constitute a typological feature of the modern Ukrainian literary syntax and the Ukrainian national language as a whole (Horodencka, 2001, p. 14). The spread of the passive voice in formal Ukrainian is explained by the influence of the Russian language resulting from Ukraine's long stay within the Russian Empire (Nepiyivoda, 1997, p. 259).

Impersonal constructions exist in both contrasted languages. However, if in Ukrainian they take the shape of one-member sentences, in English they necessarily contain a formal subject, expressed by the pronouns *it* or *there*, following a strict rule, according to which a grammatically correct English sentence must have a subject, even if it is a formal one.

From a cognitive point of view, it is important to distinguish between:

1) impersonal sentences that represent states of affairs in the surrounding world, external to the subject of cognition/speech;

2) impersonal sentences that express internal psychophysiological states, experienced by the subject.

1. Impersonal sentences of the first group designate:

1.1. Natural phenomena/ states/ processes; e.g., *Vechoriie – It is growing dark; Svitaie – It is dawning; Doshchyt – It is raining; Zymno – It is wintry.*

1.2. Presence/existence or absence of something; e.g., *Nema tomu ni pochatku, ni kraiu – There is neither beginning nor end to it.*

In such cases, the subject of cognition/speech is an outside observer of the described phenomena, which are beyond their will.

Ukrainian impersonal sentences of this type do not pose any translation difficulties since they have English impersonal counterparts; e.g., *Smerkaloisia... ohon ohnem Kruhom zapalalo.* (T. Shevchenko) – **It was growing dark...** *Then fires were lit* (J. Weir); *I nema tomu pochynnu, I kraiu nemaie!* (T. Shevchenko) – **There's no beginning to all this, Of ending, too, there's none!** (J. Weir); *A bilshe ni v koho spytat* (T. Shevchenko) – **And there is no one else to ask.** (V. Rich).

2. Impersonal sentences of the second type are of much greater interest for this study. These Ukrainian sentences do not have English counterparts. In such Ukrainian impersonal sentences, the subject-agent is absent, unknown, and unpredictable while the object-experiencer is indicated by noun/pronoun in the dative case or omitted but easily inferred from the context. Ukrainian impersonal sentences of this type denote:

2.1. Psychophysiological states/processes: emotional experiences, including pain, sensory sensations, memories, and mental processes, expressed by:

2.1.1. Impersonal verbs with or without the postfix -sia (-s) as well as personal verbs used with the impersonal meaning, such as *(ne) pysatysia, (ne) spatysia, (ne) syditysia; lykhomanyty, morozyty; bachytysia, vvyzhatysia, zdavatysia, chutysia, marytysia, pryvydzhuvatysia, snytysia; pamiatatysia, zghaduvatysia, dumatysia.* E.g., *Chuiu ya – ne spytsia shchos moiemu parubkovi* (M. Vovchok); *Odnak, mene morozyt* (M. Kotsiubynskyi); *Pered nym paniv lykhomanylo, triaslysia, yak voseny lyst na osytsi* (P. Kachura); *Tsilisinkyi den mene i terlo, i mialo, i khodyty ne davalo* (P. Myrnyi); *Meni vvyzhaietsia, yak v tykhim, ridnim koli staryi didus navcha svoikh onukiv* (L. Ukrainka); *Odnoho razu pochulosia Oleni sered nochi siurchannia polovoho*

*konyka* (I. Vilde); *A shcho to bude zavtra*, – **dumalos kniazevi** (L. Ukrainka); *I v plechi tak bolilo [meni] nevyterpno* (A. Holovko).

Ukrainian impersonal sentences of this type are translated by the following English grammatical constructions:

A. Active-voice sentences. E.g., *Yak divchata tsiluiutsia, Yak yikh obnimaiut, I shcho toidi yim diietsia, Ya y dosi ne znaiu...* (T. Shevchenko) – *How the girls all kiss their sweethearts, How they hold them close, Embracing, and the love they feel, Still I do not know...* (V. Rich); *Ta y son zhe, son, naprychud dyvnyi, Meni prysnyvsia* (T. Shevchenko) – *Oh, what a vision rare I saw In sleep that night* (J. Weir)

The original Ukrainian sentences focus on the outcome of the activity, expressed by the impersonal verb, which causes certain psychophysiological states of the experiencer: something is being done to the girls when they are being kissed or some vision is being shown to the speaker in his sleep. The experiencers of the outcomes of these activities are indicated by the personal pronouns in the dative case, which endows them with the semantic role of recipients/ patients of some action. This action is not subjected to control on their part. The source of this action is neither known nor predictable.

The English translations provide a different conceptualisation of the situation. They focus attention on the experiencers (the girls or the speaker) of the psychophysiological states described by the verbal predicates. The experiencers are indicated by the corresponding personal pronouns in the nominative case that correlate with the subjects of active-voice sentences. This creates an illusion that the experiencers are agents in full control of their actions. However, the meanings of the verbal predicates and their direct objects that denote psychophysiological states of being in love and seeing a dream go contrary to active voice semantics and make it clear that the experiencers cannot control their states.

B. Impersonal (full or elliptical) sentences with a formal subject expressed by the pronoun *it* and a nominal predicate with the predicative expressed by an adverb denoting a certain psychophysiological state. The experiencer of the state is explicated by the combination of an objective case personal pronoun and the preposition *for*. E.g., *Meni lehshaie v nevoli, Yak ya yikh skladaiu* (T. Shevchenko) – *It is easier in slavery For me, when I write them* (V. Rich).

In this case, the conceptualisation of the situation might seem similar, since both the original and the translation contain impersonal sentences. However, this similarity is only superficial. The Ukrainian sentence focuses on the action/ result of the action of some unknown force, and the subject of speech poses as the receiver/ patient of this action and, consequently, the experiencer of the consequences of this action. In the English sentence, the dynamic is gone: the state, experienced by the subject of speech, is not associated with any action, it is just stated.

2.1.2. Adverbs like *bolisno, pryjemno, prykro; chutno, vydno* or nouns like *bida, hrikkh, dyvo, dosada, zhal* in the function of predicatives. E.g., **Radisno bulo [meni], shcho v tsii borotbi z burianamy ye y moia chastyna vpertoi pratsi** (A. Holovko); *Nevzhe i yomu trishky-trishky liachno, tryvozhno* (O. Honchar); *A yak by dobre [usim nam] bulo, koly b usi zhyly po nii [po pravdi]* (P. Myrnyi); **Chutno pleskit u strumochku** (L. Ukrainka); **Vydno, khoch holky zbyrai** (M. Nomys); *Vasylyni bulo chohos sorom* (I. Nechui-Levytskyi); *Azh shkoda stalo Lini batka v yoho pokirnosti ta peredchasnii raptovii zistarenosti* (O. Honchar); *Okh zhal meni chovna, okh, zhal moho sertsia!* (Ye. Hrebinka).

Such Ukrainian impersonal sentences are rendered by:

A. Personal (full or elliptical) active-voice sentences with:

A.1. Verbal predicates: *Choho meni tiazhko, choho meni nudno* (T. Shevchenko) – *Why do I feel so heavy? Why so weary?* (C.H. Andrusyshen & W. Kirkconnell); ... **tiazhko! Nudno!** (T. Shevchenko)– **I cannot bear This ache that's in my soul!** (J. Weir)

A.2. Nominal predicates with the predicatives expressed by adjectives or Past Participles: **Liubo meni. Liubo meni z nymy, Mov batkovi bahatomu Z ditkamy malymy** (T. Shevchenko) – **I am happy with them, Like a rich and prosperous father With his little children** (V. Rich); *A unuky? Yim baiduzhe* (T. Shevchenko) **A Their grandsons?– Oh, they're not concerned** (J. Weir); *Dumy moi, dumy moi, Lykho meni z vamy* (T. Shevchenko) – **O my thoughts, my heartfelt thoughts, I am troubled for you!** (V. Rich); *Khto vatazhkom Pide pered vamy? Khto provede? Lykho, dity, Lykho meni z vamy!* (T. Shevchenko) – **Who'll guide you? Who will walk ahead? My sons, I'm worried so!** (J. Weir).

The conceptualisation of the situation represented by the Ukrainian sentences and their English translations, both with verbal and nominal

predicates, is different. In the Ukrainian sentences, the focus of attention is on a certain uncontrolled psychophysiological state experienced by the subject of speech that is indicated by a personal pronoun in the dative case, which makes the subject the semantic object/ patient of the action. In the English sentences, the focus of attention is on the subject of speech who is experiencing a certain psychophysiological state. The subject of speech correlates with the subject of the active-voice sentence, which endows him with the semantic role of the agent.

B. Personal sentences that offer a metonymic or metaphorical reinterpretation of the situation. E.g., *Tiazhko yomu, Tiazhko, a ne plache* (T. Shevchenko) – *His heart is sore And yet he does not weep.* (J. Weir); *Bo bez nei v khati Yakos sumno – niby maty Pokynula khatu.* (T. Shevchenko) – *For without her, the home Was somehow sad, as though the mother Were away from home.* (V. Rich).

The first translation depicts the desperate emotional state of the referent through metonymy – the heart that hurts, and the second translation renders the experience through metaphorical personification – the house abandoned by the mother is endowed with the ability to feel sad.

C. Impersonal (full or elliptical) sentences with the formal subject *it* and a nominal predicate, where the predicative is expressed by adverbs to indicate a certain psychophysiological state. E.g., *Tiazhko matir pokydaty U bezverkhii khati. A shche hirshe dyvytysia Na slozy ta laty* (T. Shevchenko)– *It's hard to leave your mother dear, No roof above her head, But harder yet to watch her tears, Her rags, her lack of bread* (J. Weir); *Tiazhko ditei hoduvaty U bezverkhii khati, A shche hirshe staritysia U bilykh palatakh* (T. Shevchenko)– *Hard it is to rear your children Among roofless walls, But it is worse, far worse, to grow Old in splendid halls* (V. Rich); *Strashno vpasty u kaidany, Umyrat v nevoli* (T. Shevchenko) – *Terrible to fall into chains, Die in captivity* (V. Rich).

In this case, the conceptualisation of the referential situation in the Ukrainian and English impersonal sentences coincides.

2.2. Desire or reluctance, embodied by impersonal verbs such as (*ne*) *khotitysia, kortity*. In the structure of such Ukrainian impersonal sentences, the verbs are combined with the infinitive, which can be omitted if it is easily inferred out of context. The experiencer of the desire is represented by a noun/pronoun in the dative case. E.g., *Ne khochetsia yomu chohos ni*

*rozdiahatys, ni rozdashovuvatys* (A. Holovko); *Oi, yak [meni] khochetsia uchytyts, shchob vesty yoho samii!* (P. Tychyna); *Khlib na stoli lezhyt – [meni] kortyt [zisty] yoho* (P. Myrnyi).

In the English translations, such impersonal sentences are rendered by personal active-voice (full or elliptical) sentences. E.g., *Ne meni Pro teie znat, za shcho karaius, Ta y znat ne khochetsia meni.* (T. Shevchenko) – *To know The reason why is not for me, I do not even wish to know* (V. Rich); *A ya ledve dodybala Do vashoi khaty, Ne khotilos na chuzhyni Odnii umyraty.* (T. Shevchenko) – *And I could hardly hobble back, Come back to your home, I did not wish in foreign parts To perish all alone!* (V. Rich); *Ne khotilos v snihu, v lisi, Kozatsku hromadu Z bulavamy, z bunchuhamy Zbyrat na poradu* (T. Shevchenko) – *Did not wish, far in this forest, In the snow to gather The Cossack host to council here, With their staves and banners* (V. Rich).

Accordingly, while in the Ukrainian impersonal sentences the state of desire is presented as uncontrolled by the subject, in the English translations this state is conceptualised as a manifestation of the subject's will.

2.3. Good luck/ bad luck or certain existential changes that are neutral to evaluation. These states /processes are instantiated by:

2.3.1. Impersonal verbs like *(ne) shchastyt, (ne) talanyt, (ne) fortunyt, diietsia, dovodytsia*. E.g., *Ye zh na sviti nevezuchi liudy, yakym ni v chomu ne talanyt* (M. Stelmakh); *Hrytskovi spravdi ne talanylo* (B. Hrinchenko).

In the English translations, such Ukrainian impersonal sentences are reproduced by:

A. Personal active-state sentences with an indefinite subject. E.g., *Ne za Ukrainu, A za yii kata dovelos prolyt Krov dobre, ne chornu.* (T. Shevchenko) – *Not for our Ukraine, But for her hangman they made you shed blood* (V. Rich)

In the Ukrainian sentence, the existential change that occurs with the referent is presented as the result of the action of some unknown, uncontrollable force. In the English translation, this change is described as the result of the controlled and predictable action of a certain force that is indicated by the pronoun *they*. And although the agent is not named, it can be easily deduced from the context: it is the Russian autocracy that forced Ukrainian soldiers to participate in the enslavement of the peoples of the Caucasus.

B. Active-state personal sentences that give a metaphorical reinterpretation of the situation. E.g., *Meni trynadtsiatyi mynalo* (T. Shevchenko) – *My thirteenth year was wearing on* (V. Rich); *Chudno yakos Diietsia mizh namy!* (T. Shevchenko) – *Strange the way Things chance with us, indeed.* (V. Rich)

In the first Ukrainian sentence, the existential change occurring with the subject of speech is depicted as the result of the action of some unknown, uncontrollable force. The subject, indicated by the dative-case personal pronoun, is a patient-experiencer of this change. In the English translation, the thirteenth year of the speaker's life is detached from the speaker and presented as an independent process extended in time, which the subject observes from a distance, as if it were happening not to him.

In the second Ukrainian sentence, the speaker describes the result of the action, issued by some unknown forces, which he and his environment are experiencing. In the English sentence, these forces are reinterpreted as personified entities named by the noun *things* that are capable of carrying out some uncontrollable and unpredictable activity.

2.3.2. Adverbs like *liubo* or nouns like *talán, dolia, lykho*, which function as predicatives. E.g., *Mii Bozhe mylyi, znovu lykho!.. Bulo tak liubo, bulo tykho* (T. Shevchenko).

Such sentences are translated by:

A. Personal active-state sentences: “*Z nas budut liudy*” – *ty skazala.* (T. Shevchenko) – “*And you'll be somebody in time!*” (J. Weir).

In the Ukrainian sentence, the process of transforming the referent into a person of consequence is depicted as independent of his will, as such that is performed upon the referent. In the English sentence, the focus of attention is on the active subject, which will eventually turn into somebody in the natural cause of events.

B. Personal active-state sentences, which give a metaphorical reinterpretation of the referential situation. E.g., *Sterezhitsia zh, Bo lykho vam bude, Tiazhke lykho!* (T. Shevchenko) – *Then beware, For evil will befall you, Grave evil.* (V. Rich); *Koly nema doli, nema talanu!* (T. Shevchenko) – *When only misfortune, no luck have I got?* (J. Weir); *U vsiakoho svoia dolia I svii shliakh shyrokyi* (T. Shevchenko) – *Each man on earth has his own fate, Each one his highway wide.* (J. Weir).

In the Ukrainian sentences, future fortune/ misfortune is represented as being cast upon the referent regardless of his will. In the English translation of the first sentence, misfortune is presented as a personified entity capable of action, and the referent is conceptualised as the recipient of this action. In the second translation, fortune is represented as a material thing that the referent can possess.

The results of the analysis prompt an assumption that a general problem of translating Ukrainian impersonal sentences into English comes from the lack of grammatical means to convey the unpredictability and uncontrollability of the impersonal action, which is underpinned by the probabilistic/uncontrollable worldview of reality.

### **3. Conclusions**

The results of the structural-semantic and cognitive translation analysis confirm the research hypothesis that the analysed grammatical phenomena – morphological vs. syntactic ways of expressing subjective attitude and impersonal vs. personal constructions – reflect two models of human interaction with the surrounding world: emotional-evaluative/ probabilistic vs. rational/ causal. These models are embodied in specific conceptual structures of representatives of Ukrainian-speaking and English-speaking cultures that materialise in culture-specific grammatical constructions and thus create a translation problem.

In the English worldview, the subject perceives and describes the surrounding world as a detached observer who identifies/ categorises entities, gives them appropriate evaluations and acts rationally in relation to these entities. The world is assumed to exist within the cause-and-effect framework and therefore it is seen as controllable and predictable.

In the Ukrainian worldview, the subject perceives and describes the surrounding world as a participant of the interaction who combines identification/ categorisation of entities with their emotional evaluation and acts in relation to these entities, constantly experiencing the impact of their responsive action. The world is imagined to exist in a variable-probabilistic rather than a causal-causative framework, and therefore it is seen as far from being predictable and controllable.

The courses “Contrastive grammar of the English and Ukrainian languages” and “Contrastive stylistics of the English and Ukrainian languages” should not only include a structural-semantic comparative analysis of the grammatical and stylistic structures of the two compared languages, but also provide an idea of the cognitive nature of these structures. This is important because cognitive underpinning determines linguistic and cultural similarity or specificity of language structure that affects translation decisions.

## References

- Basalyha, M. (2022). *Liudy slukhaiut i nadykhaiutsia patriotyzmom [People are listening and are inspired by patriotism]. Dzerkalo Media. Retrived from <https://suspinle.media/236499-ludi-sluhaut-i-nadihautsa-patriotizmom-na-ratusi-u-kolomii-sodnazivo-zvucit-gimn-ukraini>*
- Benedict, R. (1946). *The chrysanthemum and the sword. Patterns of Japanese culture*. Boston: Houghton, Mifflin Company.
- Bilodid, O.K. (Ed.). (1972). *Suchasna ukrainska literaturna mova: Syntaksys [Modern Ukrainian literary language: Syntax]. Kyiv: Naukova dumka.*
- Boiko, L. P. (2010). *Stylistychni mozhyvosti sufiksiv subiektyvnoi otsinky v poezii D. Pavlychka [Stylistic potential of suffixes of subjective evaluation in D. Pavlychko's poetry]. Aktualni Problemy Slovianskoi Filolohii, 23(3), 382–388. Retrieved from <http://dspace.nbuv.gov.ua/handle/123456789/38314>*
- Bulakhovskiy, L. A. (1958). *Pidmet i prysudok v ukrainskii literaturnii movi [Subject and predicate in the Ukrainian literary language]. Kyiv: Radianska shkola.*
- Chernetskyi, V. (1970). *Deminutyvni formy infinityva v ukrainskii movi [Diminutive forms of the infinitive in Ukrainian language]. Movoznavstvo, 5, 42–48.*
- Hale, C. (2012, April 4). *The pleasures and perils of the Passive. New York Times Blogs. Retrieved from <https://opinionator.blogs.nytimes.com/2012/04/30>*
- Hesselgrave, D.J. (2002). *Counselling cross-culturally: An introduction to theory and practice for Christians*. Eugene: Wipf and Stock Publishers.
- Hladkyi, M. (1930). *Mova suchasnoho ukrainskoho pysmenstva [The language of modern Ukrainian writers]. Kharkiv: Derzhavne vydavnytstvo Ukrainy.*
- Hofstede, G. (1983). Culture’s consequences: International differences in work-related values. *Administrative Science Quarterly. Johnson Graduate School of Management, Cornell University, 28 (4), 625–629.*
- Hofstede, G. (1991). *Cultures and organizations: software of the mind*. London: McGraw-Hill.
- Hofstede, G. (2001). *Culture’s consequences: Comparing values, behaviors, institutions, and organizations across nations*. Thousand Oaks: Sage.

- Hofstede insights (n.d.). Retrieved from <https://www.hofstede-insights.com/country-comparison>
- Horodenska, K. (2001). *Syntaksychna spetsyfika ukrainskoi naukovoï movy [Syntactic specificity of Ukrainian scientific language]. Ukrainska Terminolohiia i Suchasnist, 4, 11–15.*
- Humboldt, W. (1936). *Über die Verschiedenheit des menschlichen Sprachbaues und ihren Einfluss auf die geistige Entwicklung des Menschengeschlechts.* Berlin: Dümmler.
- Joos, M. (1961). *The five clocks.* New York: Harcourt, Brace & World.
- Kaleniuk, S. O., Savchuk, L. O. (2019). *Funktsii sufiksiv subiektyvnoi otsinky v ukrainskomu khudozhnomu teksti [Functions of suffixes of subjective evaluation in Ukrainian fuctiin text]. Mova, 92. 51–54.*
- Kurylo, O. (2008). *Uvahy do suchasnoi ukrainskoi literaturnoi movy [Attention towards modern Ukrainian literary language]. Kyiv: Vydavnytstvo Solomii Pavlychko „Osnovy”.*
- Lakoff, G., Johnson, M. (2002/1980). *Metaphors we live by.* Chicago: University of Chicago Press.
- Langacker, R. (2017). *Ten lectures on the basics of cognitive grammar.* Leiden; Boston: Brill.
- Matviienko, O. (1936). *Pasyvni prysudky na -no, -to i -nyi, -tyi v ukrainskii movi [Passive predicates in -no, -to and nyi, -tyi in the Ukrainian language]. Movoznavstvo, 7, 21–49.*
- Nepyvoda, N. F. (1997). *Mova ukrainskoi naukovo-tekhnichnoi literatury (funktsionalno-stylistychnyi aspekt) [Language of scientific-technological literature (functional-stylistic aspect) ]. Kyiv: TOV “Mizhnarodna finansova ahentsiia”.*
- Plushch, M. Ya. (1986). *Katehorii subiekta i obiehta v strukturi prostoho rechennia [The categories of subject and object in the structure of a simple sentence]. Kyiv: Vyscha shkola.*
- Popovych, M. V. (1984). *Hryhorii Skovoroda: Biohrafichna povist [Hryhorii Skovoroda: Biographic story]. Kyiv: Molod.*
- Prystai, H.V., Prystai, B.R. (2017). *Funktsionalni modeli tvorennia deminutyviv u anhliiskii ta ukrainskii movakh [Functional models of building diminutives in the English and Ukrainian languages]. Molodyi vchenyi. 2017, 4(3), 212–215.*
- Sahach, H. M. (1974). *Slova z emotsiinymy vidtinkamy znachen [Words with emotional connotations]. Ridne slovo, 9, 36–44.*
- Sausure, de F. (1995/1916). *Cours de linguistique générale.* Paris: Payot.
- Schneider, K. P. (2003). *Diminutives in English.* Tübingen: Max Niemeyer Verlag.
- Shahynian, M. (1941). *Shevchenko [Shevchenko]. Moskva: Hoslytyzdat.*
- Shpyrykevych, V. V. (1979). *„Oi verbychenko, bile lychenko... „ [Oh, little willow, pale little face...]. Kultura slova, 17, 76–81.*

Skalozub, L. H. (2012). *Deryvatsiini osoblyvosti deminytyvnoi leksyky (na materialy tvoriv Marka Vovchka ta Ostapa Vyshni)* [Derivational specifics of diminutive lexis]. *Aktualni problemy filolohii ta perekladoznavstva*, 5, 157–164.

Sytenko, O. (2009). *Typolohiia mizhrivnevykh zasobiv vyrazhennia katehorii deminytyvnosti v anhliiskii ta ukrainskii movakh* [Typology of inter-level means of expressing the category of diminutiveness in the English and Ukrainian languages]. *Linhvistychni studii*, 19, 167–171.

Taras Shevchenko (n.d.). Retrieved from <https://taras-shevchenko.storinka.org>

Tylor, E. (1871). *Primitive culture. Vol 1*. New York: J.P. Putnam's Son.

Weber, M. (1968/1912). *Economy and society: An outline of interpretive sociology*. New York: Bedminster Press.

# CHAPTER 7

## A MODEL OF THE STUDENT INTERPRETER'S TECHNOLOGICAL COMPETENCE

Alla Olkhovska, Leonid Chernovaty

### **Abstract**

The authors propose a model of an interpreter's technological competence, highlighting the growing importance of ICT. They define modern interpreting technologies and the most important software. Using modelling methods, they developed and substantiated a four-component model of technological competence. The motivational component relates to the interpreter's awareness, aspirations and motivation, while the personal component relates to professional qualities. The declarative component requires students to acquire the necessary knowledge, whereas the procedural component relates to the skills required to perform different types of interpreting and use the technology. The authors conclude that, although students have a positive attitude towards interpreting and modern technologies and desire to master ICT and remote interpreting techniques, they generally lack the full range of required knowledge and skills. However, the technical prerequisites for introducing them to professional training are available.

**Keywords:** information technologies; competence model; interpreter training.

### **1. INTRODUCTION**

**Statement of the problem.** The notion of translation competence — generally understood as the knowledge and skills required for professional translation — is central to teaching methodology in translation and interpreting, as it determines the training content. Over the past twenty years, a number of multi-component models of translation competence have been proposed (e.g. PACTE, 2003; González Davies, 2004; Kelly, 2005; Göpferich, 2009), as well as models of translator competence (e.g. Kiraly, 2006; Alves & Gonçalves, 2007; Kiraly, 2013; Chernovaty, 2013). These models have generally been successful in offering different perspectives on this issue. However, the rapid development of translation technologies necessitates a constant review of the concept in question (see, for example, Pym, 2003; Pym, 2013), taking into account new opportunities. Accordingly, in this chapter, we attempt to outline the technological component of a modern interpreter's professional competence.

ICT development is increasing the level of informatisation in education, which is seen as a key to modernisation. Translation and interpreting are two areas undergoing significant change due to new technical advances. Researchers (Zinukova, 2014; Olvera, 2005) highlight the global, specialised, dynamic, demanding, virtual and technologized nature of the modern interlingual mediation services market, and the importance of modern translation technology for competitiveness.

Nowadays, this modernisation has not only extended to translation, but also to interpreting. New technologies allow remote interpreting, making it a new type of mediation. To remain competitive, modern interpreters must familiarise themselves with the different types of interpreting and learn to use modern ICT.

As ICT usage in the translation field flourished and competency models were built, training was made more effective by shifting from a reproductive learning paradigm to a productive one – see the European Master's in Translation (EMT) standard (European Commission, 2017). This first included technological competence (i.e. mastery of translation technologies), as it is now impossible to do the job without them.

However, the standard only addresses the training of translation professionals, and no competency model has been developed for teaching purposes. While recognizing the value of existing research, there is a need for a separate model of interpreters' professional and technological competence, to ensure market compliance and competitiveness. This requires research studying interpreting technologies from a pedagogical perspective, which is why this paper is relevant.

*Analysis of available research.* Interpreting, one of the most complex types of interlingual mediation, is hidden from observation. It therefore seems logical to study its underlying cognitive processes. For example, one of the first studies of interpreting (Sanz, 1930) was devoted to the required mental abilities. Other work has focused on analysis of interpreting research methods (Schlesinger, 2000), cognitive models (Wilcox & Shaffer, 2005), and approaches to interpreting research methods (Pöchhacker, 2015; García, 2019).

In Ukraine, research on interpreting has focused on its psychological basis in training students (Kochubey, 2013), its psycholinguistic and psychological development (Simkova, 2015), and the development of

interpreters' professional cognitive skills (Yunyk, 2016). Previous works have studied interpreting's cognitive processes, including the cognitive strategies of future interpreters under entropy (Chernovaty, 2012), the psychological aspects of developing English article use skills (Olkhovska, 2010), and the psychological foundations of simultaneous interpreting for teaching methods (Olkhovska, 2013).

Interpreting is a relatively new field, so there is still a lot to be researched. There are already some studies on different aspects of the technology, and more are being published all the time. As Mellinger (2019) says, there are two main areas: the impact of technology on the work of interpreters and the use of special translation ICT in their training.

The impact of technology on cognitive processes and the difficulties that interpreters may face are primarily studied (Mellinger, 2019). A comparison of traditional and remote interpreting in criminal proceedings (Braun & Taylor, 2011) showed a significant effect of technology on interpreters' work. Initially, the remote mode was characterised by an increase in errors due to problems relating to linguistic and cultural aspects, and the cognitive overload of interpreters. Additionally, remoteness led to other issues caused by a lack of visual contact and remote listening.

Studies have shown technology positively impacts interpretation quality. Desmet, Vandierendonck & Defrancq (2018) showed greater accuracy in conveying numbers, with a rise from 57% to 87%. This was achieved using a programme that recognises and displays numbers in speech. Another study (Wang & Wang, 2019) found interpreting technology has a positive effect on proficiency and experience. Students with higher levels performed better than those with lower levels, who experienced significant cognitive overload.

The second area of the study included the current status, role and place of ICT in interpreter training (Kalinin, 2017; Sandrelli & Jerez, 2007; Sandrelli, 2015), modern means and promising areas of electronic (Kalinin, 2017) and distant (Ko, 2008) training of future interpreters, as well as the main directions of development of interpreting technologies (Fantinuoli, 2018). The studies also looked at remote interpreting (Braun, 2015; Dörte & Falk, 2009; Moser-Mercer, 2005) and its varieties, including: telephone interpreting (Dörte & Falk, 2009) and webcast interpreting (Silva, 2014); and the specifics of introducing interpreting technologies into interpreter training content at Chinese higher education institutions (Xu & Deng, 2015). Our

previous work (Olkhovska, 2018) established the foundations for studying interpreters' technological competence.

The chapter aims to build a model of interpreter technological competence. It does this by solving several tasks: considering technological competence and the place of interpreting technologies in its structure; identifying the types of interpreting where ICT tools may be used; characterising the main types of technologies for professional interpreters; describing the key technologies for professional interpreters; substantiating the structure of their technological competence; and outlining the prospects for introducing such technologies into future interpreters' professional training.

## **2. RESEARCH METHODOLOGY**

Our research is based on a variety of methods, including analysing industry standards, interpreter training content, and the websites of leading software developers. We also generalised interpreter training methods and used the data from studies that assessed the problem to clarify the research framework and identify the technologies and advantages of professional interpreters. The modelling method enabled us to build a component model of the future interpreter's technological competence. The survey examined students' attitudes towards ICT in interpreting and their technical prerequisites, needs and preferences for its implementation in future interpreter training.

## **3. RESEARCH RESULTS**

This research is based on the model by Chernovaty (2013). In this model, technological competence is part of translation/interpreting competence, which is one of the five components of a translator/interpreter's general professional competence. The other components – bilingual, extra-linguistic, personal and strategic – seem to be common to interpreting and translation, with some reservations about bilingual (oral speech is important in interpreting) and personal (psychological traits such as stress resistance are more significant in interpreting) competencies. Translation/interpreting competence has several subcomponents, one of which is the instrumental subcompetence, which includes the technological subcompetence. This

is becoming more important as ICT is increasingly necessary for the effectiveness, and sometimes even the possibility, of interlingual mediation (e.g. remote interpretation), and the content of the technological competence components is constantly expanding.

The European Commission (2017) defines technological competence as a set of values and professionally important qualities, as well as the knowledge, skills and ability to use ICT for general and specialised translation. The development of ICT has long had a significant impact on translators' work. As well as having general computer skills, such as mastering MS Office, electronic dictionaries and search engines, translators also need to be familiar with various specialised software programmes, including Translation Management Systems (TMS) and Controlled Language Checkers (CLC), localisation tools, machine translation engines and computer-aided translation systems (CAT tools).

The prevalence of translation-oriented tools situation is easily explained by objective factors, such as the smaller share of interpreting in the interlingual mediation services market and the lack of significant economic advantages of using technology in interpreting compared to translation (Fantinuoli, 2018). However, as technology has developed further, the situation has gradually changed, to the extent that the interpreter's environment is now becoming increasingly technologically advanced. The need to master the technological component is specified in the international professional standards for oral mediation: ISO 18841:2018 (Interpreting Services – General Requirements and Guidelines) (ISO, 2018), and ASTM F2089-15 (Standard for the Provision of Interpreting Services) (ASTM, 2015).

The data (Fantinuoli, 2018) shows three key areas driving changes in the professional activities of interpreters: Computer Assisted/Aided Interpreting (CAI), Remote Interpreting (RI) and Machine Interpreting (MI). We suggest adding Simultaneous Interpreting (SI) using special equipment to the list. The above-mentioned areas are where we can find the relevant technological tools, which we will go through in more detail.

Broadly speaking, simultaneous interpreting is a form of mediation whereby an interpreter translates an oral message into another language almost instantaneously (Diriker, 2015). Professional simultaneous interpreting is performed in an isolated booth. The standard equipment required for this, in addition to the booth itself, includes a simultaneous interpreter's console, wireless receivers, headphones, and a microphone (Mas-Jones, 2016).

*Computer-assisted interpreting* (CAI) is defined as a type of interpreting in which the interpreter uses software designed to simplify certain aspects of the task, thereby improving quality and productivity (Fantinuoli, 2018).

Computer Assisted/Aided Interpreting (CAI) tools are software designed to help interpreters prepare and perform tasks (Fantinuoli, 2018; Pielmeier, 2020). These programmes contain modules for preparing for an interpreting task, such as a database with auxiliary materials, the automatic creation of such materials, term extraction and a database of variant terms. Other tools assist with translation by identifying terms and searching based on voice recognition. These tools can also process information after the task is complete, such as organising linguistic material and assessing quality (Pielmeier, 2020).

Researchers (Fantinuoli, 2016) distinguish between the first and second generations of computer tools used in interpreting. The first includes software designed to work with multilingual glossaries, but does not assist with the interpreting task. The second has a wider range of functions, including organising textual material, extracting information, and studying specialised fields.

The first generation of tools includes software such as Interplex and Interpreters' Help. Interplex is user-friendly and constantly updated. It can be installed on different operating systems, including Windows and Mac OS, and there are simplified versions for iOS devices. However, it is only capable of working with glossaries and cannot be used with documents (Costa, Corpas & Durán Muñoz, 2014). Using the programme requires the purchase of a licence.

*Interpreters' Help* was developed in 2014 to provide a comprehensive cloud-based solution for interpreters that includes both glossary management and a professional social network (create your own profile, search for and add people, share your glossaries with others, use the built-in calendar of tasks and events, etc.). The cloud-based architecture of *Interpreters' Help* allows to use the software as an online service from any device – computer, laptop, tablet or smartphone – and by downloading the *BoothMate* app, you can automatically synchronise your glossaries with your new device. Another useful feature of the app is designed to help learning terminology. The „glossary study mode“ turns all glossaries into flashcards, allowing to quickly and conveniently practice using new terminology before performing an interpreting task (Goldsmith, 2020).

*InterpretBank* is a versatile and easy-to-use application among the second-generation tools. It aims to create a full-fledged translator's workplace, allowing the optimisation of the workflow not only before, but also during and after a translation task (Fantinuoli, 2016). The software is made up of several modules. These include an editor for creating specialised glossaries; a glossary management module; a corpus-based preparation tool that allows for automated text collection and terminology extraction; a memorisation module that allows for efficient learning and recall of terminology in preparation for a translation task; and a module for accessing terminology in an isolated booth.

We can now consider technologies related to remote interpreting. Braun (2015) and Mas-Jones (2016) describe this as „distant interpreting“, where ICTs are used at bilingual or multilingual events. Here, the interpreters are in a different room or even on the other side of the globe, with no direct contact with the speakers. Depending on the situation, there are several types of interpreting: simultaneous or consecutive.

*Video remote interpreting* uses video or web cameras to provide consecutive or simultaneous interpreting remotely. This feature is particularly beneficial for individuals with hearing impairments, as it facilitates sign language interpretation. *Webcasting interpreting* differs from *remote video interpreting* in that, in the former, participants can only hear the interpreter, whereas in the latter, they can see them too. In *telephone interpreting*, the interpreter is connected to a telecommunications operator. They are connected via a telephone line connected to loudspeakers. The interpreter works in serial mode (Braun, 2015; Moser-Mercer, 2011).

Researchers (Braun & Taylor, 2011; Moser-Mercer, 2011) have highlighted that remote interpreting is more complex than simultaneous or consecutive interpreting. This is due to a number of cognitive, psychological and physiological factors related to virtual presence, multifactoriality, emotional overload, psychological stress and fatigue. The use of specific technologies is fundamental for remote interpreting, namely *Interpreting Management Systems* (IMSeS) and platforms for providing remote interpreting services (*Interpreting Delivery Platforms* (IDPs)).

Interpreting management systems are specialised software that help to organise the interpreter's workflow. They do this by creating a work schedule, managing translation tasks, and receiving, studying and analysing feedback on the quality of interpretation. This feedback can be for traditional types of

on-site interpreting and for various types of remote interpreting. The main interpretation management systems on the market include: *BoostLingo*, *Plunet Interpreting Management*, *Primaxis* and *Thebigword* (Interpreting Technology, 2020).

Remote interpreting platforms enable various types of remote interpreting and machine interpreting. They allow you to take part in translation projects with others worldwide using devices such as smartphones, tablets, laptops or computers. This type of remote interpretation is called BYOD in the English-speaking world (Interpreting Technology, 2020).

These platforms can be divided into three groups: *Video Remote Interpreting* (VRI), *Remote Simultaneous Interpreting* (RSI) and *Machine Interpreting* (MI). Very often, these platforms combine the ability to provide video remote interpreting and remote simultaneous interpreting. Examples of the first two groups are SPEAKUS and VERSPEAK. Many platforms also provide remote interpreting and are so-called event platforms, i.e. they have full functionality for online events. Examples are *KUDO*, *Interprefy*, *VOICEBOXER* and *Interactio* (Fedorenkova, 2020).

Machine translation is a computer-aided translation system that renders spoken texts from one language to another automatically. This type of translation can be performed by machine interpreting systems, which are software that allows to do this. The main goal of these systems is to replace an interpreter. This is what makes them different from all the other technologies, which are designed to help interpreters in their work or to change the way services are provided (Fantinuoli, 2018).

So far, the success of this technology cannot be described as significant, which can be explained by objective factors. Developers of machine interpreting systems face a wide range of specific problems related to the recognition of spoken language (Hutchins, 2015), which is often conversational, elliptical, context-dependent, interpersonal and dialogic — unlike its written counterpart.

These systems have been unable to adequately interpret simple tasks. Their development has focused on limiting language style and communication areas (Kurematsu & Morimoto, 1996). Projects such as *Verbmobil* (a system for machine translation of business negotiations) and *MedSLT* (a system for doctor-patient communication) have been created. However, all such

software is limited in use and flexibility, and its weakest point is still speech recognition (Hutchins, 2015).

In order to successfully perform different types of remote interpreting, future interpreters will need to develop additional skills and abilities in addition to the standard ones (Mikkelsen, 2016). This conclusion is based on the unique aspects of remote oral interpreting, which is known to increase cognitive load. During this process, the interpreter is partially (in remote video interpreting) or completely (in telephone interpreting) deprived of visual cues and body language (Mas-Jones, 2016). The growth in diversity of ICT for interpreting, as well as the fresh challenges that interpreters face in their work due to technological advances, have given rise to a novel concept: *Computer-Assisted Interpreting Training (CAIT)*. This, in turn, necessitates the creation of a distinct methodology founded on the component model of interpreters' technological competence.

The model we propose comprises four constituent elements: motivational, declarative, procedural and personal. The motivational component encompasses the value domain and suggests that interpreters possess awareness, aspirations and motivation to utilise ICT in their professional activities. The need to use ICT to perform different types of interpreting is something that is becoming more widely recognised. There is also a growing desire to improve the efficiency of the ICT interpreting process. People are motivated to acquire new knowledge related to ICT and the skills to apply it in professional activities. They also want to gain experience through continuous professional growth and self-improvement by mastering new ICT interpreting technologies. This can be achieved by participating in seminars, conferences, etc.

Future interpreters should acquire the necessary knowledge to work with modern interpreting technologies. This includes regulatory documents (e.g. translation industry standards ISO 18841:2018 – Interpreting Services – General Requirements and Recommendations (ISO, 2018), ASTM F2089-15 – Standard for the Provision of Interpreting Services (ASTM, 2015), etc.); general characteristics of technological resources, the main computer tools (e.g. interpreting management systems), platforms for providing relevant services, the modern interpreter's working environment, components of special equipment, specifics of interpreting, machine interpreting, and the main trends in the modern interpreting services market.

The procedural component includes mastery of ICT skills. As this model deals with the technological competence of the interpreter, it seems inappropriate to include general ICT skills, which are components of basic computer literacy. Students should therefore develop skills in the use of computer-aided interpreting tools (CAI-tools): Interplex, Interpreters' Help, Intragloss, InterpretBank, etc. They should also develop interpreting management systems (IM Ses): *BoostLingo*, *Plunet Interpreting Management*, *Primaxis Interpreting Management System*, *Thebigword Interpreting Management System*. They should also learn about platforms for providing remote interpreting services (*Interpreting Delivery Platforms – IDPs*): *CloudInterpreter*, *Headvox*, *Linguali SAS*, *Speakus*. They should also learn about special equipment for simultaneous interpretation (*Simultaneous Interpreting Equipment – SIE*): isolated booth, simultaneous interpreter console, wireless receivers. They should also learn about any other equipment or software that makes the interpreter's work more efficient.

Upon completion of the training programme, the future interpreter will have the skills to perform simultaneous interpreting using specialised equipment, sight interpreting using specialised computer tools, and consecutive interpreting using specialised interpreting management systems and platforms. They will also be able to perform remote interpreting (telephone, remote video interpretation, webcast, etc.) using interpreting management systems and platforms for the provision of interpreting services.

The personal component covers the professionally important qualities of a future interpreter, which are of the utmost importance: psychological stability in different types of interpreting, including those as stressful as simultaneous interpreting with special equipment and different types of remote interpreting; the ability to switch quickly from one language code to another using ICT; persistence in mastering new ICT, including those for specialised interpreting; and focus on lifelong professional development.

To assess the potential for incorporating interpreting technologies into the professional training of future interpreters, we surveyed students at the School of Foreign Languages at V. N. Karazin Kharkiv National University, investigating their needs and preferences and the availability of necessary technical resources. A total of 52 students participated in the survey, including 30 fourth-year undergraduate students and 22 first-year graduate students. The questionnaire consisted of 14 questions. All of the students had previous experience of interpreting; the undergraduates had combined translation and

interpreting classes (including consecutive and sight interpreting) since the fourth semester of their degree, and the graduates had also taken a course in simultaneous interpreting during their first semester, in addition to their experience of consecutive and sight interpreting at the undergraduate level.

According to the survey results, almost all students (96.2%) own a smartphone, 51.9% own a tablet and 90.4% own a laptop. Almost all of these students (88.5%) are always online. All respondents have continuous internet access at home. The majority (82.7%) enjoy different types of interpreting and 71.2% see themselves as professional interpreters. The survey revealed that most students (90.4%) need more interpreting practice, as well as want to master different types of remote interpreting (94.2%) and new interpreting technologies (94.2%). However, the majority of students (94.2%) are unaware of modern interpreting technologies, meaning none of them use computer-based interpreting tools, interpreting management systems or remote interpreting platforms.

Thus, although the students have all the necessary technical prerequisites, such as experience of using computers and the mobile internet, they are mostly unaware of technologies for interpreting. However, they do show a desire to use these technologies. Therefore, an important task for higher education institutions is to include them in their study programmes.

#### **4. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH**

Including ICT interpreting tools in the professional training of future interpreters is urgent and requires new didactic approaches and methods based on sound theoretical models. From this perspective, our study can be seen as an initial attempt to develop a model for the technological competence of interpreters within a national context. The proposed model considers current trends in interpreting technology development (computer-assisted, remote, machine-assisted, and simultaneous with special equipment), and covers their mastery. It also covers different types of remote interpreting (telephone, video, and webcast) and outlines the need to develop the motivational, declarative, procedural, and personal components of an interpreter's technological competence. These components include awareness, desire, motivation, knowledge of modern ICT for interpreting, skills in using ICT, and the ability to perform different types of interpreting, including its remote mode.

The survey, conducted among senior undergraduates and first-year graduates of the School of Foreign Languages of V. N. Karazin Kharkiv National University showed their positive attitude towards interpreting, their strong desire to master modern ICT for interpreting and its remote variants. The high percentage of students possessing technical means and permanent access to the Internet, including via mobile, shows that there are students who are already meeting the technical prerequisites for introducing interpreting technologies into the content of future interpreter training.

We envisage further research into developing a comprehensive methodology for fostering technological competence in interpreters, based on our proposed component model, with the effectiveness of which being verified through experimentation.

The preparation of this chapter was funded by the EU Next Generation EU through the Recovery and Resilience Plan for Slovakia under the project No. 09I03-03-V01-00148.

## References

- Alves, F. Gonçalves, J.L, (2007). Modelling translator's competence: Relevance and expertise under scrutiny. In Y. Gambier, M. Shlesinger and R. Stolze (Eds.). *Doubts and Directions in Translation Studies* (pp. 41-55). Amsterdam: John Benjamins.
- ASTM (2015). *Standard Practice for Language Interpreting: ASTM F2089 – 15*. West Conshohocken, PA: ASTM International.
- Braun, S. (2015). Remote Interpreting. In H. Mikkelsen and R. Jourdenais (Eds.) *The Routledge Handbook of Interpreting* (pp. 352-367). London and New York: Routledge.
- Braun, S. and Taylor, J. (2011). AVIDICUS Comparative Studies – Part I: Traditional Interpreting and Remote Interpreting in Police Interviews. In S. Braun and J. Taylor, Eds. *Videoconference and Remote Interpreting In Criminal Proceedings* (pp. 85-100). Guildford: University of Surrey.
- Chernovaty, L. (2012). Kohnityvni stratehii maibutnikh perekladachiv v umovakh entropii [Cognitive strategies of future translators in entropy]. *Science and Education*, 9, 236-241.
- Chernovaty, L. (2013). *Metodyka vykladannia perekladu (Methodology of Teaching Translation and Interpreting)*. Vinnytsya: Nova Knyha.
- Costa, H., Corpas, G. and Durán Muñoz, I. (2014). Technology-assisted interpreting. *MultiLingual*, April/May, 27-32.
- Desmet, B., Vandierendonck, M. and Defrancq, B. (2018). Simultaneous interpretation of numbers and the impact of technological support. In C. Fantinuoli, Ed. *Interpreting and Technology* (pp. 13-28). Berlin: Language Science Press.

- Diriker, E. (2015). Simultaneous interpreting. In F. Pöchhacker (Ed.). *Routledge Encyclopedia of Interpreting Studies* (pp. 382-385). London and New York: Routledge.
- Dörte, A. and Falk, S. (2009). Information and communication technologies (ICT) in interpreting: Remote and telephone interpreting. In A. Dörte and S. Pöllabauer (Eds.). *Spürst Du wie der Bauch rauf-runter? Fachdolmetschen im Gesundheitsbereich (InterPartes)* (pp. 9-27). München: Martin Meidenbauer.
- European Commission (2017). *European Master's in Translation (EMT) Competence Framework 2017*. [Online]. Available: [https://ec.europa.eu/info/sites/info/files/emt\\_competence\\_fwk\\_2017\\_en\\_web.pdf](https://ec.europa.eu/info/sites/info/files/emt_competence_fwk_2017_en_web.pdf). Accessed on: May 18, 2020.
- Fantinuoli, C. (2016). InterpretBank. Redefining computer-assisted interpreting tools. In *Proceedings of the 38th Conference on Translating and the Computer* (pp. 42-52). London, UK, November 17-18.
- Fantinuoli, C. (2018). Computer-assisted interpreting: challenges and future perspectives. In I. Durán-Muñoz and G. Corpas Pastor (Eds.). *Trends in e-Tools and Resources for Translators and Interpreters* (pp. 153-174). Leiden: Brill.
- Fantinuoli, C. (2018). Interpreting and Technology: The Upcoming Technological Turn. In C. Fantinuoli (Ed.), *Interpreting and Technology* (pp. 1-12). Berlin: Language Science Press.
- Fedorenkova, N. (2020). 6 platforms for remote simultaneous interpreting (RSI) and Zoom [Online]. Available: <https://translationrating.ru/remote-interpreting-platforms-2020/>
- García, A. (2019). *The Neurocognition of Translation and Interpreting*. Amsterdam and Philadelphia: John Benjamins Publishing Company. DOI: <https://doi.org/10.1075/btl.147>.
- Goldsmith, J. (2020). The Interpreter's Toolkit: Intragloss – a useful glossary-building tool for interpreters [Online]. Available: <https://aiic.net/page/7886/the-interpreter-s-toolkit-intragloss-a-useful-glossary-tool/lang/1>. Accessed on: June 12, 2020.
- Gonzales Davies, M. (2004). Multiple voices in the translation classroom: activities, tasks and projects. Amsterdam: John Benjamins.
- Göpferich, S. (2009). Towards the model of translation competence and its acquisition. The longitudinal study TransComp. In: S. Göpferich (Ed.), Behind the mind: Models and results in translation process research (pp. 11-37). Copenhagen: Samfundsliteratur.
- Hale, S. (2015). Competence. In F. Pöchhacker (Ed.), *Routledge Encyclopedia of Interpreting Studies* (pp. 69-70). London and New York: Routledge.
- Hutchins, J. (2015). Machine translation: history of research and applications. In C. Sin-Wai (Ed.). *The Routledge Encyclopedia of Translation Technology* (pp. 120-136). London and New York: Routledge.
- Interpreting Technology. Globalization and Localization Association. [Online]. Available: <https://www.gala-global.org/interpreting-technology>. Accessed on: June 12, 2020.

- ISO (2018). *Interpreting services – General requirements and recommendations: ISO 18841:2018*. ICS 01.020; 03.080.99. Geneva: International Organization for Standardization.
- Kalinin, A. (2017). Informatsiyno-kommunikatsiyno tekhnologii v obuchenii ustnoho perevoda: kompiuterniye sredstva y multimedia-kontent [Information and communication technology in interpreter training: e-tools and multimedia content], *Vestnik PNYPU, Problemy yazykoznanyia i pedahohyki*, 2, c. 131–139.
- Kelly, D. (2005). *A handbook for translator trainers: A guide to reflective practice*. Manchester: St. Jerome.
- Kiraly, D. (2006). Beyond Social Constructivism. Complexity theory and translator education. *Translation and Interpreting Studies*, 1(1), 68-86.
- Kiraly, D. (2013). Towards a view of translator competence as an emergent phenomenon: thinking outside the box(es) in translator education. In: D. Kiraly, S. Schirra and K. Maksymski (Eds.). *New prospects and perspectives for educating language mediators* (pp. 197-224). Tubingen: Gunter Narr.
- Ko, L. (2008). Teaching Interpreting by Distance Mode: An Empirical Study. *Meta: Translators' Journal*, 53 (4), 814-840.
- Kochubey, O. (2013). Zahalni psykholohichni zasady usnoi perekkladatskoi diialnosti u protsesi pidhotovky studentiv-filolohiv [General psychological principles of oral translation activity in the process of training students of philology]. *Naukovi zapysky Natsionalnoho universytetu "Ostrozka akademiia"*. *Psykholohiia i pedahohika*, 24, 62-66.
- Kurematsu, A. and Morimoto, T. (1996). *Automatic Speech Translation: Fundamental Technology for Future Cross-Language Communications*. Amsterdam: OPA.
- Mas-Jones, E. (2016). Developments in Interpreting Technologies. *MultiLingual*, January/February, 26-29.
- Mellinger, C. (2019). Computer-Assisted Interpreting Technologies and Interpreter Cognition: A Product and Process-Oriented Perspective. *Revista Tradumàtica. Tecnologies de la Traducció*, 17, 33-44. DOI: <https://doi.org/10.5565/rev/tradumatica.228>.
- Mikkelsen, H. (2016). *Introduction to Court Interpreting*. London and New York: Routledge.
- Moser-Mercer, B. (2005). Remote Interpreting: Issues of Multi-Sensory Integration in a Multilingual Task. *Meta: Translators' Journal*, 50 (2), 727-738.
- Moser-Mercer, B. (2011). Remote interpreting. In Y. Gambier and L. van Doorslaer (Eds.). *Handbook of Translation Studies. Volume 2* (pp. 131–134). Amsterdam and Philadelphia: John Benjamins Publishing Company.
- Olkhovska, A. (2010). Psykholohichni osnovy formuvannia hramatychnykh navychok vzhyvannia anhliiskykh artykliv v usnomu perekladi [Psychological bases of forming grammar skills of the English article usage in interpreting]. *Humanizatsiia navchalno-vykhovnoho protsesu*, 5(2), 150–158.

- Olkhovska, A. (2013). Psyholohichni osnovy synkhronnoi perekladatskoi diialnosti yak osnova dlia rozrobky metodyky navchannia [Psychological bases of simultaneous interpreting as a basis for developing the methodology of teaching]. *Vykladannia mov u vyshchyykh navchalnykh zakladakh osvity na suchasnomu etapi. Mizhpredmetni zviazky. Naukovi doslidzhennia. Dosvid. Poshuky*, 22, 186-195.
- Olkhovska, A. (2018). *Theoretical and Methodical Foundations of Developing Professional Competence of MA Students Majoring in Translation and Interpreting by Means of Information and Communication Technologies*. Unpublished DrSc thesis. Khmelnytskyi National University, Ukraine.
- Olvera, M. et al. (2005). Translator Training and Modern Market Demands. *Perspectives: Studies in Translatology*, 13(2), 132-142.
- PACTE (2003). Building a Translation Competence Model. In: Alves, F. (ed.). *Triangulating Translation: Perspectives in Process Oriented Research* (pp. 43-66). Amsterdam: John Benjamins.
- Pielmeier, H. (2020). Computer-aided Interpreting (CAI): The Most Unnoticed Innovation of 2017 [Online]. Available: <http://www.common senseadvisory.com/default.aspx?Contenttype=ArticleDetAD&tabID=63&Aid=48510&moduleId=390>. Accessed on: June 20.
- Pöschhacker, F. (2015). Evolution of interpreting research. In H. Mikkelsen and R. Jourdenais (Eds.), *The Routledge Handbook of Interpreting* (pp. 62-76). London and New York: Routledge.
- Pym, A. (2003). Redefining translation competence in an electronic age. In defence of a minimalist approach. *Meta*, 48(4), 481-497.
- Pym, A. (2013). Translation skill-sets in a machine-translation age. *Meta*, 58(3), 487-503.
- Sandrelli, A. (2015). Becoming an interpreter: The role of computer technology. *MonTI, Special Issue 2*, 111-138.
- Sandrelli, A. and Jerez, J. (2007). The Impact of Information and Communication Technology on Interpreter Training. *The Interpreter and Translator Trainer*, 1(2), 269-303. DOI:10.1080/1750399x.2007.10798761.
- Sanz, J. (1930). The work and skills of parliamentary interpreters. *Career Guidance Annals*, 4, 303-18.
- Schlesinger, M. (2000). Interpreting as a Cognitive Process: How can we know what really happens? In M. Schlesinger (Ed.). *Tapping and Mapping the Processes of Translation and Interpreting: Outlooks of Empirical Research* (pp. 3-15). Amsterdam and Philadelphia: John Benjamins Publishing Company.
- Silva, C. (2014). When Technology Meets Simultaneous Interpreting: A Glimpse into the World of Webcast Interpreting. *The ATA Chronicle*, April, 16-18 [Online]. Available: [https://www.ata-chronicle.online/wp-content/uploads/4304\\_17\\_silva.pdf](https://www.ata-chronicle.online/wp-content/uploads/4304_17_silva.pdf).
- Simkova, I. (2015). Psyholinhvistychni ta psyholohichni osnovy rozrobky metodyky navchannia usnogo perekladu z arkusha [Psycholinguistic and psychological bases

- of development of methods of teaching sight interpreting]. *Visnyk KhNU im. V. N. Karazina. Seria Inozemna Filologia. Metodyka vykladannia inozemnykh mov*, 82, 40-46.
- Wang, X. and Wang, C. (2019). Can Computer-assisted Interpreting Tools Assist Interpreting? *Transletters. International Journal of Translation and Interpreting*, 3, 109-139.
- Wilcox, S. and Shaffer, B. (2005). Towards a cognitive model of interpreting. In T. Janzen (Ed.). *Topics in Signed Language Interpreting* (pp. 27-50). Amsterdam and Philadelphia: John Benjamins Publishing Company.
- Xu, M. and Deng, J. (2015). Integrating Information and Communication Technology into Interpreter Training in China: State-of-the-Art and Prospect. *Chinese Journal of Applied Linguistics*, 38(2), 219-233.
- Yunyk, I. (2016). Formuvannia fakhovykh kohnityvnykh umin perekladachiv u protsesi profesiinoi pidhotovky [The development of interpreters' professional cognitive abilities of in professional preparation], Unpublished PhD thesis. M. Drahomanov National Pedagogical University, Kyiv, Ukraine.
- Zinukova, N. (2014). Profesiina pidhotovka perekladachiv u suchasnykh umovakh: vymohy rynku perekladatskykh posluh [Professional training of translators in modern conditions: requirements of the translation services market]. *Visnyk Dnipropetrovskoho universytetu imeni Alfreda Nobelia. Seria: Pedahohika i psykholohiia*, 2 (8), 42-47.

## CHAPTER 8

# THE SYSTEM OF EXERCISES AND TASKS IN TEACHING SPECIALIZED TRANSLATION AND INTERPRETING

Leonid Chernovaty, Natalia Kovalchuk

### **Abstract**

The authors propose a three-component training system for translators and interpreters, based on an analysis of a general system of exercises and tasks. These components are categorised according to the training's objectives. The first category covers skills and sub-skills that do not involve actual translation. The second category provides for the acquisition of automated translation and interpreting actions. The third incorporates translation and interpreting skills based on the first two. The suggested system comprises three subsystems: a preparatory one, for the formation of automated sub-skills, and a third one for developing translation and interpreting skills. The authors provide a list of the required skills and sub-skills at each stage of translation and describe the content of the exercise groups, types and subtypes in each subsystem using liaison interpreting as an example.

**Keywords:** exercises, interpreting, system, tasks, translator training, interpreter training, skills, subskills, subsystem, translation

The focus of this chapter is on the overall framework of exercises and activities designed for teaching both translation and interpreting skills. First, we will present the fundamental principles of the system in question, utilising the concept of specialised equivalent translation. This type of translation is viewed as a comprehensive reproduction of the source text (ST), in contrast to its heterovalent counterpart, where the target text (TT) offers merely a summary of the ST. We then demonstrate how this system can be applied to the teaching of interpreting.

There have been some papers that discuss what exercises and tasks student translators/interpreters should do when they are being trained (Bowker & McBride, 2017; Calvo, 2015; Kenny, 2008; Li, 2017; Motta, 2016; Nebot, 2008). There have also been some books that go into more detail on this topic (Gile, 2009). Despite the clear value of the exercises and tasks outlined in these sources, it appears that they focus more on a list of activities than on a comprehensive, systematic approach. Such an approach would seamlessly integrate these exercises and tasks into the translator training process, providing a solid foundation for developing sets of exercises and

tasks tailored to the specific needs of a particular teacher in a given stage of the training. This approach would also consider the unique characteristics of different educational settings. Therefore, the principles underlying the system of exercises and tasks for training translators and interpreters, whether in general or concerning specific types of translation and interpreting, is an important area for research due to its relevance to both research and training.

Consequently, the aim of this chapter is to present the universal principles of a general system of exercises and tasks for translator and interpreter training, with the intention of providing a solid foundation for developing sets of exercises and tasks for any specific stage of the teaching process. We will also demonstrate how this system can be applied to both translation, and interpreting.

To accomplish this objective, we had to achieve a number of goals: (1) to find out the specifics of translation as an educational target; (2) to establish the skills involved in the translation process; (3) to identify the content of exercises and tasks at each tier (groups, types and subtypes) of the system's hierarchical structure, as well as the relationship between them; (4) to make assumptions concerning the way the suggested system could be used in creating the corresponding sets of exercises and tasks for translator and interpreter training.

## **Methodology**

The overall framework of activities and assignments for translator/interpreter training in our approach is founded on three universal components, which are applicable to any other such framework connected to any kind of translation or interpreting.

The first subsystem is made up of preparatory exercises and tasks that are intended to develop skills and automated subskills necessary for translating and/or interpreting, but which do not involve any of them. Examples of this could be drawing notional schemes of a particular subject area to acquire specialist knowledge, delivering presentations on specific topics for the same purpose, memory training, using ideographic symbols to memorise source text (ST) content, multi-purpose analysis of the ST, monolingual compression of the ST and paraphrasing, and so on.

Exercises designed to develop automated actions involved in the translation/interpreting process are included in the second subsystem. The

transformation of the required operations for the third subsystem into the actions of the students is achieved through the repetition of one or several translation/interpreting actions.

The goal of the latter is to develop translation and interpreting skills in conditions that closely resemble real-life professional situations. Each of the three subsystems has exercises and tasks that are organised hierarchically into groups, types and subtypes. The top-level groups of tasks are intended for the acquisition of relatively sophisticated actions. These incorporate a number of simpler actions that have been automated within the within the next level down. The acquisition of constituent operations is the purpose of the lowest-rank subtypes of exercises.

### **Stages and skills of the translation process**

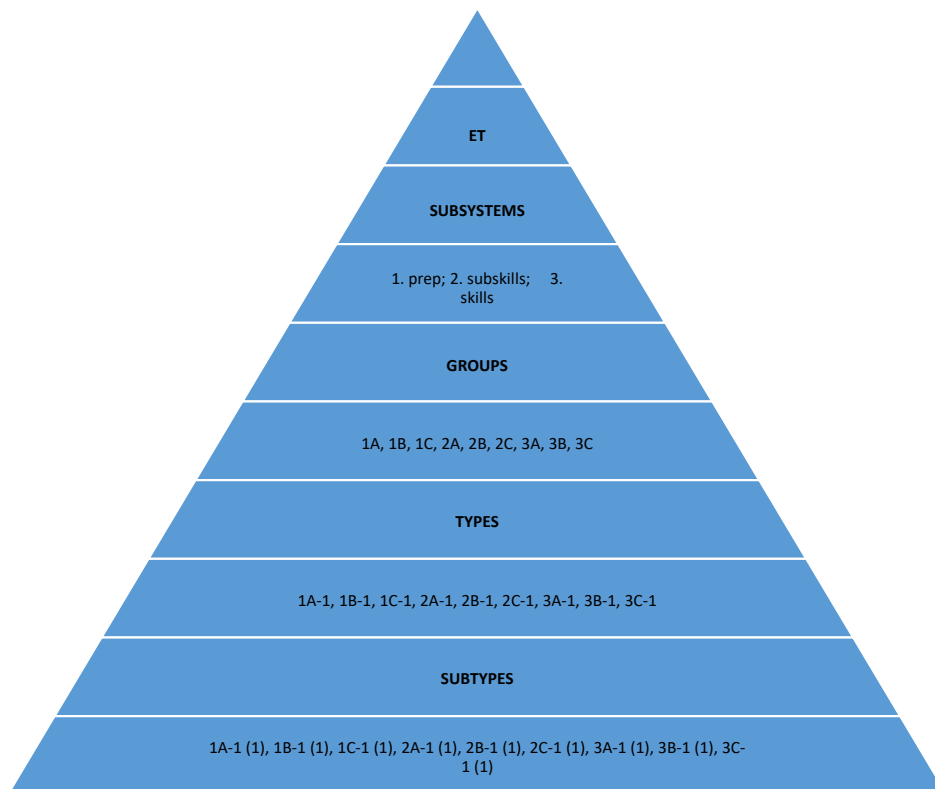
The translation process can be divided into three distinct stages: (1) ST analysis; (2) ST translation; and (3) TT editing. Each stage involves a specific set of skills and sub-skills. According to our research (Chernovaty, 2013), the first stage requires the ability to understand the ST while taking into account the norms of native speakers' linguistic and paralinguistic behaviour; identify the type of ST; analyse factors that may impact the translation (the ST author's intention, circumstances of ST creation and specifics of the target audience); recognise key elements in the ST; identify potential translation problems; assess their possible solutions.

The skills needed for the second stage (generation of the TT) include the ability to guess the meaning of unknown words; search for target language equivalents; coin new terms; use information resources; avoid word-for-word translation; maintain the selected translation strategy. Other skills include preserving the thematic-rhetorical perspective, choosing the appropriate genre and language means, selecting translation techniques, creating multiple TT versions, analysing and screening intermediate TT variants, adapting the TT in consideration the target audience, and solving translation problems.

The final stage demands the following competencies: to amend the TT, to discern and surmount the TT's limitations in accordance with the opted-for translation strategy, to employ the apposite TT layout, to categorise errors and mistakes, to undertake criticism and evaluation of the TT, to utilise information resources.

## Results and Discussion

The hierarchical structure of the general system of exercises and tasks for translator/interpreter training can be represented graphically (see Fig.8.1).



*Fig 8.1. The system of exercises and tasks for teaching equivalent translation. ET – equivalent (written) translation, prep – preparatory exercises and tasks, subskills – exercises for the development of automatized subskills, skills – tasks for the development of translation skills, GROUPS – groups of exercises and tasks, TYPES – types of exercises and tasks, SUBTYPES – subtypes of exercises and tasks, 1A – group A of exercises (tasks) in the preparatory exercises (see Chernovaty & Kovalchuk (2019)).*

This general system can form the basis for developing its subsystems for each type of translation and interpreting, bearing in mind the subskills and skills that comprise them. Below are examples of such subsystems for teaching translation, consecutive and liaison interpreting, as well as sight translation.

*Equivalent translation.* A minimum of six distinct categories are encompassed within the first subsystem, which comprises preparatory exercises and tasks. Group 1A, for example, is intended to improve orientation in the ST. It consists of a series of activities centred on understanding the primary theme of the ST (type 1A-1).

The goal of Group 1B exercises is to develop the psychological mechanisms involved in written translation, such as anticipation. Various exercises can be used to this end, such as filling in the blanks.

The subsequent three sets of activities are intended to enhance the competencies of the ST general analysis necessary at the initial stage of the translation process. The tasks to be completed by Group 1C are varied and include the following: identification of the ST topical and subtopical structure (type 1C-1); examining the ST genre and function (1C-2); considering potential problems in the reception of the non-adapted TT (1C-3); analysing ST linguistic (1C-4), textual and structural specifics (1C-5); ST's translational type (1C-6); ST translation difficulties (1C-7) and the strategies to overcome them, accompanied by appropriate argumentation (type 1C-8).

The second subsystem, which is designed for the development of automated sub-skills, comprises only one group of exercises (2A) for acquiring lexical and grammatical variation subskills. Nevertheless, this group is comprised of a multitude of components and incorporates a minimum of ten distinct exercises. For instance, the type 2A-1, which is used to select the target language lexical equivalents of the source language lexemes, is categorised into two subtypes: 2A-1 (1), which is the selection of monoequivalents, and 2A-1 (2), where a number of polyequivalents are selected.

The 2A-4 type of exercises provides for the subskills related to transformations (both lexical and grammatical). This type falls into subtypes according to the specific subskill the exercise focuses on: antonymic (subtype 2A-3(1)) or descriptive (2A-3(2)) translation, compensation (2A-3(3)), word addition (2A-3(4)) or word deletion (2A-3(5)).

The 2A-5 type of exercise involves automating grammar transformation operations, while its subtypes are distinguished based on the specific subskill the exercise is designed for. Students may therefore carry out word permutation (2A-5(1)), morphological (2A-5(2)) or syntactic substitution

(2A-5(3)) operations. They may also be required to split long ST sentences into shorter TT clauses (2A-5 (4)), or join ST clauses into compound TT sentences (2A-5 (5)).

Six groups of exercises and tasks are incorporated into the third subsystem. For instance, the task of Group 3A is to practise maintaining the chosen translation strategy. The role of Group 3B is to adapt the target text (TT) by considering the nature of the source text (ST) implicatures. Meanwhile, Group 3C's goal is to screen intermediate TT variants. See Chernovaty and Kovalchuk (2019) for details.

Group 3D tasks include several types. These are where students learn to overcome ST interference. For instance, students learn how to avoid linguistic excess in ST (3D-1 exercises), maintain key ST information in TT (3D-2), and avoid unnatural word-for-word translation (3D-3).

Group 3E aims to improve TT design skills by integrating constituents related to conforming to target language norms, such as spelling, collocations and conventions of specific text types. The 3F group of exercises is meant for the acquisition of TT editing skills which are developed in various types of exercises.

*Sight translation.* As a type of interpreting, SiT naturally includes skills common to all interpreting types. These include a selective strategy for perceiving the ST (recognising the main information and its semantic anchors based on segmentation, probabilistic prediction, and contextual guessing). Other skills involve the ability to retain semantic blocks of the ST and the logical connections between them in memory, based on memorisation and compression skills, as well as the capacity to search for and make quick translation decisions under extreme time constraints. The latter requires the ability to solve non-stereotypical lexical, phraseological and other problems, based on skills in lexical and syntactic variation.

The ability to synchronise reading and speaking relies on the simultaneous performance of the aforementioned types. The capacity to deviate from the ST) and avoid excessive literalism in translation hinges on the application of lexical and syntactic variation. Eliminating the linguistic redundancy of the ST while retaining the main information in the TT is crucial for all types of interpreting and hinges on the text compression skill.

The ability to generate TT through loud and smooth speech, without unmotivated pauses or repetitions, and with a normative rhythmic and

intonation pattern, relies on relevant skills such as diction and correct breathing. The proficiency to increase the speaking rate during the TT generation hinges on the skill of fluent interpreting.

Skills specific to SiT include the ability to perceive the meaning of ST while reading. This is ensured by the ability to rapidly recognise syntactic structures and semantic anchors, as well as by ST segmentation. Other strategies include skimming and scanning, which broaden the scope of ST perception. These strategies also help to reduce the number of eye fixations on a line. Overcoming target language interference and avoiding excessive literalism relies on the use of transformation strategies, as well as lexical and semantic variation.

Taking into account the subsystems discussed earlier (preparatory, skill-building and skill development), we can propose a subsystem of exercises for teaching SiT based on the above list of skills and abilities.

The first subsystem, SiT1, comprises a series of preparatory exercises. In particular, SiT1a is a group of exercises designed to develop the ability to recognise ST language markers. This group includes several types of exercises for developing the ability to recognise ST syntactic structures (SiT1a1), as well as words and phrases (SiT1a2) without the involvement of a speech-motor analyser. There is also a group of exercises (SiT1a3) for developing the skills needed to segment ST in order to identify units of orientation within it.

The following groups in the first subsystem each have their own purpose: SiT1b: to develop the ability to recognise the ST semantic markers; SiT1c: to enhance the ability to format external speech; SiT1d: to strengthen the psychological mechanisms involved in silent reading; SiT1e: to advance the cognitive processes underlying all types of interpreting.

The second subsystem, SiT2, comprises the following three groups: SiT2a (developing the ability to switch between languages); SiT2b (combining lexical and syntactic variation in speech with prosody); and SiT2c (transfer patterns at different levels). The purpose of SiT2d is to improve speech presentation skills when spoken to an audience. SiT2e, meanwhile, has been developed to enhance fluency skills when ST is perceived through the visual channel and TT is generated at the same time.

The third subsystem (SiT3) is designed to develop sight translation skills. It includes groups of exercises, such as SiT3a, which focuses on

synchronising the perception of the ST meaning when reading it silently with the generation of the TT aloud. SiT3b focuses on developing the capacity to search for and make swift translation decisions under significant time constraints while reading and speaking simultaneously. SiT3c aims to enhance proficiency in overcoming interlanguage interference and eliminating linguistic redundancy while retaining the core information in the TT. SiT3d addresses the ability to avoid literalism, while SiT3e aims to develop normative speaking skills.

*Consecutive interpreting (CI).* CI requires the ability to synchronise two different types of speech activity at each stage of the process: listening and writing when perceiving the ST, and reading and speaking when generating the TT. Other CI skills include the capacity to capture the main content of the ST in taking notes during the perception process, and the ability to deliver the TT simultaneously with reading mainly ideographic notes.

CI skills include the ability to actively search for the main semantic components in the ST in the context of its one-time perception, relying on image memory rather than verbal memory. The ability to take notes during the auditory perception of the TT is a notable difference between CI and other types of interpreting.

The first subsystem of exercises and tasks for teaching CI includes the following groups: CI 1A: learning note-taking; CI 1B: developing ST information processing skills; CI 1C: fostering psychological mechanisms important for CI, such as memory, probability prediction and synchronisation of two types of speech activity when implemented simultaneously; CI 1D: improving the quality of students' speech.

The exercises and tasks of the second subsystem include the following groups: CI 2A: for developing skills in lexical-syntactic and prosodic variation; CI 2B: for promoting transfer patterns; CI 2C: for improving students' speech production skills; CI 2D: for enhancing code-switching skills; and CI 2E: for advancing fluent interpreting.

The third subsystem (for the development of skills) includes tasks for the holistic implementation of TS in conditions close to real life (a simulated conference speech). All tasks are performed at the level of text fragments, but attention is focused on certain aspects of translation.

The purpose of Task Group CI 3A is twofold: to promote the synchronisation of the ST perception through the auditory channel and the

note-taking, and to synchronise the visual perception of ideographic notes and the TT generation. In group CI 3B tasks, the teacher intentionally creates translation problems in the ST (or in its perception), focusing on making prompt translation decisions while performing another activity, such as reading one's own notes. The task of group CI 3C is designed to develop the ability to overcome interference from the formal features of the ST. To this end, it is saturated with relevant elements. Finally, group CI 3D provides for the comprehensive development of students' speaking skills in the context of the simultaneous reading of notes and the making of translation decisions.

The types and kinds of tasks in all these groups may differ according to various criteria, such as students' preparedness (with or without prior familiarity with the ST content), time constraints, the direction of translation (one-way or two-way), the ST level (paragraph, microtext or text) and the nature of ST delivery (audio recording or teacher-read text).

*Liaison interpreting:* This type of interpreting generally requires the same skills and abilities as consecutive interpreting, except for those related to note-taking. Consequently, the system of exercises is similar in certain respects.

The first subsystem, preparatory exercises, contains at least four groups of exercises and tasks, which can be subdivided further into types and kinds. For instance, group LI 1A aims to develop the ability to perceive and orientate oneself within ST and includes two types of exercises. LI 1A-1, designed to recognise linguistic markers of ST, has two sub-types: LI 1A-1(1) develops the skill of segmenting ST and LI 1A-1(2) – the capacity to identify keywords. In LI 1A-2 tasks, students learn to recognise semantic markers of ST. In particular, LI 1A-2(1) exercises enable students to recognise the main information, while LI 1A-2(2) tasks develop the skill of identifying the ST main points.

The LI 1B exercises improve psychological mechanisms underlying general interpreting skills. For instance, LI 1B-1 exercises, designed to develop memory, may comprise various types. For example, LI 1B-1(1) involves retaining precise information; LI 1B-1(2) focuses on memorising semantic blocks in the ST; and LI 1B-1(3) concerns memorising the logical connections between these blocks. Exercises of 1B-2 type improve the probability prediction mechanism, for which several types of exercises are used: LI 1B-2(1) involves filling in gaps at sentence level and LI 1B-2(2) concerns note-taking at paragraph level. The purpose of LI 1B-3 type exercise

is to develop contextual awareness. This is achieved through various kinds of exercises, such as guessing the meaning of unfamiliar words while reading (LI 1B-3(1)) or listening (LI 1B-3(2)).

As mentioned earlier, the exercises of the second subsystem are designed to develop sub-skills, i.e. the automated components of the interpreting process.

Group LI 2A, in particular, includes exercises for developing skills in lexical, syntactic and prosodic variation. It is divided into at least two types: solving non-stereotypical lexical and phraseological problems under time constraints (LI 2A-1), and applying translation transformations (LI 2A-2).

The aim of LI 2B exercises is to develop transfer patterns, i.e. configurations of neural connections with the correct structure to help solve standard translation problems. These connections enable the mastery of several hundred of the most commonly used lexical and phraseological equivalents in a specific area, facilitating a smooth transition from the syntactic structures of the source language to those of the target language. These skills significantly reduce the amount of operational memory required by a translator, freeing up more time to focus on more complex aspects of interpreting.

In terms of nomenclature, the LI-2C group of exercises (designed to develop externalised speaking skills in the TT generation) coincides with the LI-1D group in the first subsystem. As previously mentioned, the difference between the LI 2C group of exercises and similar exercises in the LI 1G group is that all exercises in the LI 2C group involve translation.

The LI-2D group is designed to improve code switching skills. This ability is crucial in liaison interpreting, as it is the only its type that requires frequent and rapid changes in directionality, necessitating the development of an automatic proficiency to ensure the quality of the TT remains unaffected.

Another group of exercises (LI 2E) aims to develop interpreting speed. The dynamics and unpredictable changes in the directionality of liaison interpreting, which are associated with the individual psychological characteristics of those taking part in the communication, make this ability essential for ensuring the quality of the negotiation.

The third subsystem integrates all the skills developed in the first two into a single translation act. Here, we find the tasks that aim to develop the

ability to overcome interference from the form of the target language (group LI 3A), based on the skills of lexical and syntactic variation. Group LI 3B is designed to improve the ability to make prompt translation decisions within a limited time. The aim of LI 3C group is to develop the complex skill of speaking in a way that is close to real-life conditions.

## **Conclusion**

The proposed system of exercises and tasks fulfils all the criteria for an effective system. Firstly, it is holistic, in that its properties cannot be reduced to the sum of those of its components; rather, the properties of each component depend on its place in the system and its function. Secondly, it meets the structural requirements, as it has a clear and precise structure, ensuring the system's interdependence with the environment. In other words, it develops and manifests its properties in interaction with the current translator training requirements. The system also meets the criteria for hierarchy since its levels are subsystems in relation to higher levels and systems in relation to lower tiers.

This system of exercises and tasks meets the multiplicity requirement by allowing different models to be constructed for teaching various types of translation and interpreting in different educational settings. Such models cover only one aspect of the system. Meeting this requirement also provides dynamism and openness to the system, enabling it (and its subsystems) to adapt to changes in social demand by easily integrating new subsystems designed to meet said demand.

As mentioned earlier, the main purpose of the system of exercises and tasks is to provide a scientifically sound basis for developing complexes of exercises and tasks for specific purposes. Such complexes are regarded as the implementation of a system (or subsystem) of exercises relating to a specific area or topic. Examples may include 'A complex of exercises and tasks for teaching translation in the field of intellectual property' or 'A complex of exercises and tasks for teaching consecutive interpreting in business finance'.

To accomplish this, it is first necessary to compile a catalogue of the particular types of translation and interpreting skills and subskills, and then to specify the systems of exercises and tasks for teaching them. The first stage in developing these systems is to establish their general principles. This is followed by creating a model and compiling sets of exercises and tasks

that take into account the characteristics of a specific type of interpreting or translation, as well as the stage of learning. Further research could focus on solving these tasks.

The preparation of this chapter was funded by the EU Next Generation EU through the Recovery and Resilience Plan for Slovakia under project No. 09I03-03-V01-00148.

### References:

- Bowker, L. & McBride, Ch. (2017). Précis-writing as a form of speed training for translation students. *The Interpreter and Translator Training*, 11 (4), 259-279. Retrieved January 22. 2019, from <https://doi.org/10.1080/1750399X.2017.1359758>
- Calvo, E. (2015). Scaffold olding translation skills through situated translating approaches: progressive and refl exive methods. *The Interpreter and Translator Training*, 9 (3), 306-322. Retrieved January 22. 2019, from <https://doi.org/10.1080/1750399X.2015.1103107>
- Chernovaty, L.M. (2013). *Metodyka vykladannia perekladu yak spetsialnosti [Methods of University-level Translator and Interpreter Training]*. Vinnytsia: Nova Knyha. 183
- Chernovaty, L.M. (2018). Systema vprav i zavdan yak katehoriia metodyky navchannia perekladu [System of exercises and tasks as a category of translator training methodology]. *Inozemni movy*, 1, 19-26.
- Chernovaty, L.M. & Kovalchuk, N.M. (2019). Teaching non-fiction translation: the system of exercises and tasks, *Advanced Education*, 12, 5-11.
- Gile, D. (2009). *Basic Concepts and Models for Interpreter and Translator Training*. Amsterdam/Philadelphia: John Benjamins.
- Kenny, M.A. (2008). Discussion, Cooperation, Collaboration. The Impact of Task Structure on Student Interaction in a Web-based Translation Exercise Module. *The Interpreter and Translator Training*, 2 (2), 139-164. Published online: 12 Feb 2014. Retrieved January 23. 2019, from <https://doi.org/10.1080/1750399X.2008.10798771>
- Li, L. (2017). Training undergraduate translators: a consciousness-raising approach. *The Interpreter and Translator Training*, 11 (4), 245-258. Published online: 31 July 2017. Retrieved January 23. 2019, from <https://doi.org/10.1080/1750399X.2017.1359757>
- Monashnenko, A.M. (2015). Obhruntuvannia systemy vprav dlia navchannia maibutnikh fi lolohiv dvostoronnioho perekladu v ahrarnii haluzi [Substantiation of the system of exercises for teaching bilateral translation in the sphere of agriculture to future philologists]. *Pedahohica formuvannia tvorchoi osobystosti u vyshchii i zahalnoosvitnii shkolakh*, 44 (97), 213-219.
- Motta, M. (2016). A blended learning environment based on the principles of deliberate practice for the acquisition of interpreting skills. *The Interpreter and Translator*

- Training*, 10(1), 133-149. Published online: 14 May 2016. Retrieved January 23, 2019, from <https://doi.org/10.1080/1750399X.2016.1154347>
- Nebot, E.M. (2008). Corpus-based Activities in Legal Translator Training. *The Interpreter and Translator Training*, 2 (2), 221-252. Published online: 12 Feb 2014. Retrieved January 23, 2019, from <https://doi.org/10.1080/1750399X.2008.10798775>
- Pasichnyk, T.D. (2010). Pidsystema vprav dlia navchannya studentiv movnykh vyshchykh navchalnykh zakladiv pysemnoho perekladu komerciinykh lystiv (Subsystem of exercises to teach business correspondence translation to students majoring in foreign languages). *Visnyk Kharkivskoho natsionalnoho universytetu imeni V.N.Karazina. Serii: Romano-hermanska fi lolohiia. Metodyka vykladannia inozemnykh mov*, 62, 190-200.
- Rubinstein, S.L. (1989). *Osnovy Obshchei Psikhologii (Basics of General Psychology)*. Moscow: Pedagogica.

# CHAPTER 9

## ORGANIZATIONAL AND METHODOLOGICAL ASPECTS OF TRANSLATION INTERNSHIP

Oleksandr Bondarenko, Kateryna Bondarenko

### **Abstract**

This study focuses on the importance of translation internships for training translators and their alignment with industry requirements. It aims to identify and address organizational and methodological facets affecting the productivity of this interaction between universities and industry. The study involves comparing translation internship guidelines from Ukrainian universities, describing internship hosts, industry internship supervisor requirements, evaluation from both industry and university supervisors, and feedback from host organizations to universities. The research also looks at a specific company's (Translatel Ltd) experience in looking to propose a guideline for internships and ways to enhance collaboration between universities and internship host companies. The study finds that the feedback from employers in the language services market is not always positive and is not always appreciated by universities. The type of host institutions for internships varies, and the requirements for host institutions are broad, leading to challenges in defining consistent criteria. Recommendations are proposed to facilitate feedback mechanisms from host organisations. A criteria-based approach for selecting internship hosting institutions, particularly "full-cycle" linguistic companies with experienced linguists, is suggested. Given the current state of the Ukrainian translation industry, distance-learning internships with such companies may be a viable option. The study highlights the importance of universities considering industry interests, acknowledging the evolving market needs, and fostering productive interactions, including joint projects and valuable internships. A systematic approach to internships with mandatory feedback from language services professionals is believed to enhance the competitiveness of translation professionals in their future careers.

Translation internships are one of the cornerstones of translator training, and with proper feedback, they serve as a potent tool for bringing translation education closer to the requirements of the language services market (Garcés, 2011; Garcés, Toudic, 2015).

In contrast to other aspects of training for interpreters and translators), the requirements for an internship at work are described in detail in the guidelines for internships in a significant number of specialized departments. At the same time, we note that the vast majority of these guidelines are

student-centric and too academic, while they almost do not take into account the interests of the employers and companies where students and potential employees actually do their internships.

Our study aims to establish the place and role of translation internship in the training of interpreters and translators, and to identify ways to overcome organizational and methodological shortcomings that affect the effectiveness of this interaction tool. The goal is achieved through a number of tasks: comparing the requirements for translation internship outlined in the guidelines for internship at Ukrainian universities through the description and typology of internship hosts, requirements for industry internship supervisors at host companies, internship evaluation of the industry and university supervisors, and feedback of host organisations to universities. In addition, we will try to outline a roadmap based on the experience of the translation and localization company Translatel Ltd. with a guideline for conducting internships as well as proposals for effective interaction between universities and internship host companies.

According to both a survey and a series of interviews with translators of the Ukrainian Association of Translators and Interpreters (UATI) with the support of the Social Audit Centre, conducted from 22.04.2020 to 31.08.2020, more than half of Ukrainian translators hold a degree in translation or philology (Ukrainian Association of Translators and Interpreters, 2020). Therefore, translation internships (as an essential part of their curriculum) can be considered the first step toward the real world of language services. Unfortunately, the internship feedback from employers—linguistic companies in Ukraine – who, according to UATI, employ more than 20% of all interviewed interpreters and translators, is not always positive. Of course, it should be taken into account that about 80% of the translators surveyed by the Ukrainian Association of Translators and Interpreters are freelancers registered as private entrepreneurs (Ukrainian Association of Translators and Interpreters, 2020), it is hardly possible to consider them as internship hosts, both given the legal requirements and the lack of time, opportunities and motivation for further employment of future graduates.

It should be noted that According to our observations, only 20-30% of internships in the field are hosted by translation companies (agencies). In a given year, the remainder are hosted at travel agencies (in the pre-pandemic period), archives, national and international institutions, universities, etc. The young translators, of course, may continue to work in these spheres after graduation, but the lack of a hosting internship supervisor who could guide

the intern and provide regular feedback on their progress is a significant obstacle to the student's professional growth.

Let's have a deeper look at the requirements for host institutions provided by the Order "On the Approval of Regulations on the internship of higher education students of Ukraine N 93 dated 08.04.93 (Amended in accordance with the Order of the Ministry of Education (vd941220 vn351 dated 20.12.94)). The students should be hosted at institutions that meet the requirements of the program. If student loans are held by the state, higher education institutions are obliged to offer the students a list of host institutions (governmental organisations, universities, national and international institutions). If the loans are not state-funded, students are free to either choose among the list provided by the university or to choose the hosting institution that meets the curriculum requirements. The latter should sign an internship contract negotiated with all the interested parties (Order "On approval of the Regulations on the practice of students of higher educational institutions of Ukraine N 93 from 08.04.93 (as amended in accordance with the Order of the Ministry of Education and Science of Ukraine)", 1993).

As we can see, according to the Order, host institutions must meet the requirements of the programme, but it is obvious that it is impossible to define the same requirements for such different hosts (from archives and museums to international call centres). In the internship guidelines we have analysed, the authors either cite the Order or take into consideration the specific characteristics of the region. Thus, in the Vasyl' Stus Donetsk National University, the internship hosting organisations are defined as enterprises, companies, or institutions that meet the requirements of the program and have agreements with the department, the Faculty of Economics, or the University (Vasyl' Stus Donetsk National University, 2016). At Bila Tserkva National Agrarian University (Department of Romance and Germanic Philology and Translation) students are hosted in companies that meet the requirements determined by the institution of higher education and regional stakeholders. These hosts are translation companies, travel agencies, departments of international relations, organizations, enterprises, foreign companies of the agrarian sector and their representative offices in Ukraine, secondary education institutions, media, and the publishing industry. The applicants for industrial (translation) internships are allocated according to the availability of hosting institutions and the number of vacancies in each of them and are formalized by order of the university (Bila Tserkva National

Agrarian University, 2021). At the Educational and Research Institute of Foreign Philology of Zhytomyr Ivan Franko State University, students perform their internship at hosting institutions that ensure the implementation of the programme for the relevant educational and qualification levels. The internship is formalized by direct contracts with enterprises, organizations, and institutions regardless of their organizational and legal forms and forms of ownership (Zhytomyr Ivan Franko State University, 2021).

The training of language professionals is largely government-funded, but also can be funded privately. Most universities still take responsibility for providing the list of internship hosting organizations for all the categories. Some universities claim that if the training is funded by individuals, the place of internship should also be found by these individuals (Bila Tserkva National Agrarian University, 2021). At the same time, the process of selecting and approving the place of internship suggested by the student can be quite bureaucratic.

The students' free choice of internship hosting institution is considered optional in all the analysed recommendations and, therefore, does not encourage the student to independently search for a potential place of employment. Encouragement to use the options proposed by the department together with a rather cautious attitude towards the student's independent choice is contained in a significant number of guidelines for internships: "Students can independently choose the internship hosting institution. But they must notify the management of the department about it..." (Vasyl' Stus Donetsk National University, 2016, p. 4); "applicants may independently, with the permission of the Department of Romance and Germanic Philology and Translation, determine the internship hosting institution for themselves, providing the necessary documents" (Bila Tserkva National Agrarian University, 2021, p. 11); "With the permission of the department, students may independently determine the internship hosting institution and propose it for approval by the department. In this case, the student provides a letter of assurance from the company, confirming the availability of a location for the translation internship, which specifies the job duties and department proposed for the translation internship, as well as the name of the industry internship supervisor. The letter of guarantee shall be printed on the letterhead of the company or organisation that provides a place for the student(s)' internship and shall be signed by the head of the organisation. The university, represented by the rector, signs a contract for translation internship with the

hosting institutions (enterprises, organizations, structures of any form of ownership)” (Zhytomyr Ivan Franko State University, 2021, p. 8).

As evident, the selection of internship hosts primarily lies with the university’s internship supervisors, despite a considerable number of translation students covering their own tuition costs, while students’ independent choice of future internship location (and potentially – future employment) requires considerable bureaucracy on both the university and the employer’s part. At the same time, in our opinion, the over-expansion of internship options could also be considered misguided, given that small enterprises with a few employees are unlikely to have the resources to sufficiently supervise the trainee. Another cause for concern is internship hosting companies which may not have a professional linguist who can share his/her experience with the trainee, provide professional feedback to the relevant department, etc. It is not uncommon in such cases for a student to simply be used to carry out routine translations for free. In our opinion, maximum simplification of bureaucratic procedures together with a clear definition of requirements for companies (most importantly, having an internship supervisor in the company whose job includes translation or translation project management) would significantly improve the situation.

Given the above considerations, the content of the internship, the responsibilities of all the parties, and its supervision are also extremely complex and comprehensive. In some cases, the content of the internship does not define all the tasks to be carried out by the intern, and sometimes the content and tasks are not differentiated. There are also big questions about the field of translation in which the students will be working.

Thus, most Ukrainian Higher education institutions presumably train translators and interpreters: it is assumed that they can do both types of work. However, the possibility of interpreter internship is not always described in the guidelines. This is partly due to the nature of the language services market, in which the number of interpreters is around 20% (Ukrainian Association of Translators and Interpreters, 2020). Professional interpreters are predominantly self-employed individuals, and therefore not the best option as internship hosts since they have no clear motivation to train students systematically and free of charge. One-off examples of mentoring are unfortunately sporadic and cannot be considered a reliable tool for acquiring skills and acclimatising to the demands of the professional world while enjoying the necessary support.

The specific nature of companies providing interpretation services stems from the nature of their business. In particular, its irregular or at least variable demand compared to companies providing translation or localisation services. Frequent organisational time pressure, which may include late submission of supporting materials by clients, or even their complete absence, etc. may also influence the interpreters' work, as well as the process of hosting interns. Any work done by interns for customer consumption ought to be heavily supervised, but in interpreting this cannot be the case, as, once the interpreter turns on the microphone, no one can check the work before it reaches the client. Under such circumstances, it is perhaps tricky to speak of consistent mentoring of the intern.

Another factor is the special structure of a company that constantly provides interpretation services. Even in companies that deliver only interpreting services, there are rather few in-house interpreters (the vast majority are freelancers who occasionally or permanently work with an agency). Given the dynamic and often unpredictable workload, coupled with the level of responsibility to the client, company executives prefer to work with experienced translators, while interns often simply observe the process or perform miscellaneous tasks linked to interpreting project management (testing the software, etc.). It is not uncommon for interns in a non-linguistic company to be confronted with a situation where he/she has to carry out all types of tasks related to the specific nature of the establishment: from translating documentation to making telephone calls (where interpreting is expected, in conditions not suitable for it: without meeting the minimum requirements for interpreters and interlocutors: pauses, changing partners, materials provided in advance, etc.).

Certain guidelines classify consecutive interpreting as a form of language-related work when host company production demands it (Bila Tserkva National Agrarian University, 2021). At the same time, it should be noted that compared to translation, where the requirements are clearly defined, no clear requirements and evaluation of interpreting are identified in any of the recommendations. However, the inclusion of telephone calls and tourist guide activities in the guidelines is worrisome because they are clearly beyond the professional scope of an interpreter and should not be considered part of the job, even when required for work-related reasons. The host should agree in advance that working conditions will at least be in line with those recommended by the university, but also with requirements for professional interpreters – who usually do not perform these miscellaneous tasks.

The extensive requirements for internship suggest that this type of activity is seen as a priority by Ukrainian universities, which, in principle, does not contradict general trends in the language services market. Since, as mentioned above, there are no common requirements for internship hosting institutions yet, the activities of interns still need to be assessed. For the most part, the requirements for translation activity correlate with those used at universities, but often contradict those used by industry.

The vast majority of the guidelines require the creation of a (terminological) glossary. These can be special terms that correlate with the majors of a hosting institution (Bila Tserkva National Agrarian University, 2021), special terms extracted from translated texts (100 terms and terminological sets) arranged in alphabetical order with the indication of the sources (Martynyuk, Mykhalshuk, 2021), vocabulary (100 lexical units), or creating termbases in the SDL Multiterm 2011 software environment (Volodymyr Vynnychenko Central Ukrainian State Pedagogical University, 2020). It still should be mentioned that since translation internships typically involve collaboration with commercial organisations, academic licences for CAT-tools cannot be used to process the data.

Within the reviewed guidelines, it is consistently mentioned that interns should receive a comprehensive introduction to the agency. This includes an in-depth briefing on agency policies, services, objectives, the workplace environment, the technology and office equipment at their disposal, as well as the specific duties and responsibilities of translators. (Bila Tserkva National Agrarian University, 2021).

It should be noted that in some universities, translation internship is also accompanied by additional tasks, which involve, for example, performing a written translation and creating a terminological dictionary based on materials provided by university internship supervisors (Zhytomyr Ivan Franko State University, 2021). We believe that the additional tasks for interns are excessive, especially if the chosen internship hosting institution does meet the requirements – systematically loads the student with work, controls and evaluates the process, etc.

Another problem is the definition of workloads, which differ strikingly from industry guidelines such as those for written translation from foreign languages into the native language of newspaper information, socio-political, economic and scientific, and technical texts at a speed of 1500-2000 print characters in 1.2 hours, or translation from native language to foreign

language of the same type of texts at a speed of 1200-1500 print characters in 1.2 hours (Volodymyr Vynnychenko Central Ukrainian State Pedagogical University, 2020, p. 11). The given volumes may puzzle representatives of language services companies because, in the industry, it is common to count effective (weighted) words, not printed characters; recalculation from printed characters suggests that the given figures exceed the general industry standards for novices, and therefore cannot be recommended to interns.

As a rule, a translation internship is supervised by two professionals – a representative of the university and a representative of the internship hosting institution. Whereas for a university teacher the tasks set, the system, and methodology of their evaluation has been developed over the years, for an internship supervisor, the audit and evaluation activities may be not a usual task (in case the internship supervisor is not a quality manager or at least a full-time linguist) or (even more often) the evaluation metrics may differ significantly from those accepted in the linguistic services industry. Consequently, we believe that the evaluation of the interns' performance should be adapted as much as possible to the criteria used by the industry.

Some of the guidelines provide rather general requirements for the industry internship supervisor, in particular, to specify the level of translation skills of the student, the volume and content of work, attitude to work, responsibility for the work done, observance of labour protection and safety rules, and in-team relations. Assessment of linguistic and translation competence-proper also involves quite a general assessment of the skills and abilities of consecutive interpretation and written translation, assessment of expedient use of terms in translation, business correspondence skills, etc.

In other recommendations, the requirements are more extensive, but mainly involve orientation issues: accepting applicants for internships according to the schedule, creating the necessary conditions for interns, outlining work requirements so as not to allow their use in the positions and duties not corresponding to the internship curriculum (Bila Tserkva National Agrarian University, 2021), acquainting students with signing in and out, and with a schedule of individual supervision (National University of "Kyiv-Mohyla" Academy, 2017). The responsibilities of supervisors also include access to classrooms, libraries, and the technical and other references necessary for the internship programme, which is not always possible, especially in non-linguistic enterprises (Bila Tserkva National Agrarian University, 2021).

Some recommendations impose rather high demands on students and – indirectly – on industry internship supervisors, who should obviously contribute to the following: “interns should acquire a minimum level of professional skills, and be able to solve problems independently using translation skills: 1. Avoid literal translation, i.e., formal likeness of the original translation, which makes it awkward and often difficult to grasp. 2. Refrain from “loose” translations that result from insufficient understanding or from awkwardness in reproducing the content and stylistic features of the text using the target language. 3. Skilfully handle the issue of “non-equivalence” when translating peculiar grammatical categories, constructions, realia, and idioms. Apply the necessary flexibility in overcoming deadpan, and leave out difficult to translate, yet irrelevant text elements by using descriptive translation tools. 4. To bring underline translation to the level of meaningful adequacy – perfect, finished, and edited, using various forms of qualitative and quantitative transformations of semantic and formal nature: meaning narrowing and expanding, logical expansion and antonymic substitutions, explicative and ellipsis, sentence substitution or splitting, various inter-level restructuring, etc. 5. While analysing the translation performed, find faults – evidence of difficulties and successes in overcoming difficulties. Distinguish successful translation from unsuccessful, justify or reject a particular variant of translation, combining confidence in proper self-criticism of one’s work. 6. Achieve complete mastery of translation skills by integrating previous translation experiences and employing essential tools, without which achieving the level of automatic reproduction of the original text would be impossible.” (Volodymyr Vynnychenko Central Ukrainian State Pedagogical University, 2020, p. 9).

It seems to us that vague definitions like “the level of automated reproduction of the original”, “formal likeness to the original of the completed translation, which makes it awkward and often difficult to perceive”, “creative overcoming of the phenomenon of “non-equivalence”, “awkwardness in reproducing and stylistic features of the text using the target language”, “finding faults – evidence of difficulties and creative success in overcoming difficulties”, etc. somewhat complicate both the process of acquiring the mentioned competencies. Moreover, we think that “acquiring minimum skills” should be the aim of relevant courses, and that there are university trainers who should impart such skills. At the same time, as we can see, industry internship supervisors are entrusted with functions that are not inherent, and, moreover, which are excessive to them. These factors

could deter potential internship organizations from accommodating interns, particularly when there is no compensation for internship supervision within a company.

The interns are evaluated differently by employers and university internship supervisors. Some guidelines provide assessment criteria for individual types of linguistic work for university traineeship supervisors. These criteria most often correlate with the evaluation criteria of the respective academic disciplines (aspect, scientific and technical translation, etc.). Some recommendations as to criteria are adequacy (whether the translator has correctly understood the content of the source text and how accurately this content is presented in the text of translation); absence of errors in the transfer of non-speech information (figures, diagrams, etc.); observance of appropriate style by the translator, and lexical and grammatical correctness of the text of translation (Bila Tserkva National Agrarian University, 2021). For other higher education institutions, semantic and communicative integrity of the text; functional and stylistic adequacy; text segmentation into the units of translation; evaluation and selection of language means in the process of translation (with the account of speech systems, language norms, and uses), and the absence of russisms, dialectisms, or tautology are added to the above-mentioned criteria (Martynyuk, Mykhalshuk, 2021).

Recommendations may contain evaluation criteria for certain types of linguistic work, such as termbase maintenance, which implies the ability to identify terms in the original text and select terminological equivalents; the ability to choose and use different types of terminological dictionaries, reference books, encyclopaedias, internet resources, computer programmes for translation memory; competent translation of terminology, abbreviations, shortened words; and the use of descriptive rendering of terms.

A few of the guidelines are focused on adhering to customer requirements, although they are positioned at the end of the requirements list (Volodymyr Vynnychenko Central Ukrainian State Pedagogical University, 2020), which seems completely illogical for the translation industry. Only a few guidelines mention translation competencies and the soft skills which are crucial for modern language companies. We support N. Pavlyuk's opinion that the level of translation competence can be determined only as a result of cooperation between university and company supervisors. Apart from purely linguistic skills, a student should demonstrate and the internship supervisor should evaluate such qualities as the ability to work, communication skills,

responsibility, organization, observance of the rules of subordination, etc. A very promising model involves, in addition to the reports traditionally provided by the student to the relevant department after the internship, an interview with the student, where the instructor suggests to the student situations in which the interpreter or translator may find himself/herself and asks him/her to answer how he/she will act (National University of “Kyiv-Mohyla” Academy, 2017).

As we can see, the criteria for evaluating translation internships are quite different. This can be explained by the specificity of the stakeholders, representatives of companies, etc. Another explanation is the attempt to adapt the requirements to all possible internship hosting companies, including non-linguistic ones. Neglecting translation competencies is unacceptable because linguistic work now is a team and high-tech activity. We believe that the vagueness of the evaluation criteria and the almost total inconsistency with the evaluation metrics established in the language services industry leads to paradoxically different evaluations of industry and university internship supervisors.

Unlike the perfect, “flawless” realm of academic education, the linguistic product’s quality in the industry must align with actual performance. The issue of evaluating the quality of translation, which is particularly acute when translation students enter the real job market, is quite important. We are convinced that it can be extremely fruitful to coordinate the assessment of students’ competencies when they are “taken care of” by two supervisors from different worlds.

Next, let’s take a closer look at the problem of translation quality assessment from the perspective of didactics and the industry. As defined by the 2017 European Classification of Occupations and Professions (ESCO), ensuring translation quality in line with industry standards is key to the sustainable development of both the individual language professional and the company operating in the language services market. ISO 17100 and ISO 18587:2017 are considered to be such standards (Technical Committee ISO/TC 37/SC 5 Translation, interpreting and related technology, 2015).

The EN 15038 standard, developed in 2006, famously documented for the first time the nature of the translation process in today’s language services market. In addition to the traditional linguistic component, other components have been added to the document – quality assurance and the audit of the process of creating a linguistic product. It is important for interns

and their supervisors, both in production and at universities, to remember that according to modern standards, not only the translator, is responsible for the quality of the final linguistic product, but also the editor, proofreader, etc.

In ISO 17100, “subject matter awareness” and “translation into the target language with respect to style and the use of appropriate terminology” have been added. The focus on client needs brings the requirements for language providers closer to those of ISO 9001, the general standard for project management. In other words, it makes the field of translation and localisation as pragmatic as possible (Technical Committee ISO/TC 37/SC 5 Translation, interpreting and related technology, 2015). Interestingly, the lack of knowledge of the domain for which they have to translate during their internship is one of the most common complaints of students after the internship, because no algorithms are suggested to students to help them master new domains quickly. Existing textbooks on aspect translation are often modelled on language textbooks, and the first stage involves an introduction to vocabulary (presented, as a rule, alphabetically rather than conceptually). Subsequently, this vocabulary is worked through in monolingual and then bilingual exercises (for translation). As a result, while students can translate a text containing the studied vocabulary, they lack a systematic understanding of the conceptual domain, and will then have problems with texts of the same conceptual domain, but with different terminology. Turning to the ISO 9001 requirements, the client-oriented aspect is almost completely absent in the internship guidelines of Ukrainian universities.

The problem of the different evaluation systems in industry and universities concerns deeper problems – an incomplete understanding of the audit process in the industry, an attempt to develop as comprehensive as possible but, as a result, overly cumbersome and not very applicable error classifications as opposed to simpler but industry-established metrics with proven effectiveness. In contrast, the available academic publications on translation quality cover only a few links in the production chain. For example, there are classifications based on the correlation between the content of the source text and the target text. The idea is that the translation should be evaluated according to how substantially they change the content of the original (insignificantly changing the content of the original; significantly changing the content of the original) and types of errors (word-for-word translation out of context, changing the logical links of the concepts in

the original statement, contextual misunderstanding, etc. (Chernovaty, Ginzburg, 2009). Researchers allocate such criteria as source text to target text equivalence; or lexical, grammatical, and syntactic accuracy (V.N. Karazin Kharkiv National University, 2021). Equally interesting, although still not applied enough for industry business translation, is the concept of Z. Partyko, based on the theory of editing that implies the development of a common methodological framework for assessing the quality of linguistic products, which potentially could relieve the tension between translators and editors. The common denominator is proposed to be the “norms” that the translator and editor must adhere to. These norms include: informational, according to which the amount of new information in the translation may (slightly) exceed that in the source texts; social, meaning that in looking to comply with ethical or aesthetic norms, the translation allows for removal, softening, or transformation following the norms of the target language and target language; compositional (with due respect for genre features in the target language and speech); logical (retaining errors that exist in the source text, but informing the client about them); or psycholinguistic (it is difficult for the translator to understand the meaning of the target language).

As already mentioned, the conceptual difference between academics, who write about translation quality criteria, and industry representatives, who have to define quality to evaluate performance and, ultimately, to make a profit, is that for the latter, the cornerstone remains performance. “Quality assurance (QA)” is quality management, a comprehensive approach that ensures a consistently satisfactory result with an optimum combination of human and technological performance, the optimum ratio of effort put in each step towards the result obtained (Forstner, Lee-Jahnke, Schmitt, 2009). So, as we can see, the goal is a satisfactory result (customer satisfaction). If the proposed error classification for evaluating the quality of the work is too complex, lengthy, or contains contradictory positions, etc., it has no chance in the market of linguistic services. Note that the quality issue (besides the internal audit) is also a question of communication with vendors who want to understand what quality they are paying for. Therefore, linguists on the client side should operate with the same evaluation metrics as their Ukrainian partners.

The above-mentioned productivity in the translation industry may be influenced by: the quality of the source text (errors, ambiguity of terms that require additional consultations and approvals, etc.); cross-references to other

texts (projects); the linguistic and extralinguistic competence of the linguists; the depth of analysis of the translation project; and additional requirements to the text formatting (Technical Committee ISO/TC 37/SC 5 Translation, interpreting and related technology, 2015). There is no single approach to performance analysis within a single translation project. However, the issue of quality (note – to the level desired by the clients) is key, regardless of the conditions under which the work is performed.

Productivity is assured through the systematic implementation of international quality assurance and quality control standards. Such standards capture the current state of the market for language services and ensure the reliability and efficiency of the management system of translation and localisation projects. The most effective ones are 1) ISO 17100 (Translation Services: previous regional standard EN 15038: 2006); 2) ISO 704 (Terminology work: principles and methods); 3) ISO 12616 (Translation-oriented terminology); 4) ISO 30042 (Systems to manage terminology, knowledge, and content: termbase exchange); 5) ISO 21999 (Translation quality assurance and assessment: models and metrics), ISO 18587:2017 Translation services – Post-editing of machine translation output, etc. “LISA QA Metric”, “SAE J2450”, “TAUS DQF”, “MQM”, “QT21”.

According to the “SAE J2450” system, errors are defined as follows: incorrect terms, syntactic errors, concordance errors, spelling errors, punctuation errors, etc. According to “weight”, errors are graded from significant to insignificant.

The “LISA QA Metric” ranks errors as follows: incorrect meaning; accuracy, terminology, style, linguistic and country-specific aspects, etc.

In the “TAUS DQF” metrics, the parameters for evaluating translation quality are accuracy, readability, terminology, genre features, formatting, linguistic and country-specific aspects, and reliability. The system is distinguished by a coherent typology of errors. Indeed, one cannot speak of “accuracy” in the following cases: textual meanings are misinterpreted; technical concepts are unclear; the translation is arbitrary, not conveying specific facts of the original; important elements are omitted; superfluous details are added; part of the text is not translated. Among linguistic mistakes, the authors single out the violation of grammatical and syntactical norms of the target language; violation of punctuation norms of the target language or style settings provided by the client; violation of spelling norms of the target language, etc. Terminological errors are primarily understood as non-compliance with the client’s requirements for project terminology and

asymmetric use of terms. Stylistic (genre) errors include failure to comply with the client's style requirements; stylistic inconsistency with reference materials; unreasonable stylistic (genre) variation within the project; word-for-word translation; failure to comply with syntactic norms of target speech; failure to use set expressions of the target language; unreasonable alterations to the tone of text; and unclear translation.

Among the errors in the process of product localisation, which in the usual terminology for domestic scholars can be called linguistic and country-specific, are the incorrect reproduction of dates, addresses, telephone numbers, measurement systems, cultural realities, etc. for the target country. Separately, we should mention the relatively serious, especially for localisation projects, specific errors that are not related to linguistics, but may affect the results of the internal and external audit. These include format, tag changes, broken (cross-referenced) links, truncated or "overlapping" text, inadequate length of characters, complicated functionality (function and its description (translation) are not consistent with each other), etc.

In the most general way, despite the difference in terms and systematisation, the basic set of errors is only partly correlative. Both universities and industry speak of the need for linguistic, social, linguo-cultural, compositional, logical, and informational norms. At the same time, the errors arising from the disruption of the production cycle, the soft skills whose adequacy ensures effectiveness in the future workplace, are mostly spoken about only by representatives of the business.

The issues of feedback between internship hosting institutions and universities, in general, correlate with the issues of general interaction between business and higher education (Bondarenko, Bondarenko, 2021). If the interaction is systemic, the stakeholders actively collaborate – the results of the internship are directly taken into account when drafting and updating new programs, introducing new disciplines, etc. It should be noted, however, that quite often the complaints and advice of internship hosts are not taken seriously enough by universities, and the feedback system is either formalised, fragmented, or exists only on paper. More often, according to the analysed guidelines, the industry internship supervisor is expected to report on the intern's activities at a particular institution. The supervisor must provide a complete description of the internship: indicate the level of the translation skills of the student, the amount and content of work, attitude to work, responsibility for the work done, observance of health and safety

rules, and relations in the team. Besides this, the supervisor of an internship should check the diary of the intern, make written remarks, and the like (Zhytomyr Ivan Franko State University, 2021). It is important to note that the level of professional knowledge, skills, and abilities should be determined by experienced interpreters working at the enterprise (Bila Tserkva National Agrarian University, 2021), but, as has been repeatedly noted, often such linguists are simply absent at the internship hosting companies. The situation is made even more complicated with the need to assess the “appropriateness of used translation methods” (Zhytomyr Ivan Franko State University, 2021), about which the industry internship supervisors may not be aware at all, since, according to the Ukrainian Translators Association, 50% of those employed in the language services market are not certified translators, and those who are use modern evaluation metrics where no one mentions translation transformations and the like.

Interestingly, while the guidelines provide a form for evaluating a hosting institution (Zhytomyr Ivan Franko State University, 2021), to be completed by the student according to certain criteria, there is no logical feedback scheme for the industry internship supervisors which would allow the effective structuring of responses, the typology of existing problems and the finding of effective solutions. The arbitrary response, available in the format of a few dozen lines to be filled in manually and subsequently signed off by the heads of the institution, is not sufficiently efficient for systematic and fruitful interaction. It may appear interesting to listen to the wishes of the interns and their recommendations for improving their language and speech skills for translation internship, which is to a certain extent correct, but less important than the opinions of potential employers, whose voices and opinions are hardly heard under the weight of the documentation.

Translatel, whose experience in translation internship will be discussed below, has been an internship hosting institution for over 15 years. Translatel has been providing software localisation and technical documentation translation services for more than 20 years and is internationally audited to ISO 17100:2015, which sets standards for both the quality of services in general as well as the translation and localisation processes. The production process is controlled by translation management systems which guarantee that all documentation is stored securely and in an orderly manner. The vast majority of translation and localisation projects are carried out with automated translation programmes such as Trados Studio, MemoQ, Google

Translator Toolkit, Wordfast Pro, Passolo, Idiom, Alchemy Catalyst, Star Transit, Microsoft Localisation Studio, Helium, Novell Localisation Workbench, Dejà Vu, and Across. Finished translations are checked using the automated ApSIC Xbench, and QA Distiller, which can detect flaws in terminology consistency, wording consistency, and other linguistic aspects, thus partially eliminating errors due to human error. The company has implemented a long-term employee competence monitoring system based on the LISA quality assurance system. This system also works partly for interns, as the well-established production cycle makes it possible not only to identify shortcomings in the professional training of already trained specialists but also to suggest specific competence improvement strategies for newcomers.

The company is a consistent partner of more than 20 Ukrainian universities which train translators, both in their daily didactic activities, in particular through the introduction of translation technology in the training of linguists, and direct cooperation with students during training internships. The efficiency of translation internships in the company is 83%, because an overwhelming number of the full-time employees in the company are former students who started their careers with internships in the company.

Consequently, we believe that the experience of the company's internships is quite positive, and that the close relationship with higher education institutions allows them to see both sides of the problem and propose a road map for improving the cooperation.

It is worth noting that an internship in a company is a process that demands the effort and time of the company's employees. For the supervisors from the company – highly qualified professionals – it is paid work, so students have to be pre-screened for internships, saving the company from unnecessary costs.

Internship signing in involves a non-disclosure agreement, as the training is conducted on real projects that, although they haven't been sent to the client, still contain sensitive information. Furthermore, this is a requirement of the ISO 17100 standard to which Translatel is certified. Signing a non-disclosure agreement makes it impossible to distribute the text of a test assignment prerequisite for an internship to other peers. Note that universities often similarly require from students materials from their internship. This problem can be alleviated if students work with didactic (in company terms – long ago translated) materials. However, the problem of intellectual property, including linguistic work, should be taken into consideration.

The second step is to perform a test translation. For this purpose, a database of test translations, regularly given to freelancers to test their competence is used. Of course, the criteria for selecting interns are much lower than those used to select freelancers. The focus of the test is general literacy, the ability to formulate thoughts in translation, and the skills of self-searching for information relevant to the project.

In the third stage, there is an introductory talk with the interns. Students are introduced to the company's standards, the production process, and the translation project management system used in the company (the platform from which linguists receive tasks and where completed projects are uploaded). The interns are given demonstrations on how a specific system/process works. Students have access to the quality assessment model used in the company, its criteria, corporate style guidelines (Style Guide), and corporate training. In addition, at this same stage, the trainees become acquainted with the linguistic extra lingual specifics of long-term projects (project-specific style guidelines, which, in contrast to the corporate guidelines, are developed by the client).

At this stage, an “immersion” in the domain is expected and, in parallel, the mastery of CAT tools. Note that one long-term project is selected for the internship, involving the learning of a single domain, because it is not possible to teach all domains in a limited internship period. Besides, when based on a multi-level long-term project, it is easier to understand the production process, and to understand the specifics of interaction between the participants in the process. The involvement of students in long-term projects is justified, as it allows us to apply the project approach, which has proved to be effective both in production and in academic translator training (Bondarenko, Bondarenko, 2020).

Consequently, students update their skills with CAT tools, especially if the relevant training course was planned for the junior year and students have not used such tools subsequently.

The interns are then offered source and translated texts for thorough familiarisation. The trainees should read good quality translations, so as to be able to shadow and produce similar translations themselves. In their translations, they should follow the style guides for the project. In addition, at this stage, they become familiar with the basic terminology used on the project, as learning the terminology base is obligatory for each long-term project.

The fifth stage involves completing a project with a key, which is usually a translation sent to and approved by the client. After completing the test translation, the student is allowed to compare his or her translation with an existing translation (key) made by a professional translator and checked by a professional editor. At this stage, the intern assesses the quality of the translation performed and analyses errors independently. If necessary, the interns will ask the linguists questions regarding the translation “key”. Special mention should be made of the limited resource of the responsible persons involved at this stage. The in-house linguist should not explain every translation decision, as this is not justified financially and does not allow the interns to adapt and start working on the translation on their own – without much supervision from the in-house linguists. We believe that this phase should be a period of transforming quantitative skills into qualitative ones.

The sixth stage is the actual translation – a full simulation of the translator’s work. Keys are no longer provided at this stage, and the work is verbally assessed first by the editor and then by the quality manager. At this stage feedback is obligatory, with error grading carried out by the in-house editor, and a discussion of the revision completed with the quality manager. Particular emphasis is placed on the intern’s ability to professionally back up his or her position as a professional translator concerning the relevant sources of information. In addition, the intern has to accept the project from the project manager and deliver the translation text to the editor via the translation management system. Note that working with professionals who already have experience (even on simulation projects) is very motivating for students.

The last stage is the final test, the results of which are evaluated according to international quality standards in the translation industry and compared to the “zero” test. A translation quality assessment form (LQA form) with a detailed description of the errors and their typology according to the international classification is completed. Besides this, a generalised evaluation of the quality of the translation is given. It is worth noting that the test translation at this stage is the same zero test performed by the intern at the beginning of the cooperation, and is therefore very revealing because it clearly describes the progress that the intern has made during the traineeship.

It should be noted that initiating the internship model described above requires considerable resources and efforts on the part of the host, but once the internship programme has been developed (selection of texts for translation, preparation of keys) the internship process itself requires minimal resources.

This is fundamentally important for enterprises serving as internship hosting institutions, as the main function of the enterprise remains production and not training. Most of the human resources are needed after the final test translation, when feedback is to be given with the completion of the LAQ form.

Many years of internship experience at Translatel suggest that young translators lack technological, research, and professional competences. However, until 10 years ago, about half of the time students were learning to use digital translation tools and familiarising themselves with the production process, because developed technological competences were seen as rather exotic at that time. The CAT for Grad social project (Bondarenko, 2022), initiated by Translatel, has led to a systematic filling of this gap in the vocational training of students who come for internships now (Bondarenko, 2016). During 2015-2019, thanks to participation in the project, representatives of more than 20 higher education institutions in Ukraine were able to obtain information and the necessary skills free of charge, get certified, and implement relevant courses in their universities, so we think that for many internship hosting institutions this was significant relief in their interaction with the interns. Particularly critical in hindering student mastery of specific domains is the low level of searching competence observed among students, which is obviously an aspect that needs to be developed in translation classes. A lack of familiarity with the full cycle of professional translation can be eliminated by introducing management courses and a project-based approach in translation practice classes.

Given the statistics that appear at the beginning of our study regarding the distribution of self-employed and full-time translators, we do not rule out the possibility of graduates finding further employment as freelancers, or as sole translators in travel agencies, industries, etc. We are convinced, however, that university internships should be organised as productively as possible, with a thorough analysis of translators' competencies carried out, first and foremost, by professional working translators, editors, and managers. The feedback on the student's work would then be more objective, and the conclusions from the internships would be more systematic and taken into account when developing or updating the curricula for translator training. We believe the situation could be changed qualitatively by the productive interaction of stakeholders who are genuinely interested in the employment of graduates of certain departments, rather than simply carrying out an honourable mission, and often disorienting with their advice and remarks.

When developing the recommendations, it should be taken into account that the process of training students within language companies requires additional efforts from the latter, so the recommendations should keep in mind the interests of all parties. In this respect, we recommend making it as easy as possible for the internship supervisors at the companies to do the paperwork for hiring, and to interact for the feedback (using online forms, etc.). It would, of course, be desirable for quality internship hosting institutions to have priority in recommending students, who at the moment are still inclined to rely on the opinion of the department. That said, for the linguistic market in general and specific students in particular, students' independent choice of future internships is a big plus, as it reduces the job search shock, which might result in the rejection of jobs in the linguistic services.

Based on our own and international experience (Garcés, 2011), we can recommend primarily linguistic companies that meet the following criteria for internship hosting institutions:

- 1) offer a “full cycle” of linguistic production;
- 2) have full-time linguists capable of accompanying trainees;
- 3) willing to maintain systematic productive cooperation with the translation department.

Given the limited commitment to social responsibility in the Ukrainian translation industry, and the small number of “full-cycle” companies, a possible option at this stage would be the introduction of distance-learning internships hosted by such companies.

If universities do not consider the interests of companies, it becomes impossible for language companies to participate as internship hosts and establish productive collaboration. The companies may indeed be interested in attracting the best professionals from the translation departments, but are not willing to spend too much time and effort on training, quite predictably considering that students should learn most of the necessary skills while still at university. Regrettably, many Ukrainian universities, and – often – their students, do not consistently see a clear connection between their academic studies and their future careers. Consequently, their interest in understanding the actual demands of the job market is often superficial, and they may view internship recommendations as mere formalities. However, we believe that the situation is gradually evolving, with translation departments facing greater competition. Thus, we anticipate that collaborative engagement

between the industry and universities, which can take the form of offering professional guidance, undertaking joint projects, and certainly facilitating internships, is becoming increasingly unavoidable.

A systematic approach to predictable, mutually beneficial work internships with obligatory feedback from professionals in the language services world and higher education institutions will, we believe, enhance the training of translation professionals and their competitiveness in adult professional life.

## References

- Bila Tserkva National Agrarian University. (2021). *Metodychni rekomendatsiyi schodo organizatsiyi ta provedennya vyrobnychoyi (perekladats'koyi) praktyky (pereklad pys'movykh ta usnykh riznozhandrovykh tekstiv, agrarnykh vklyuchno, u nevyznachennykh umovakh diyal'nosti) dlya zdobuvachiv vyschoyi osvity zi spetsial'nosti 035 "Filolohiya" (pereklad) pershoho (bakalavrs'koho) rivnya vyschoyi osvity*. [Methodological recommendations on how to organize and carry out industrial (translation) internship (translation and interpretation of multigenre texts, agrarian inclusively, in unspecified conditions) for graduates of higher education specialty 035 "Philology" (translation), the first (bachelor) level of higher education]. Bila Tserkva, Ukraine: Bila Tserkva National Agrarian University.
- Bondarenko, K., Bondarenko, O. (2020). Crowd technologies in translator training programs. *Research Bulletin. Series: Philological Sciences*, 187, 557-565.
- Bondarenko, K., Bondarenko, O. (2021). Nurturing collaboration between translation business and academia in Ukraine. *SHS Web of Conferences*, 105, p. 05002). EDP Sciences.
- Bondarenko, O. (2016) Computer-Aided Tools (CAT) Literacy at Ukrainian Universities: Practices of Implementation. *Research Bulletin. Series: Philological Sciences*, 146, 648-650.
- Bondarenko, O. (host). (21.08.2023). *CAT for Grad*. <http://surl.li/khoda>
- Chernovatiy, L.M. & Ginzburg, O.M. (2009). Problemy otsynuvannya pys'movykh perekladiv maybutnikh perekladachiv z anhliyskoyi movy na ukrayinsku [English-Ukrainian would-be translators' evaluation]. *Journal of the Chernihiv State Pedagogical University. Series: Pedagogical Sciences*, 70, 231–235.
- Forstner, M., Lee-Jahnke, H. & Schmitt, P.A. (Eds.). (2009). *CIUTI-Forum 2008: enhancing translation quality: ways, means, methods*. Lausanne: Peter Lang.
- Garcés, C. (2011). Connecting translation employers and trainers. Experience of internships in public service interpreting and translation training. *Vertimo studijos*, 4(4), 107-117.
- Garcés, C. V., Toudic D. (2015) Technological Innovation and Translation. Training Translators in the EU for the 21st century. *Verbeia: Journal of English and Spanish Studies = revista de estudios filológicos*, 0, 183-202.

- Martynyuk, O.M., Mykhalshuk, S.O. (2021). Sylabus osvith'oho komponenta "Praktyka vyrobnycha perekladats'ka" pidhotovky bakalavra, haluzi znan' 03 Humanitarni nauky, spetsialnosti 035 Filolohiya, za osvith'o –profesiynoyu prohramoyu Mova I literature (frantsuz'ka). Pereklad. [Sylabus of education-professional component "Industrial (translation) internship", bachelor training, sphere of knowledge 03 Humanities, specialty 035 Philology, in the educational and professional program Language and Literature (French)]. Lesya Ukrainka Volyn National University, Faculty of Foreign Philology, Department of Romance Languages and interlinguistics, Ukraine.
- Nakaz "Pro zatverdzhennya Polozhennya pro provedennya praktyky studentiv vyshcheykh navchal'nykh zakladiv Ukrayiny №93 vid 08.04.93 (Iz zminamy, vnesennymy zhidno z Nakazom Mynosvity №351 (v0351281-94) vid 20.01.94" (1993). [Order "On approval of the Regulations on the practice of students of higher educational institutions of Ukraine N 93 from 08.04.93 (as amended in accordance with the Order of the Ministry of Education and Science of Ukraine)"]. Ministry of Education and Science of Ukraine. Retrieved from <https://zakon.rada.gov.ua/laws/show/z0035-93#Text>
- National University of "Kyiv-Mohyla" Academy. (2017). Perekladats'ka praktyka: metodychni rekomendatsiyi [Translation internship: guidelines]. Kyiv, Ukraine: NAUKMA.
- Technical Committee ISO/TC 37/SC 5 Translation, interpreting and related technology. (2015). *Translation services – Requirements for translation services* (ISO 17100: 2015). <https://www.iso.org/standard/59149.html>
- Ukrainian Association of Translators and Interpreters. (2020). Opytuvannya perekladachiv Ukrayiny Ukrayins'koyi asotsiatsiyi perekladachiv za pidtrymky "Tsentru sotcialnoho audytu" [Survey of translators of Ukraine by the Ukrainian Association of Translators with the support of the "Social Audit Center"]. Kyiv: Ukrainian Association of Translators and Interpreters.
- V.N. Karazin Kharkiv National University. (2021). Metodychni rekomendatsiyi dlya samostiynoyi roboty studentiv za navchalnoyu dyscyplinoyu "Perekladats'ka praktyka" [Guidelines for self-study work in "Translation internship"]. Kharkiv, Ukraine: V.N. Karazin Kharkiv National University.
- Vasyl' Stus Donetsk National University. (2016). Metodychni rekomendatsiyi shchodo vykonannya vyrobnychoyi praktyky (perekladats'koyi) dlya studentiv spetsialnosti 6030206 "Mizhnarodnyi biznes" [Guidelines for industrial (translation) internship for students, speciality 6030206 "International Business"]. Vinnytsya, Ukraine: Vasyl' Stus Donetsk National University.
- Volodymyr Vynnychenko Central Ukrainian State Pedagogical University. (2020). Metodychni rekomendatsiyi do provedennya perekladats'koyi praktyky studentiv starshukh kursiv. [Guidelines for translation internship for senior students]. Kropyvnytskyi, Ukraine: Volodymyr Vynnychenko Central Ukrainian State Pedagogical University.
- Zhytomyr Ivan Franko State University. (2021). Perekladats'ka praktyka (metodychni rekomendatsiyi shchodo orhanizatsiyi ta prpvedennya perekladatskykh praktyk u Navchalno-naukovomy universyteti imeni Ivana Franka) [Guidelines for translation internship at Zhytomyr Ivan Franko State University, Educational and Research Institute of Foreign Philology]. Zhytomyr, Ukraine: Zhytomyr Ivan Franko State University

## SECTION 4 THE METHODOLOGY OF TRANSLATOR AND INTERPRETER TRAINING

### CHAPTER 10 TEACHING INTERPRETING IN THE DOMAIN OF INTERNATIONAL ECONOMICS

Natalia Zinukova

#### **Abstract**

This chapter describes an experiment organised to check the effectiveness of the development of professional consecutive interpreting competence (English and Ukrainian) in the domain of international economics of university students majoring in Philology. The study included the formulation of the research hypothesis, the conduct of the pre- and post-experimental tests, and the experimental teaching itself. The author describes its stages, conditions and the application of the mathematical-statistical methods to analyse the two variants of experimental methodology and to interpret the results. The paper substantiates the conclusions and outlines the prospects of further research.

**Key words:** consecutive interpreting, experimental teaching, international economic sphere, professional interpreting competence, university Philology students.

The new millennium has brought dramatic changes in society and new challenges in the form of globalisation, which has led to the growth of national consciousness, the strengthening of the multipolarity of the world, crises, the emergence of new international organisations, information networks, the unification of the educational space, and so on. Translation has become a full participant in the production process, with its own resources. The social order for the translator's profession has also changed, with significantly increased demands for professional competence and the need to train specialists who can fully compete on the European and international labour markets

The development of the international economic environment and the need for international cooperation determine the important role and specifics of translators' activity in the new economic environment. In this regard, a new generation of Ukrainian translators is growing up and studying under new requirements for their professional training. The level of professionalism

of modern translators must meet international standards, which poses new challenges to the methodology of translation education.

The objective of this chapter is to present the findings of the experimental verification of the methodology employed for the development of the skills of university MA students in professional consecutive interpreting within the field of international economics.

The theoretical and methodological basis of the research within the *translation-studies related aspect* was provided by the works in the field of translation theory and practice (Wilss, 1982; Newmark, 1988; Nord, 1992, Roy, 2000; Robinson, 2007; Chernovaty, 2013).

Within the *psychological* and *psycholinguistic* aspects of the problem, we took into account the data concerning the translation process as a result of mental operations that take place in the translator's mind, which are not accessible to direct observation; the nature of translation actions and operations (Lörscher, 1992); memory processes (De Groot & Christoffels, 2006); the selection of translation strategies (Lörscher, 1992); and attention during translation (Bajo & Padilla, 2000).

From a *didactic point of view*, our research is based on a systematic approach to translator training (Kalina, 2005; Alves & Goncalves, 2007), the characteristics and advantages of the competence-based approach (PACTE, 2005) and the recognition of competences as learning outcomes (Malmkjær, 2008).

*In terms of methodology*, our work is based on the available research on teaching interpreting, in particular M. Bowen (1980), C. Angelli (2000), F. Pöchhacker (2001; 2004), D. Gile (1995), A. De Groot (2006) and others.

According to our concept, the content of consecutive interpreting (CI) training in the international economic sphere (IES) as part of the development of an interpreter's professional competence (IPC) includes: typical communicative situations that are as close as possible to real professional conditions; functionally significant topics of business discourse; professional texts that meet certain criteria; and the professional knowledge, abilities and skills that make up IPC (Zinukova, 2017).

Our experiment was pedagogical because it involved the development of the professional competence of a fully-fledged interpreter of MA students in Philology. It was also natural because it was carried out under standard learning conditions related to the students' classroom, individual and independent work

– it did not involve changing the composition of the groups or a deliberate selection of participants. The experiment was open as it allowed certain changes during its course. It is classified as vertical-horizontal: its vertical nature is related to the comparison of the students' level of IPC components before and after the experiment, while its horizontal nature is related to the evaluation of the effectiveness of two variants of the teaching methodology.

In planning the experiment, we considered the various stages and design requirements for its preparation and conduct (Cobb, Confrey, diSessa, Lehrer & Schauble, 2003; Lobato, 2003; Bannan-Ritland, 2003). These included: 1) determining the content of the experimental teaching; 2) forming experimental groups; 3) conducting the experiment; and 4) analysing and interpreting the results.

At the first stage, we formulated the hypothesis, outlined the aim and objectives, selected the experimental groups, determined the content of the experimental teaching, the evaluation criteria, the structure of the experiment and the methods of the statistical data processing.

The analysis of scientific and pedagogic literature, and the results of our questionnaire survey of 60 prospective translators/interpreters, 21 university teachers of translation/interpreting, 35 graduates and professional translators demonstrated that there is a lack of a theoretically founded methodology for teaching CI in the domain of international economics in Ukrainian universities. Furthermore, 43% of first-year MA students surveyed acknowledged that their proficiency in interpreting texts pertaining to intercultural business communication was inadequate. This raises concerns about the quality of training interpreters in this field, despite the evident social demand for such professionals.

It should be noted that a number of studies have proposed individual exercises for the training of interpreters, but one of the main drawbacks of these is the lack of focus on the consistent acquisition of subject knowledge as well as the development of special and strategic skills. In addition, as already mentioned, another important parameter that influences the quality of interpreting, but is rarely taken into account in current interpreter training, is related to specific professional aspects: physical, psychological and informational training, the development of non-verbal presentation skills (gestures, facial expressions, visual contact with the audience, adapting to the speaker's style, etc.), and prosodic skills (such as tempo, tone of voice, intonation, emphasis).

Another important aspect of interpreter training is the time factor related to the interpreter's speaking rate and reaction to the interpreting task, which has not yet been considered in pedagogical experiments, but which is of exceptional importance for the objective assessment of target text quality, and which should be taken into account in interpreter training.

When teaching CI, the timing allows for the gradual reduction of the duration of pauses needed to render the source text. Step by step, it allows the student to approach the speed that is optimal for the recipient's perception. On the other hand, it is useful to measure the dynamics of the student's progress by comparing the rate of delivery, the proportion of hesitation pauses, false starts, etc.

The above allowed us to formulate the hypothesis of the study: the methodology of teaching consecutive interpreting, which involves the development of strategic (anticipating, finding and justifying interpreting decisions) and special (preserving the main meaning of the source text in the target text, conveying specialised terminology, ensuring the coherence of the target text, etc. – see further) skills can ensure the effectiveness of training. Based on the ideas of subject-synergistic, competence and cognitive approaches, such methodology is capable of contributing to the improvement of the general professional competence of the future translator.

The hypothesis was tested in an experiment conducted throughout one semester (60 contact hours) with 48 MA students majoring in Philology at the Alfred Nobel University (Dnipro, Ukraine). The participants were distributed among four experimental groups (EG). The experiment tested two variants of the abovementioned teaching methodology with different sequences of exercises.

In the first variant (EG 1 and EG 3), tasks for developing the strategic skills of consecutive interpreting prevailed at first, and then the proportion of tasks for developing its special skills gradually increased, while in the other two EGs (EG 2 and EG 4) the order of the tasks was reversed.

*The aim of the experiment* was to test the effect of the suggested methodology in general and to establish the comparative efficiency of its two variants.

In accordance with the aim, the following *tasks* were defined:

- to carry out a pre-experimental test in order to establish the initial level of the participants' consecutive interpreting competence;
- to determine the degree of equality of the groups before the experiment and to establish a reference point for comparison with the results of the post-experimental test;

- to carry out the experimental training based on our methodology;
- to carry out a post-experimental test to determine the final level of the participants' competence in consecutive interpreting;
- to check the reliability of the obtained data using mathematical statistics;
- to analyse and compare the results of the pre- and post-experimental tests;
- to establish the comparative effectiveness of the two variants of our teaching methodology;
- to formulate conclusions on the effectiveness of the developed methodology and the expected minimal requirements for the consecutive interpreting competence of MA students' in the field of international economics.

The *invariable conditions of the* experiment included:

- the composition of the participants in experimental training (the same students in all groups);
- the initial level of the participants' special interpreting skills of in all groups;
- the same teacher (the author of the methodology) in all groups;
- the number of hours for classroom training, individual and independent work by the students;
- the assessment criteria;
- the duration of the experimental training;
- the teaching materials.

*The variable condition of the* experiment was the sequence of training activities, which proceeded from strategic to special skill development in groups EG 1 and EG 3, and in the reverse order in groups EG 2 and EG 4 (see Table 10.1).

Evaluation of the pre- and post-experimental tests required the use of scientifically sound and reliable criteria, which in our case included *adequacy*, *equivalence* and *harmony*. Adequacy was considered to be the degree of agreement between the content of the source and target texts. Equivalence was viewed as the appropriate interlingual transformation of the source text resulting in accuracy in the target-language at the grammatical, lexical and textual levels, including the use of cohesive devices.

Harmony between the source and the target texts was assessed on the basis of the appropriateness of the use of paralinguistic means of communication

and the interpreter’s non-verbal behaviour, such as: voice, pace, recipient-oriented attitude, gestures, posture, etc.

In the pre-experimental test, participants were asked to consecutively and bilaterally interpret a conversation simulating a real-life situation (interview with a specialist in the field of international economics). The 1010-word interview consisted structurally of nine question-and-answer blocks organized around a common semantic core. The text contained 25 units of precise information (numbers, titles, proper names) and 34 terms related to the field of international economics.

Table 10.1

**Variants of the Methodology of Experimental Training in Consecutive Interpreting in the International Economic Sphere**

Variants of methodology	Groups	Stages of training	Exercise groups	Content of training for CI in the IES
Variant 1	EG-1 and EG-3	Main to automatize skills and develop special and strategic skills of CI in IES	<p>To automatize the special skills of the CI (2.1)</p> <p>To automatize the special skills of the CI in IES (2.2)</p> <p>To automatize the strategic skills of the CI in the IES (2.4)</p> <p>For the development of special skills of CI in the IES (2.3)</p>	<p><i>To develop strategic CI skills in IES (2.4):</i> exercises to develop skills in anticipation, language compression, decompression, grammatical inversion, specification/generalisation, synonymic/antonymic interpreting, backward correction, finding standard translation solutions, finding adequate solutions according to the situation, and justifying the choice of translation solution.</p> <p><i>To develop special CI skills in IES (2.3):</i> exercises on translation of clichés, phraseological units, proverbs, sayings, catchphrases, paraphrasing, development of CI skills, practicing lexical, grammatical, lexical-grammatical transformations in the interpretation of IES texts, switching from one working language to another and from alphabetic to digital code at the microtext level.</p> <p><i>Types of control:</i> intermediate control (the purpose – to check the degree of development of the skills and abilities of the CI in the IES); self-control, self-assessment.</p>

Continuation of Table 10.1

Variants of methodology	Groups	Stages of training	Exercise groups	Content of training for CI in the IES
Variant 2	EG-2 and EG-4	The main one for automatizing skills and developing special and strategic skills of the CI in the IES	<p>To automatize the special skills of the CI (2.1)</p> <p>To automatize the special skills of the CI in the power plant (2.2)</p> <p>For the development of special skills of CI in IES (2.3)</p> <p>To develop the strategic skills of the CI in the IES (2.4)</p>	<p><i>To develop special CI skills in IES (2.3):</i> exercises on translation of clichés, phraseological units, proverbs, sayings, catchphrases, paraphrasing, development of CI skills, practicing lexical, grammatical, lexical-grammatical transformations in the interpretation of IES texts, switching from one working language to another and from alphabetic to digital code at the microtext level.</p> <p><i>To develop strategic CI skills in IES (2.4):</i> exercises to develop skills in anticipation, language compression, decompression, grammatical inversion, specification/generalisation, synonymic/antonymic interpreting, backward correction, finding standard translation solutions, finding adequate solutions according to the situation, and justifying the choice of translation solution.</p> <p><i>Types of control:</i> intermediate control (the purpose – to check the degree of development of the skills and abilities of the CI in the IES); self-control, self-assessment.</p>

Abbreviations in Table 10.1: CI – consecutive interpreting, IES – international economic sphere

In the course of the experimental development of IPC in the CI in the IES, the distribution of points and criteria for assessing the correctness of the translation of an oral text of intercultural business discourse were clarified. Thus, the assessment of the level of proficiency in special translation skills was carried out according to the following *parameters*:

- adequacy between the ST and the TT, it ensures that the translation conveys a meaning that reflects the invariant of the ST;
- equivalence between the source and target languages, it ensures that all the necessary interlingual transformations are carried out. These transformations include linguistic and communicative accuracy of the TT. They are manifested in the correct use of lexis, grammar and cohesive devices;

- The objective is to achieve a harmonious relationship between the ST and TT. This entails an understanding of paralinguistic means of communication and the interpreter’s non-verbal behaviour, including voice, pace, orientation to the recipient, gestures, posture, and so forth.

The proposed list of levels is based on the results of the experimental training conducted at Alfred Nobel University, Dnipro, in the academic year 2016-2017. The results of the post-experimental assessment indicated that the majority of students had achieved the optimal, necessary, and sufficient levels. However, the level of some students was found to be minimally sufficient, which can be attributed to the individual characteristics of the students, specifically their insufficient command of English.

The experiment was conducted over a period of 15 weeks, with four hours of instruction per week in each group, amounting to a total of 60 hours (240 hours in total).

The experiment comprised several stages, including a preliminary section to ascertain the level of CI skill development, an introductory conversation with the experiment’s participants to justify the process and content of its implementation, experimental training, and a post-experimental section to determine the level of CI skill development in the IES. The results of the experiment were then analysed.

To facilitate the research process, we have devised a typology of errors and a descriptive evaluation scheme that provides a comprehensive account of the scoring system and evaluation criteria for the CI. In order to ascertain the level of training of the participants in the experimental groups, a pre-experimental test was conducted prior to the commencement of the experiment. The test comprised a subject-oriented interview with a specialist in the field of international trade. This 1010-word-long interview consisted of nine questions and answers pertaining to a common semantic content. The text comprised 25 units of precise information (numbers, titles, proper names) and 34 terms related to intercultural business discourse.

This task involved determining the initial level of specialised skills of consecutive bilateral interpreting in IES, namely:

- ability to translate terminology related to the subject matter of the translation.
- ability to preserve the main meaning of the ST in the TT

- ability to utilise transformation techniques (compression/decompression, omission/addition, generalisation/specification, antonyms and semantic equivalents, grammatical inversion)
- ability to ensure logical consistency and coherence in the TT;
- ability to switch between languages and between numeric and alphabetic codes;
- ability to take notes;
- prosodic skills and skills of the TT presentation (including non-verbal behaviour).

The levels of proficiency in CI were determined by applying the aforementioned quantitative and qualitative parameters using a descriptive scale and a scoring system. To assess the rate of speech, students were provided with a text of equivalent length for translation, and the time taken to complete it was recorded. Furthermore, the amount of false starts and the duration of hesitation pauses were also considered, as these factors influenced the temporal characteristics of the translation.

The following section will present a detailed account of the distribution of points according to the selected criteria. A total of 15 points are allocated to the criterion of adequacy between the ST and the TT, defined as the degree to which the main meaning of the ST is preserved in the TT. This criterion implies a free perception of the ST by ear in conditions of one-time and short duration, using note-taking, and its correct theme-rheme arrangement. The remaining 15 points are allocated to the criterion of identification of terms in the ST: identification of terms in the ST (3 marks); identification of lexical items specific to business discourse texts (3 marks); switching from the source language to the target language and from numerical to alphabetic code (3 marks); retention in memory of lengthy source text fragments (3 marks). A deduction of one point was made for each instance of an inconsistency in the preservation of the main content of the ST.

The criterion of equivalence between the ST and TT requires the implementation of all necessary interlingual transformations. These include the correct use of lexemes, grammar, and cohesion devices, which collectively account for 10 points. The most frequent lexical and phraseological correspondences account for 2 points, while the use of transformations to overcome difficulties related to lexical, grammatical, stylistic, and other differences between the ST and TT accounts for 2 points each. Finally,

logical and compositional structuring of business discourse texts accounts for 2 points. A deduction of 0.5 points was applied in instances where the aforementioned components were incorrectly utilised. In the absence of logic in the presentation, no points were awarded.

The criterion of harmony between the ST and the TT, which encompasses paralinguistic means of communication and non-verbal behaviour exhibited by the interpreter, is worth five points. This implies a professional presentation of the TT, effective management of the interpreter’s mental state, and synchronisation of translation actions. In the event of inappropriate interpreter behaviour, excessive hesitation, prolonged pauses and a slow, unnatural delivery pace, no points were awarded.

Accordingly, the aforementioned levels of CI skills allow for the definition of qualitative and quantitative parameters for the assessment of the formation of said skills. It is worthwhile to recall the well-known ECTS grading scale (Table 10.2).

*Table 10.2*

**ECTS grading scale**

Total points	ECTS assessment	Level
90 - 100	A	professional
82 - 89	B	optimum
75 - 81	C	necessary
67 - 74	D	sufficient
60 - 66	E	minimum sufficient
35 - 59	FX	insufficient
1 - 34	F	

The evaluation of the results of the pre-experimental and experimental sections allows for a maximum score of 30 points for each participant. By recalculating the intervals corresponding to the grades A, B, C, D, E, F, and X of the ECTS system, the following indicators are obtained (see Table 10.3).

Table 10.3

**Correspondence of the intervals to ECTS grades**

Gaps corresponding to ECTS grades A, B, C, D, E, FX, X	ECTS assessment
26.9 - 30.0	A
24.5 - 26.8	B
22.4 - 24.4	C
20.0 - 22.3	D
17.9 - 19.9	E
10.4 - 17.8	FX
0.3 - 10.3	F

Using the example of obtaining an interval that corresponds to grade A, let's show how the calculations for the other grades are made. To do this, let's use a common proportion. Note that in the calculations, we will take into account the different number of decimal places in the intervals that determine the score.

Thus,

$$\left\{ \begin{array}{l} 100 \text{ ECTS points} - 30 \text{ points} \\ 90 \text{ ECTS points} \end{array} \right. \quad x \text{ points} \Rightarrow x = \frac{30 \times 90}{100} = 26.9 \text{ (points)}$$

The result is a range of 26.9 - 30, which corresponds to a score of A. The remaining rows of Table 2 were filled in similarly.

The performance of each group will be analysed on the basis of the results of the pre-experimental test. A considerable number of errors were identified in the areas of perception, understanding and expression. The majority of errors pertaining to expression were a consequence of the distortion of precise information, in addition to alterations in content and the omission of significant information due to a lacuna in subject knowledge. Such errors also indicate a lack of development in the skills required for the construction of logical and coherent utterances during the translation process. It was also to be expected that a considerable number of comprehension errors would occur, given the insufficient level of background knowledge demonstrated by the students in relation to IES activities.

Table 10.4

Average indicators based on the results of the pre-experimental test

Group index	Perception errors (25%)	Misunderstandings (25%)	Expression errors (30%)	Interpreter's behavioural errors (20%)	Total points
(EG1)	10.2	10.3	13.3	5.3	39,1
(EG2)	12.3	12	15	5.2	44.5
(EG3)	12.5	13	14.5	5.2	45.2
(EG4)	11	11.5	14	5.2	41.7

A considerable number of points for behavioural errors were withheld from students due to the slow pace of delivery. As the students themselves explained, in a significant number of cases they felt uncertain about the interpretation they provided. This was accompanied by a fairly large number and length of hesitation pauses (lasting between three and five seconds) and false starts (self-corrections), which were also a consequence of this uncertainty. It is noteworthy that the majority of non-verbal errors were a result of students gesturing excessively, exhibiting poor control of their facial expressions, or, conversely, behaving in an unnatural manner, characterised by a stationary posture and a lack of eye contact.

The participants of the four experimental groups were selected via the method of expert evaluation. The performance of each group will now be analysed based on the results of the pre-experimental test. As can be observed from Table 5, the criterion of “adequacy” exhibits relatively low scores. The maximum number of points could have been obtained by a student who demonstrated comprehensive understanding of the ST and rendered it accurately into TT. This would entail fully retaining the main meaning of the ST in the TT, effectively using the note-taking technique, clearly conveying the meaning of the utterance, correctly using the theme-rheme structure, distinguishing lexical items specific to business discourse texts in the ST, and managing to retain in memory the ST fragments of significant length.

Additionally, the criterion of “equivalence” yielded similarly low scores. However, the data were approximately equal. In accordance with the criterion

that determines the level of harmony between ST and TT, which encompasses paralinguistic means of communication and the translator's non-verbal behaviour, the scores in the experimental groups are not significantly disparate. The analysis of the data obtained reveals that the indicators of the experimental groups exhibit only slight differences from one another.

Table 10.5

Results of the pre-experimental test

Group index	Adequacy between the source and target texts (max – 15)	Equivalence between source and target texts (max – 10)	Harmony between the source and target texts (max – 5)	Total score (max – 30)	%
EG-1	7.92	8.21	0.50	16.50	55.00
EG-3	9.33	8.75	0.08	18.20	60.70
EG-2	8.17	7.67	2.67	18.50	61.60
EG-4	11.08	7.67	1.25	19.90	66.30

To ensure the reliability and objectivity of the experimental training, we used the methods of mathematical research of quantitative characteristics (Artemchuk et al., 2000; Bilukha, 2002; Goncharenko, 1995; Haig, 2000; Sloane & Gorard, 2003).

For mathematical proof of the same initial level of students in the experimental groups, we used Fisher's test to check the equality of variance and Student's test to prove the equality of means (Bilukha, 2002).

The Fisher criterion ( $F$ ), calculated on the basis of experimental data as the ratio of the variances of the two groups, is compared with the tabulated value of the Fisher critical distribution ( $F_{кр.}$ ) (Barkovsky et al., 2002, pp. 253-256).

$$F = Sx^2 / Sy^2, \quad (1)$$

where  $Sx^2$  - is the variance of the first group;

$Sy^2$  - is the variance of the second group.

The variance can be defined as follows:

$$Sx^2 = \sum_{i=1}^n (Xi - \bar{X})^2 / (n - 1) \quad (2)$$

where.  $\bar{X}$  - is the arithmetic mean for the group;

$Xi$  - *i*-th observation in the group;

$n$  - number of observations (students) in the group.

If  $F_{kp.} > F$  (for  $F_{kp.} > 1$ ), then the variances of the groups are considered equal and you can start assessing the significance of the difference in the mean values in these groups by the Student's t-test.

The hypothesis of equality of mean values in the two groups is rejected if the Student's *t test* ( $t$ ) calculated on the basis of the observations is greater than the absolute value of the critical Student's distribution ( $t_{kp.}$ ), which we take from the tables (Sydorenko, 2004).

$$|t| > t_{kp.} \quad (3)$$

The significance level ( $\alpha$ ) for  $t_{kp.}$  is 0.05. In other words, the risk of unreasonable rejection of the hypothesis of equality of means is 5%.

The Student's t-test is calculated using the formula:

$$t = (\bar{X} - \bar{Y}) \left( n \cdot m / (n - m) \right)^{1/2} \left[ (n - 1) Sx^{2+(m-1)} Sy^2 \right]^{1/2} / (n + m - 2)^{-1/2} \quad (4)$$

where.  $\bar{X}$  - is the arithmetic mean of the first group;

$Sx^2$  - is the variance of the first group;

$n$  - is the number of observations in the first group;

$\bar{Y}$  - the arithmetic mean of the second group;

$Sy^2$  - is the variance of the second group;

$m$  - is the number of observations in the second group.

For both pairs of groups (EG-1–EG-3; EG-2–EG-4), before the experimental training, the Fisher criterion for the equivalence criteria (EQV) between the ST and TT (Table 10.8) is less than the Fisher critical distribution value ( $F_{kp.}$ ). In other words, the variance in this indicator is equal. The Student's criterion ( $t$ )

is less than the critical Student's distribution ( $t_{kp}$ ) for the equivalence (EQV) (Table 10.8) and adequacy (ADQ) indicators (Table 10.6).

As for the indicators of harmony between the ST and TT (HAR) (Table 7), the EG-3 group has a slightly higher level of harmony.

Table 10.6

Testing the hypothesis of equality of results in the pre-experimental test (adequacy)

Groups	Unbiased estimate of dispersion for indicator ADQ		Correlation of dispersions (Fisher criterion, $F$ )	Critical value of Fisher distribution, $F_{kp}$ .	Critical value of Student's distribution $t_{kp}$ .	Student's Criterion, $t$
	EG-1	EG-3				
1.3	3.17	3.15	1.01	2.82	2.07	1.95
	EG-2	EG-4				
2.4	11.06	2.63	4.21	2.82	2.12	2.03

Abbreviations in Table 10.6: ADQ– adequacy between the ST and TT.

Table 10.7

Testing the hypothesis of equality of results in the pre-experimental test (harmony)

Groups	Unbiased estimate of dispersion for indicator HAR		Correlation of dispersions (Fisher criterion, $F$ )	Critical value of Fisher distribution, $F_{kp}$ .	Critical value of Student's distribution $t_{kp}$ .	Student's Criterion, $t$
	EG-1	EG-3				
1.3	0.45	0.08	5.45	2.82	2.13	1.75
	EG-2	EG-4				
2.4	0.97	2.39	2.46	2.82	2.07	2.68

Abbreviations in Table 10.7: HAR – harmony between the ST and TT.

Table 10.8

Testing the hypothesis of equality of results in the pre-experimental test (equivalence)

Groups	Unbiased estimate of dispersion for indicator EQV		Correlation of dispersions (Fisher criterion, $F$ )	Critical value of Fisher distribution, $F_{sp.}$	Critical value of Student's distribution $t_{sp.}$	Student's Criterion, $t$
	EG-1	EG-3				
1.3	1.25	1.52	1.22	2.82	2.07	1.13
	EG-2	EG-4				
2.4	2.47	1.11	2.23	2.82	2.07	0.00

Abbreviations in Table 10.8: EQV – equivalence between the ST and TT.

The results of the pre-experimental test indicated that the students in the four groups exhibited a comparable level of CI skills. In the pairs of groups EG-1 – EG-3 and EG-2 – EG-4, we identified pairs of participants that exhibited a statistically significant correlation. The results of the pre-experimental test, specifically the criterion of “adequacy”, were considered.

The findings of the pre-experimental test also indicated that the students’ proficiency in CI in IES was below the satisfactory level. It is thought that this is due to an insufficient focus on the development of specialised and strategic skills, particularly those related to prosody and non-verbal communication; an inadequate approach to memory development; and a rather limited understanding of the subject matter within the IES. The results indicated that the level of CI skills in IES was low and approximately equivalent across all four groups. Consequently, two experimental groups (EG1 and EG3) were selected for instruction according to the first variant of our methodology, while the other two groups (EG2 and EG4) were selected for the second variant of instruction.

During the initial stages of the preparatory phase, the instructor furnished the students with comprehensive explanations regarding the rationale behind the training programme, the competencies that were being cultivated through each exercise, and the manner in which these competencies would be employed in the context of interpreting, as well as their contribution to the resolution of interpreting challenges.

The exercises set out in groups 1.1 and 1.2 (see Table 10.1) of the first preparatory stage are designed to cultivate specific competencies for conducting CI in general and CI in IES. The principal objective of these exercises is to enhance subject knowledge pertaining to IES and cultivate specific competencies for CI. Additionally, they facilitate the consolidation of IES terminology, note-taking symbols, and an expanded memory capacity. Furthermore, they enable the analysis of the interpreting strategies and techniques essential for CI. The objective of the exercises was to facilitate the development of individual skills and their complex interaction. Concurrently, the difficulty level of the exercises was increased in a gradual manner. The exercises in Groups 1.1 and 1.2 encompass tasks designed to enhance memory capacity and facilitate the transition from numeric to alphabetic code at the level of individual words (terms, names, numbers, personal names, place names, etc.). Additionally, they encompass the acquisition of synonyms, note-taking symbols, and the acquisition of terms and their meanings.

The first preparatory phase is designed to facilitate the acquisition of subject knowledge in IES through the completion of fundamental exercises that do not require interpretation. These exercises, when coupled with interpreting tasks, are intended to foster the development of subject matter competence among prospective interpreters.

The primary challenge at this juncture was the limited capacity of students' working memory. Initially, they were able to memorise a mere four units of information in the repetition mode and three in the interpreting mode. However, with gradual enhancement, the memory capacity was expanded to encompass five units and beyond, at the level of individual words. Some difficulties were also encountered during the exercises on switching from a numeric to an alphabetic code. At the outset, students were unable to memorise words with numbers without writing them down and to maintain the order of their presentation in interpreting, with the proportion of distortions reaching 80-90%. However, this improved later on. The results of the dictation-translation test, which included bilateral translation of terms written by students at the conclusion of the preparatory phase, demonstrated that students' proficiency in switching between languages within the IES was not yet fully developed.

The exercises of the first (1.1) and second (1.2) groups at the initial preparatory stage were designed to cultivate the special skills of the CI to identify semantic anchor points of the message, analyse the techniques and strategies of CI, theme-rheme distinction and the structure of the TT related to IES.

The greatest difficulties were encountered in identifying the theme-rheme relations and developing the skill of finding semantic reference points in a sentence and retaining them in memory. In order to facilitate memorisation, students were provided with the requisite explanations regarding the utilisation of associations. One of the most straightforward methods is to count the quantity of information present in a sentence on one's fingers, or alternatively, to visualise multi-component, multi-coloured objects, wherein each component is associated with a specific aspect of the message.

With regard to the distinctive competence of discerning the theme-rheme relations and modifying the sequence of words in a sentence, a comparative analysis was conducted to ascertain the discrepancies in the configuration of sentence structure between English and Ukrainian and to identify the prevailing patterns. It is important to note that this stage comprises a significant number of exercises that necessitate meticulous analysis and comprehensive elucidation from the instructor. As a consequence of the necessity to provide a substantial number of explanations, the pace of the training was somewhat diminished, and the level of students' attention declined.

The second stage comprised four groups of exercises designed to facilitate the automatization of special CI skills (2.1), the automatization of special CI skills within the IES (2.2), the development of special CI skills within the IES (2.3), and the development of strategic CI skills within the IES (2.4). The exercises included in Groups 2.1 and 2.2 encompassed a range of techniques aimed at enhancing memory retention during CI in IES. These techniques included theme-rheme division of sentences in IES texts, as well as encoding, decoding, echoing, and imitation.

The group of exercises designed to facilitate the development of special CI skills in IES (2.3) encompassed activities pertaining to the interpreting of clichés, phraseological units, proverbs, sayings, catchphrases, paraphrasing, and the practice of lexical, grammatical, and lexical-grammatical transformations in interpreting IES texts. Additionally, the exercises involved switching between working languages and between alphabetic and numeric codes at the level of the minitext.

The group of exercises for the development of strategic CI skills (2.4) encompassed those for the cultivation of anticipation, compression/decompression, grammatical inversion, specification/generalisation,

synonymic/antonymic interpretation, backward correction, standard interpreting solutions, appropriate situational solutions, and the justification of solutions.

The principal stage of training comprised a series of exercises designed to facilitate the ability to perform one- or two-way interpreting with or without note-taking. This contributed to the development and improvement of the capacity to switch between languages, as evidenced by the outcomes of the intermediate assessment.

The intermediate assessment was designed to evaluate the advancement of interpreting competencies, particularly in the domains of terminology acquisition, rapid response, memory retention, note-taking efficiency, and the capacity to transition between languages. It was conducted in the form of a comprehensive examination comprising four components: two-way terminological dictation-translation, two-way dictation-translation of sentences, interpreting English and Ukrainian terms, and interpreting an abstract from English into Ukrainian.

The results of the intermediate assessment were evaluated according to the 100-point scale (Goncharenko, 2002) in terms of percentage of accuracy. The following grading system was employed: 90-100% = “5”, 80-89% = “4”, 70-79% = “3”, 50-69% = “2”, 30-49% = “1”, 0-29% = “0”. The mean percentage for the experimental groups who studied according to the first variant of the methodology was 79% for EG-1 and 77% for EG-3. In contrast, the second variant yielded higher results. EG2 achieved an average of 85%, while EG4 attained an average of 89%. These findings indicate a notable enhancement in the quality of students’ independent preparation for the midterm examination, along with an advancement in the competencies and capabilities essential for CI in the IES. Conversely, the results also indicate that the experimental groups who studied according to the second variant of the methodology exhibited a certain advantage.

At the main training stage, the development of essential delivery skills for interpreters was a key focus. These skills included the capacity to construct a logical and coherent structure for a statement, to utilise speech formulas to fill in pauses, to correctly format the original message, to maintain eye contact with the audience, to speak with conviction, to behave in a manner that is appropriate in a public setting, to control gestures and facial expressions, to respond in a neutral manner to criticism and to respond positively to failure.

Furthermore, students were given the opportunity to practise the prosodic skills and abilities that are necessary for effective delivery, including aspects such as speaking rate, diction, and correct logical and phrasal stress. The exercises in this group comprised echo repetition (an exercise to imitate the pronunciation, diction, accent and speaking rate of native speakers) and role-playing games simulating real-life situations of interpreting (conferences, interviews, negotiations, seminars, etc.). Students were assigned specific tasks and roles, and were required to prepare the necessary information independently prior to enacting a particular communication scenario in the classroom. All students participated in the role-playing exercises, assuming the roles of both speakers and interpreters. At the conclusion of the role-playing exercises, students were invited to provide feedback on the performance of all the conference participants, including both speakers and interpreters. Additionally, they were encouraged to reflect on the essential qualities of a professional interpreter and the impact of non-verbal communication on the perception of delivery.

The role-playing games included simulations of a conference, negotiation and interview. The games facilitated an understanding of the significance of non-verbal conduct and prosodic abilities for effective interpreting, thereby further enhancing these competencies. It is noteworthy that the students demonstrated a high level of engagement. This can be attributed to the nature of the exercises performed, which were predominantly practical and creative in nature. This approach enabled the demonstration of students' personal qualities, particularly imagination, ingenuity, and teamwork.

The group of exercises (2.4) for the development of the strategic skills of CI in the IEF included activities designed to facilitate the synchronisation of interpreting actions and the implementation of CI in the IES. Additionally, the exercises aimed to enhance the capacity to rapidly memorise and retain information during the process of CI. The exercises were designed to facilitate both individual and group work among students, thereby enhancing their capacity to collaborate effectively within a team.

The final stage of training (3.1 and 3.2) comprises a series of exercises designed to foster the development of advanced and strategic CI skills within the context of the IES. These exercises are intended to enhance the capacity to interpret and translate texts that involve the switching between languages, to develop the ability to identify the underlying themes and structures of written abstracts through interpreting and translation, and to expand the

limits of one's memory capacity through interpreting lengthy messages that are replete with precise information.

The aforementioned groups (3.1 and 3.2) also incorporated anticipation exercises, wherein students were prompted to either continue a statement or conclude a text, take notes, and subsequently translate them. This approach facilitated the consolidation of not only the anticipation mechanism but also the capacity to interpret with consistency and depth, thereby enhancing the students' subject-specific knowledge. Subsequently, we undertook exercises in echo interpreting and two-step interpreting, with the objective of optimising the capacity to switch between languages. These exercises necessitated a degree of teamwork.

The concluding series of exercises at this stage comprised activities designed to enhance strategic competencies, specifically CI in the IES. The interpreting was conducted at a medium and accelerated pace (with shortened pauses), and included note-taking and clarification of specialized terminology as requested by the instructor. Students were encouraged to engage in self- and peer evaluation of their interpretations, which were recorded during independent work at home and assessed according to a set of pre-defined criteria.

The text for the post-experimental testing comprised approximately 990 words, a translation of 14 questions and answers that were unified by a common semantic content. The text included 34 units of precise information (numbers, titles, personal names) and 32 terms related to the topic of IES. The subsequent analysis will focus on the performance of each group, as evidenced by the results of the post-experimental test. The objective of this task was to ascertain the level of development of CI skills in IES. In order to achieve this, it is necessary to consider the results presented in Table 10.9.

It is noteworthy that there has been a considerable enhancement in the temporal performance of interpreting across all groups. The prevalence of self-correction and hesitation pauses has diminished considerably, and the average interpreting rate has increased to 120-130 words per minute. This is evidenced by the translation of a text of 990 words in 7.2-7.6 minutes in the experimental groups EG1-EG3, and in 8.0-8.3 minutes in EG2-EG4.

Table 10.9

Average results in the post-experimental test

Group	Perception errors (25%)	Misunderstandings (25%)	Expression errors (30%)	Translator's behaviour errors (20%)	Total
EG1	8.5	5	4.3	1.9	19.6
EG2	3.05	3.5	6.25	1	14
EG3	3.05	5.5	6.75	2	14.5
EG4	2.5	2.5	4	1.2	10.2

Consequently, the efficacy of the devised methodology for CI instruction in IES was assessed and evaluated throughout the experimental period. To this end, pre- and post-experimental testing was conducted, and the results were evaluated in accordance with the specified criteria. The experiment yielded results that require analysis and interpretation, as well as verification of their reliability. The following section will present the data in greater detail and offer an interpretation thereof.

The students' performance on the tasks was evaluated according to the defined criteria. Then the learning coefficient (K) was calculated using the formula (Goncharenko, 2002)  $K=Q/N$ , where Q is the number of points obtained by the student and N is the maximum number of points possible. The level is considered satisfactory if the average score is not lower than the sufficient learning level of 0.7. The results of the pre-experimental and post-experimental testing are presented in Tables 10.10 and 10.11.

Table 10.10

The level of learning in the pre-experimental testing

Groups	Assessment points (maximum)	Assessment points (scored)	Coefficient of learning
EG1	100	62	0.62
EG2	100	60	0.60
EG3	100	61	0.61
EG4	100	62	0.62

Table 10.11

The level of learning in the post-experimental testing

Groups	Assessment points (maximum)	Assessment points (scored)	Coefficient of learning
EG1	100	82	0.82
EG2	100	93	0.93
EG3	100	81	0.81
EG4	100	94	0.94

The mean scores of the pre- and post-experimental tests in all groups are presented in Table 12. As we can see from Table 10.12, the mean post-experimental scores in the experimental groups using the second variant of the methodology are higher than those using the first variant.

Table 10.12

Average values of pre- and post-experimental testing

Groups	Average learning coefficient		Learning curve increase
	Pre-experimental	Post-experimental	
EG1	0.62	0.82	+0.20
EG2	0.60	0.93	+0.33
EG3	0.61	0.81	+0.20
EG4	0.62	0.94	+0.32

The reliability and objectivity of the empirical data were tested using the multifunctional statistical criterion  $\varphi^*$  - Fisher's angular transformation (Table 10.13). This criterion is designed to compare two samples according to the frequency of the effect.

The criterion assesses the reliability of the differences between the percentages of two samples in which the effect of interest is registered. The essence of the Fisher's angular transformation is to convert percentages into values of the central angle, which is measured in radians.

A larger percentage corresponds to a larger angle  $\varphi^*$ , and a smaller percentage corresponds to a smaller angle (Barkovsky et al., 2002).

Table 10.13

Calculation of the criteria (by the percentage of the learning coefficient) for the experimental groups using Fisher's angular transformation (criterion  $\varphi^*$ )

Groups	Number of points scored			Sums
	Before the experiment	After the experiment	%	
EG1, EG3	123	163	46%	286
EG2, EG4	122	187	54%	309
Sums				595

According to the table of criteria for the value of the angle  $\varphi$  (Barkovsky et al., 2002), we determine the values of  $\varphi$  that correspond to the percentage in each group:

$$\varphi_1(46\%) = 1,691$$

$$\varphi_2(54\%) = 1,451$$

Now let's calculate the empirical value of  $\varphi^*$  using the formula:

$$\varphi^* = (\varphi_1 - \varphi_2) \times \sqrt{\frac{n_1 n_2}{n_1 + n_2}}$$

where:  $\varphi_1$  - is the angle corresponding to the larger % share;

$\varphi_2$  - is the angle corresponding to the smaller % share;

$n_1$  - is the number of points scored in sample 1;

$n_2$  - the number of points scored in sample 2.

In our case:

$$\varphi^*_{\text{emp}} = (1,691 - 1,451) \times \sqrt{\frac{286 \times 309}{286 + 309}} = 0,240 \times \sqrt{148,53} = 2,92$$

According to the table of criteria XII, the value of the angle  $\varphi$  [271, p. 230-233] determines the level of significance corresponding to  $\varphi^*_{\text{емп}}$   
 $\varphi^*_{\text{емп}} = 2,92$ :

$p=0,0001$

The critical value of  $\varphi^*$  for any  $n_1, n_2$  is equal to:

$$\varphi^*_{\text{кр}} = \begin{cases} 1,64 & (p \leq 0,05) \\ 2,31 & (p \leq 0,01) \end{cases}$$

$$\varphi^*_{\text{емп}} = 2,92;$$

$$\varphi^*_{\text{емп}} > \varphi^*_{\text{кр}} \quad (p \leq 0,0001)$$

For greater clarity, let's build an "axis of significance" (statistical reliability of our research data) (Fig. 10.1):

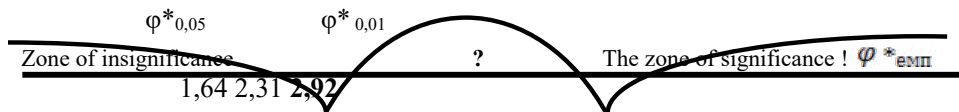


Fig. 10.1. The axis of significance of the statistical reliability of the study results by Fisher's angular transformation (criterion  $\varphi^*$ ).

Thus, we can assume that we have mathematically proved the greater effectiveness of the second variant of our method of teaching consecutive bilateral interpreting and its superiority over the first variant of the proposed method.

The study used the methods of mathematical research of quantitative characteristics of V.V. Barkovsky (2002), M.T. Bilukha (2002) and others.

In order to determine the stability of the development of CI skills in IES, a student survey and a delayed test were carried out in the third semester of the 2016-2017 academic year. With the help of these instruments, we determined the transfer of acquired knowledge and skills of CI in IES and the sustainability of these skills (Table 10.14). In order to assess the level of CI in IES, the following criteria were chosen: the choice of interpreting strategy, the degree to which interpreting transformations are motivated, and the number of errors in comprehension and expression.

The analysis of Table 14 shows that the increase in all criteria is higher in EG-2 and EG-4 than in EG-1 and EG-3. However, in all the experimental groups there is a stability in the skills and abilities that make up the interpreter’s professional competence. In groups EG-2 and EG-4, the level is 90.7% (average), which means that the first stage of the professional level has been reached. In groups EG-1 and EG-3 it is 86.7% (average), which means that a stable acceptable level has been achieved.

*Table 10.14*

Results of the delayed test

Criteria for assessing the level of the interpreter's professional competence	Average rate of completed translations (%)			
	EG-1	EG-2	EG-3	EG-4
Choosing an interpreting strategy	90	93	89	94
Motivated transformations	88	92	85	90
No errors in understanding and expression	85	87	83	88

Thus, the results of the delayed test (Table 10.14) indicate the sustainability of the special and strategic translation skills developed, which is confirmed by the stable dynamics of the quantitative growth of the indicators. It can therefore be said that the use of the proposed methodology leads to a quantitative increase in the rate of learning, which is reflected in a quantitative improvement in knowledge and skills.

To test the effectiveness of the proposed methodology, we will use a conjugacy table calculated by the conjugacy coefficient, which is a measure of the relationship between the attributes in the conjugacy table proposed by Pearson and based on the chi-square statistic. The advantage of this coefficient over the traditional chi-square statistic is that it is easier to interpret, given the range of variation between 0 and 1, where 0 corresponds to the case of independence of the attributes in the table, and an increase in the coefficient indicates an increase in the degree of association. This coefficient can only reach the value of 1 in the case of unlimited classes.

To measure relationships between non-quantitative attributes, we will use nominal scales (Barkovskiy, 2002). Let attribute X be an evaluation of the test and attribute Y be a teaching method. There are 7 levels for attribute

X and two levels for attribute Y: the level of skills “before” and “after” the experiment. On the basis of the data, let’s construct a 7x2 conjugacy table to see if there is a relationship between X and Y (Table 10.15).

Table 10.15

Conjugacy table 1

Y (teaching methodology) X (assessment of skills)	Skills testing		Total
	Pre-experimental	Post-experimental	
A	$k_{11}=0$	$k_{12}=6$	$k_{1}=6$
B	$k_{21}=0$	$k_{22}=1$	$k_{2}=1$
C	$k_{31}=3$	$k_{32}=14$	$k_{3}=17$
D	$k_{41}=0$	$k_{42}=7$	$k_{4}=7$
E	$k_{51}=7$	$k_{52}=7$	$k_{5}=14$
FX	$k_{61}=21$	$k_{62}=7$	$k_{6}=28$
F	$k_{71}=12$	$k_{72}=1$	$k_{7}=13$
Total	$\bar{k}_1=43$	$\bar{k}_2=43$	N=86

The numbers  $k_{ij}$ ,  $i=1,2,\dots,7; j=1,2$ , are called frequencies. In our case, the frequencies are the number of students who received certain grades before

and after the experimental training. In Table 10.10.15 we have  $k_i = \sum_{j=1}^2 k_{ij}$

,  $i=1,2,\dots,7; \bar{k}_j = \sum_{i=1}^7 k_{ij}$ ,  $j=1,2; N = \sum_{i=1}^7 k_i = \sum_{j=1}^2 \bar{k}_j$ . Next, we calculate

the theoretical frequencies  $k_{ij}^{\text{theoretical}} = \frac{k_i \bar{k}_j}{N}$ ,  $i=1,2,\dots,7; j=1,2$ . ( 1 )

The comparison of theoretical frequencies  $k_{ij}^{\text{ôâî ð}}$  with actual  $k_{ij}$  is the basis for testing the hypothesis of independence of the interacting features X and Y.

It should be noted that for the correct application of measures of the relationship of nominal features, it is necessary to fulfil an important practical requirement: at least one of the theoretical frequencies  $k_{ij}^{\text{ôâî ð}}$  should not be small ( $k_{ij}^{\text{ôâî ð}} \geq 5$ ). If this condition is not met, then the number of gradations for the studied features should be reduced by combining them with neighbouring ones.

According to Table 15 and formula (1), we have:

$$\begin{array}{ll}
 k_{11}^{\text{TEOP}} = k_1 \tilde{k}_1 / N = 6 \cdot 43 / 86 = 3 ; & k_{12}^{\text{TEOP}} = k_1 \tilde{k}_2 / N = 6 \cdot 43 / 86 = 3 ; \\
 k_{21}^{\text{TEOP}} = k_2 \tilde{k}_1 / N = 1 \cdot 43 / 86 = 0,5 ; & k_{22}^{\text{TEOP}} = k_2 \tilde{k}_2 / N = 1 \cdot 43 / 86 = 0,5 . \\
 k_{31}^{\text{TEOP}} = k_3 \tilde{k}_1 / N = 17 \cdot 43 / 86 = 8,5 & k_{32}^{\text{TEOP}} = k_3 \tilde{k}_2 / N = 17 \cdot 43 / 86 = 8,5 \\
 k_{41}^{\text{TEOP}} = k_4 \tilde{k}_1 / N = 7 \cdot 43 / 86 = 3,5 & k_{42}^{\text{TEOP}} = k_4 \tilde{k}_2 / N = 7 \cdot 43 / 86 = 3,5 \\
 k_{51}^{\text{TEOP}} = k_5 \tilde{k}_1 / N = 14 \cdot 43 / 86 = 7 & k_{52}^{\text{TEOP}} = k_5 \tilde{k}_2 / N = 14 \cdot 43 / 86 = 7 \\
 k_{61}^{\text{TEOP}} = k_6 \tilde{k}_1 / N = 28 \cdot 43 / 86 = 14 & k_{62}^{\text{TEOP}} = k_6 \tilde{k}_2 / N = 28 \cdot 43 / 86 = 14 \\
 k_{71}^{\text{TEOP}} = k_7 \tilde{k}_1 / N = 13 \cdot 43 / 86 = 6,5 & k_{72}^{\text{TEOP}} = k_7 \tilde{k}_2 / N = 13 \cdot 43 / 86 = 6,5
 \end{array}$$

Since some of the frequencies  $k_{ij}^{\text{ôâî ð}} \leq 5$ , for the correct construction of the conjugacy table for the feature X, it is necessary to reduce the number of gradations. For this purpose, we will consider three gradations of grouping the data for X: “good level”, “satisfactory level” and “unsatisfactory level”.

As a result, we obtain a 3x2 conjugacy table (Table 10.16):

Table 10.16

Conjugacy table 2

Y (teaching methodology) X (assessment of skills)	Skills testing		Total
	Pre-experimental	Post-experimental	
Good level (A+B+C)	$k_{11} = 3$	$k_{12} = 21$	$k_1 = 24$
Satisfactory level (D+E)	$k_{21} = 7$	$k_{22} = 14$	$k_2 = 21$
Unsatisfactory level (F+G)	$k_{31} = 33$	$k_{32} = 8$	$k_3 = 41$
Total	$\bar{k}_1 = 43$	$\bar{k}_2 = 43$	N=86

Let's make sure that all  $k_{ij}^{\text{ôâî ð}} \geq 5$ . To do this, let's calculate their values using Table 16 and formula (1):

$$k_{11}^{\text{TEOP}} = k_1 \tilde{k}_1 / N = 24 \cdot 43 / 86 = 12;$$

$$k_{12}^{\text{TEOP}} = k_1 \tilde{k}_2 / N = 24 \cdot 43 / 86 = 12;$$

$$k_{21}^{\text{TEOP}} = k_2 \tilde{k}_1 / N = 21 \cdot 43 / 86 = 10,5;$$

$$k_{22}^{\text{TEOP}} = k_2 \tilde{k}_2 / N = 21 \cdot 43 / 86 = 10,5;$$

$$k_{31}^{\text{TEOP}} = k_3 \tilde{k}_1 / N = 41 \cdot 43 / 86 = 20,5;$$

$$k_{32}^{\text{TEOP}} = k_3 \tilde{k}_2 / N = 41 \cdot 43 / 86 = 20,5.$$

Using the information presented in Table 16 and the values of  $k_{ij}^{\text{ôâî ð}}$  calculated above, we find the following statistics

$$\chi^2 = \sum_{i=1}^3 \sum_{j=1}^2 \frac{(k_{ij} - k_{ij}^{\text{ôâî ð}})^2}{k_{ij}^{\text{ôâî ð}}}, \quad (2)$$

i.e.

$$\begin{aligned} \chi^2 &= \frac{(3-12)^2}{12} + \frac{(21-12)^2}{12} + \frac{(7-10,5)^2}{10,5} + \frac{(14-10,5)^2}{10,5} + \\ &+ \frac{(33-20,5)^2}{20,5} + \frac{(8-20,5)^2}{20,5} = 31,08. \end{aligned} \quad (3)$$

The number of degrees of freedom  $df=(n-1)(m-1)=(3-1)(2-1)=2$ , where  $n$  and  $m$  are the number of rows and columns in Table 10.16, respectively.

We put forward two hypotheses: the main hypothesis  $H_0$  : “there is no relationship between attributes X and Y” and the alternative hypothesis  $H_1$  : “there is a relationship between attributes X and Y”. When the hypothesis  $H_0$  is fulfilled, the statistic (2) obeys the distribution law  $\chi^2$  “chi-square”.

Setting the significance level to  $\alpha = 0.01$  and using the information that  $df = 2$ , according to the table of critical points of the distribution  $\chi^2$  [3, p. 465],

we find the value of the critical point  $\chi^2_{(\text{kp}; df, \alpha)}$ , i.e., we have  $\chi^2_{(\text{kp}; 2; 0.01)} = 9.2$ . Since the value of  $\chi^2 = 31.08$  calculated by formula (3) is greater than  $\chi^2_{(\text{kp}; 2; 0.01)} = 9.2$ , we can say with reliability  $= 1 - \gamma\alpha = 0.99$  that there is a relationship between attributes X and Y.

To determine the strength of the relationship between X and Y, you can use Pearson’s correlation coefficient

$$\tilde{N} = \sqrt{\frac{\chi^2}{\chi^2 + N}},$$

or Chuprov’s coefficient of mutual conjugacy

$$T = \sqrt{\frac{\chi^2}{N\sqrt{(m-1)(n-1)}}},$$

or Kramer’s coefficient of mutual conjugacy

$$V = \sqrt{\frac{\chi^2}{N \min(m-1; n-1)}},$$

where  $\chi^2$  is calculated by formula (1),  $n$  and  $m$  are the number of rows and columns in Table 16, respectively.

Usually,  $V > T$ , i.e., the Chuprov's coefficient of mutual conjugacy  $T$  is the most "cautious" in terms of drawing conclusions about the strength of the relationship between  $X$  and  $Y$ .

In our case, using formula (3), we have

$$\tilde{N} = \sqrt{\frac{31,08}{31,08+86}} = 0.515; T = \sqrt{\frac{31,08}{86\sqrt{2}}} = 0.505; V = \sqrt{\frac{31,08}{86}} = 0.601.$$

Analysing the data on conjugacy coefficients, it can be argued that the relationship between characteristic  $X$  and characteristic  $Y$  is strong. In other words, the proposed methodology for teaching CI in IES has an undeniably significant impact on the effectiveness of the process of developing interpreter competence in IES, which is reflected in the results of the post-experimental tests.

The possibility of further research is indicated by the scientific corroboration and practical advancement of the criteria for evaluating the quality of CI in diverse domains.

## References

- Alves, F. and Goncalves, J. L. (2007). Modelling translator's competence: relevance and expertise under scrutiny. In F. Alves (Ed.). *Doubts and Directions in Translation Studies* (pp. 41–55). Amsterdam and Philadelphia: Benjamins.
- Angelli, C. (2000). Interpretation as a communicative event: a look through Hymes' Lenses. *Meta*, 45(4), 580-592.
- Artemchuk, G. I., Kurylo, V. M., and Kocherhan, M. P. (2000). *Metodyka orhanizatsii naukovo-doslidnoi roboty* [Methods of organising research work]. Kyiv: Forum.
- Bajo, M. T. and Padilla, F. (2000). Comprehension Process in Simultaneous Interpreting. In Andrew Chesterman (Ed.). *Translation in Context* (pp. 127–142). Amsterdam and Philadelphia: Benjamins.
- Bannan-Ritland, B. (2003). The Role of Design in Research: The Integrative Learning Design Framework. *Educational Researcher*, 32(1), 21–24. <http://www.jstor.org/stable/3699931>
- Barkovskiy, V. V., Barkovska, N. V., Lopatin, S. O. (2002). *Teoriia imovirnostei ta matematychna statystyka* [Probability theory and mathematical statistics]. Kyiv: SUL.
- Bilukha, M. T. (2002). *Metodolohiia naukovykh doslidzhen* [Research methodology]. Kyiv: ABU.

- Bowen, M. (1980). Bilingualism as a factor in the training of interpreters. In J.E. Alatis (Ed). *Georgetown University Round Table on Languages and Linguistics: Current Issues in Bilingual Education* (pp. 201–207). Washington, DC: Georgetown University Press.
- Chernovaty, L. (2013). *Metodyka vykladannia perekladu* [The methodology of translator/interpreter training]. Vinnnytsia: Nova Knyha.
- Cobb, P., Confrey, J., diSessa, A., Lehrer, R., & Schauble, L. (2003). Design Experiments in Educational Research. *Educational Researcher*, 32(1), 9–13. <http://www.jstor.org/stable/3699928>
- de Groot A. and Christoffels, I. K. (2006). Language control in bilinguals: monolingual tasks and simultaneous interpreting. *Bilingualism, language and cognition*, 9 (2), 189–201.
- Gile, D. (1995). *Basic Concepts and Models for Interpreter and Translator Training*. Amsterdam and Philadelphia: John Benjamins. URL: <http://bit.ly/Benjamins-Daniel-Gile> (access date: 14.10.2017).
- Haig, B. D. (2000). Explaining the use of statistical methods. *American Psychologist*, 55(8), 962–963. <https://doi.org/10.1037/0003-066X.55.8.962>
- Honcharenko, S. U. (1995). *Pedahohichni doslidzhennia* [Pedagogical research]. Kyiv: Lybid.
- Kalina, S. (2005). Interpreting Competences as a Basis and a Goal for Teaching. *The Interpreter's Newsletter*, 10, 3–32.
- Kiraly, D. (2000). *A social constructivist approach to translator education. Empowerment from theory to practice*. Manchester: St Jerome.
- Lobato, J. (2003). How Design Experiments Can Inform a Rethinking of Transfer and Vice Versa. *Educational Researcher*, 32(1), 17–20. <http://www.jstor.org/stable/3699930>
- Lörscher W. (1992). Process-oriented search into translation and implications for translation teaching. *TTR (Traduction, Terminologie, Redaction)*, 1, 145–161.
- Lörscher W. (2012). Bilingualism and Translation Competence. *SYNAPS – A Journal of Professional Communication*, 27, 3-15.
- Malmkjær, K. (2008). Translation Competence and Aesthetic Attitude. In A. Pym, M. Schlesinger, D. Simeoni (Eds.). *Beyond descriptive Translation Studies* (pp. 293-309). Amsterdam and Philadelphia: John Benjamins.
- Newmark, P. A. (1988). *Textbook of translation*. London: Prentice Hall.
- Nord, C. (1991). Text Analysis in Translator Training. In C. Dollerup and A. Loddegaard (Eds). *Teaching Translation and Interpreting* (pp. 39-48). Amsterdam and Philadelphia: John Benjamins.
- PACTE group (2005). Investigating Translation Competence: Conceptual and Methodological Issues. *Meta*, 50(2), 609–619. <https://doi.org/10.7202/0111004ar>
- Pöschaker, F. (2001). Quality assessment in conference and community interpreting. *Meta*, 46(2), 410–425.

- Pöschker, F. *Introducing interpreting studies* (2004). London and New York: Routledge.
- Robinson, D. (2007). *Becoming a Translator. An Introduction to the Theory and Practice of Translation*. N. Y. Routledge.
- Roy, C. *Interpreting as a discourse process*. Oxford: Oxford University Press.
- Sloane, F. C., & Gorard, S. (2003). Exploring Modelling Aspects of Design Experiments. *Educational Researcher*, 32(1), 29–31. <http://www.jstor.org/stable/3699933>
- Wilss, W. (1982). *The Science of Translation*. Tübingen: Gunter Narr.
- Zinukova, N. V. (2017). Usnyi pereklad u zovnishnoekonomichnii sferi: teoriia i metodyka navchannia mahistriv-filolohiv: monohrafiia (Interpreting in the Foreign Economic Sphere: Theory and Methods of Teaching Masters of Philology: A Monograph]. Dnipro: Universytet imeni Alfreda Nobelia).

# CHAPTER 11

## TEACHING BILATERAL TRANSLATION IN THE DOMAIN OF AGRICULTURE

Anna Monashnenko

### **Abstract**

This chapter deals with the teaching of bilateral translation, a multidimensional skill that has become increasingly vital, specifically within the context of the agricultural sector. The study presents a meticulously designed methodology, highlighting the development and implementation of a teaching model tailored to enhance the written translation competence of future philologists specializing in agriculture. The article unfolds in a structured manner, encompassing the following key aspects. Methodology section: the author details a comprehensive experimental framework to systematically analyse the impact of their teaching model. This includes the organization of experimental groups, stages of work, and hypothesis formulation. Experimental section: the study meticulously examines the skills and competence of students before and after the application of their teaching methods. Through a precise evaluation of translation quality, competence levels are quantitatively measured. Statistical analysis: the article presents the results of the pre-experimental and post-experimental sections, supported by extensive statistical analysis. These findings offer insights into the effectiveness of different teaching methods. Implications: the article emphasizes the practical significance of their findings, both for educators and students in the field of agriculture translation. It also suggests avenues for future research and development in the context of translation studies. The article's significance lies in its methodical approach to teaching bilateral translation, particularly in the specialized domain of agriculture. By focusing on language, speech, and a range of competencies, this research paves the way for enhanced understanding of the bilateral translation process. The article concludes by highlighting the potential applications of the model in curriculum development and the creation of new teaching materials, offering a valuable contribution to the field of translation studies.

**Keywords:** agricultural domain, bilateral translation, teaching methodology, translation competence development, translation studies.

### **INTRODUCTION**

Ukraine is moving towards greater integration into the European and global community, which is reflected in the expansion of educational, cultural, and scientific collaborations. In this context, the role of foreign languages as a means of communication between representatives from different countries is becoming increasingly significant. This shift in goals and objectives necessitates changes in teaching methods, approaches, and tools in higher education.

In the pedagogical process, where not only language skills are important but also the ability to act as a mediator between native and foreign language cultures, there's a clear need to enhance the quality of training for future translators.

The profession of a translator demands extensive knowledge, including linguistic, extralinguistic, general cultural knowledge in geography, history, and literature, as well as the specialized knowledge required for translation in specific fields such as agriculture, economics, and politics. The professional perspective of a translator involves a comprehensive understanding of their evolving role in society, intercultural communication, foreign languages, and interpersonal interactions. Therefore, modernizing translator education involves creating conditions that develop a wide range of competencies, which are crucial for a translator's personal and professional growth.

In the context of integrative processes, the training of translators for the agricultural sector is especially important. Ukraine is an agrarian state, with its agricultural lands accounting for 11% of the total area of Europe. The nation's economic development depends significantly on the prospects of this industry. International cooperation in the production and marketing of agricultural products has gained importance since January 2016, when the Free Trade Agreement between Ukraine and the European Union came into effect, allowing the free movement of goods and services between the two parties. Consequently, written communication between multilingual partners in the agricultural sector has intensified, emphasizing the role of translators in this field.

Hence, special attention in the training of future translators is directed towards bilateral translation, which involves written translation from one language to another and vice versa. Proficiency in bilateral translation, essential for professional communication in the agricultural field, includes an understanding of the subject matter, as well as specialized terminology. The translation in this context falls within the realm of scientific and technical writing, characterized by clear presentation, precise definitions, concise language, and the use of industry-specific terminology.

Agricultural texts have unique features, including specialized terminology, professional jargon, and distinct differences between the original text and the translated version. Therefore, becoming a translator in the agricultural field requires not only a solid foundation in linguistics, extralinguistic knowledge,

and general cultural awareness but also the requisite skills, abilities, and experience in specialized translation.

Written translation is a creative and authorial process that demands a high level of equivalence. The original text and the translated text are both fixed, allowing revisions using additional literature or electronic resources.

The specific characteristics of written translation include the ability to compare the translation with the original text, extract additional information from the text, lack of direct communication with communicators, one-way information transfer, emphasis on grammar, and unlimited time for translation. Bilateral translation in the agricultural sector falls under the category of specialized scientific and technical translation, characterized by specific terminology, rich professional jargon, differences between the source and target texts, normative language, and a logical context.

The development of the theory and practice of training future translators is reflected in the works of many scholars such as R. Bruslin (1970), A. Pym (1991); D. Robinson (1997); K. Schaeffner (2001); PACTE (2003; 2005); D. Kelly (2005); T. Hanicheva (2008); O. Köksal and Yürük (2020); L. Chernovaty (2011; 2013; 2014); S. Amelina (2014) and others.

In the current context of European and global integration, there is an urgent need to revise the curriculum for future translators in light of international experience. As Ukraine integrates into Europe, it acknowledges the Council of Europe's recommendations (Hutmacher, 1996), emphasizing the professionalism and knowledge quality of specialists. According to the Council of Europe, specialists should embrace a multicultural perspective.

However, a thorough review of available literature and domestic and international experiences has revealed a shortage of research on teaching bilateral translation in the agricultural sector.

The significance of this research topic stems from several factors:

- Increasing social demand for specialists who can perform high-quality bilateral (English to Ukrainian and vice versa) translation in the agricultural sector.
- Lack of well-established methods of teaching bilateral translation within the agricultural sector.
- Lack of theoretical research on teaching bilateral translation in agriculture.

## RESEARCH BACKGROUND

The study aims to theoretically substantiate and practically develop a model for cultivating written translation competence in future philologists specializing in agriculture.

The research methods include a critical analysis of psychological, pedagogical, linguistic, and methodological literature to establish the theoretical foundations for building a model to foster written bilateral translation competence in future philologists in the agricultural sector.

Modelling, a modern scientific method, is employed in this research. It is based on indirect theoretical and empirical examinations of the object of study and reflects its specific properties. Modelling aids in predicting future events, providing a new perspective on the object under scrutiny.

The creation of a model depends on various factors, including the purpose, methodological approaches, text selection for written translation, course content, academic discipline methods, training stages, exercise systems, and translation evaluation criteria.

R. Tarasenko (2014) presents the results of the terminological analysis of the concept of a “model”: 1) a broad sense - a system that is mentally imagined or materially realised and, reflecting or reproducing the object of the study, is able to replace it so that its study provides a new information about this object; 2) a narrow sense - is an image of a phenomenon with the help of another, more studied, which is easier to understand; 3) simplified theories that allow us to study the relationships between different indicators in the society; 4) scheme, schedule of any object, process or phenomenon used as a simplified replacement. Thus, the model in scientific research is a simplified analogue, the operation of which is similar to the actions of a real object.

Considering the specific structure of this model enabled us to describe and characterize its components. The aim of this study was to theoretically justify, practically develop, and experimentally test the effectiveness of methods for training future philologists in bilateral translation in the agricultural sector.

To achieve this goal, we needed to determine the methodological approaches to the research problem. Considering the specific professional activities of future translators, our study adopted the following methodological approaches: competence, personality-activity, and cultural.

The model has a prognostic aspect, and connects the information image of the present with the theoretical vision of the future. Creating a model is a form of construction, based on the prediction of the components of an abstract image of a reality with unknown properties and relationships - a new system. The study of the model helps to determine the key features of the analysed processes, to trace their dynamics, and to identify structural-functional, causal and genetic links between its elements. Thus, modelling is a method of studying objects by constructing and studying models as the hypothetical systems.

Today, the issue of a model development and the use of modelling as a method of scientific research is particularly acute in the methodology of teaching translation as a poorly developed field of pedagogy. Increasing the interest of scholars in considering various aspects of translation competence requires the creation of modern models of its formation in the process of the professional training of future professionals in higher education. Until recently, the methodology of teaching translation was identical for students of translation and other specialties. In universities, the training of future specialists in various fields was usually carried out using the same teaching methods and techniques.

Reforming the higher education system requires changes in the methodological approaches to the problem. We agree with L. Morska's (2009) remark that "the position that professional translator training is possible in the process of foreign language teaching, without taking into account the model of the specialist, outside the context of a translator's professional activity, in isolation from other professionally relevant knowledge and skills, and in isolation from linguistic, professional and life experience, remains unchallenged".

The scientist considers the model as a multicomponent structure with certain blocks of variable elements that interact with each other and the contextual environment which the translation is performed in. In addition, according to L. Morska (2009), the model assumes that translation is a dynamic process that is carried out in order to solve interlingual and intercultural communicative tasks, which gives the author reason to argue about the purposeful nature of translation. "The model also stipulates that translation competence can be characterized, formed and measured, which gives it the signs of a multilevel process of formation and interactivity."

Thus, scholars insist on creating models for the formation of translation competence, which determine the clarity and predictability of the teacher's actions in the process of teaching translation, the manufacturability and interactivity of the methodology, and the measurability of the research results.

In this study, the object of the modelling was the teaching of written bilateral translation for future philologists in the agricultural sector, and the expected result, respectively - the formation of their translation competence. Thus, the final result is a model for the formation of the written bilateral translation competence of future philologists in the agricultural sector.

The development of such a model depends on many factors: the purpose, the methodological approaches; the principles of the selection of texts for written translation; the content and methods of the academic disciplines which are the basis of the written translation competence of the future philologists in the agricultural sector; the structure of the studied phenomenon; the stages of training and the system of exercises for written translation; the translation evaluation criteria, etc.

Considering the peculiarities of the construction of this model made it possible to describe and characterize its components.

The aim of the study was a theoretical justification, a practical development and an experimental testing of the effectiveness of the methods of training future philologists in bilateral translation in the agricultural sector.

In order to achieve this goal, it was necessary to find out the methodological approaches to the research problem. Considering the specifics of the professional activity of the future translators, the following methodological approaches were chosen in our study: competence, personality-activity and cultural.

Based on these methodological approaches, the foundation for the teaching of future philologists was laid by establishing principles for text selection, ensuring that the chosen texts are relevant, interesting, and offer opportunities for students to realise their translation potential. A review of scientific works (Pasichnyk, 2011; Chernovaty, 2013) aided in identifying text selection principles based on various criteria:

1. Professional Orientation: Selecting texts with significant professional relevance, meeting the need for translating scientific and technical topics, and considering the discourse type of professionally oriented texts. Also, considering the usability principle, which is based on the

frequency of usage and focuses on popular issues and types of texts in printed and electronic publications.

2. Linguistic and Functional Features: Considering the principle of stylistic and genre diversity, which involves choosing texts that showcase genre and stylistic variety. Additionally, ensuring that selected texts adhere to textual and linguistic parameters by featuring appropriate vocabulary and grammar, as well as logical, complete, and coherent presentation.
3. Methodological Support: Prioritizing the role of exercises in teaching and selecting texts that suit individual student characteristics, including volume, language features, and specific information.

Following these principles, various types of texts were differentiated, contributing to the development of translation competence in future philologists in the agricultural sector:

- Thematic texts related to agriculture.
- Texts containing common vocabulary and phrases for practicing translation with various teaching aids.
- Texts with linguistic phenomena that pose translation difficulties, featuring lexical and phraseological units or language expressions that lack equivalents in the target language, as well as differences in local history and socio-cultural contexts.
- Texts exemplifying language variations depending on the genre of the work.
- Texts illustrating various grammatical transformations in the translation process and addressing specific communicative tasks.
- Small-format texts for bilateral translation, emphasizing completeness, coherence, and logic.

The selection of the types of exercises used in our experimental teaching was based on a number of criteria: motivation (motivated, unmotivated); degree of communicativeness (communicative, semi-communicative, non-communicative, speech-oriented); degree of control (fully controlled, partially controlled, with a minimum level of control); direction (receptive, receptive-reproductive and productive); game-orientation (without a game component, with a non-role game component and with a role-play game component); method of organization (frontal, choral, pair, group and

individual exercises); degree of support (verbal, nonverbal, objective, natural, artificial support, without support).

The selected texts and exercises took into account the structure of written translation competence: the communicative component involved the future agricultural sector philologists mastering the linguistics (including the subcompetences: language (knowledge of two languages), speech (knowledge of the types of the speech activities involved in a translation) and socio-cultural (taking into account the social stereotypes of the native speakers, their culture and terminology); The cognitive component encouraged the future specialists to master the subject (availability of the information stock and a certain amount of a semantic field in the agriculture) and information handling (computer skills, ability to search for information on the Internet, the ability to critically evaluate the information found); The activity-reflexive component included mastering text-technological (possession of the translation technology; ability to carry out the bilateral translation in the agricultural sector; the ability to mobilize resources needed for the written translation in the agricultural sector) and interpretive (the ability to mobilize personal resources needed to determine the contextual meaning of the speech means of the source text and their interpretation) competencies.

## **THE SYSTEM OF EXERCISES**

Drawing from the available research (Chernovaty, 2011; Pasichnyk, 2011; Ihnatenko, 2015), three key stages of teaching bilateral translation in the agricultural sector were distinguished: source text analysis, target text production, and target text editing. The exercise system was categorized into three groups according to the above stages, each with specific exercise types.

Considering the purpose and content of each exercise subsystem, we identified groups and subgroups relevant to the development of bilateral translation skills in the agricultural field:

Subsystem 1: Generalization of knowledge in bilateral translation (S1).

Subsystem 2: Development of translation skills (S2).

Subsystem 3: Development of editing skills (S3).

Each of these exercise subsystems addresses specific training goals, facilitating the comprehensive development of bilateral translation competence in the agricultural field.

Thus, subsystem 1 includes 4 groups of exercises intended to: 1) update bilateral translation knowledge (G 1.1.); 2) improve knowledge concerning agricultural terminology (G 1.2.); 3) update subject knowledge of the agricultural domain (G 1.3.); 4) generalize knowledge about the stylistic features of agricultural texts (G 1.4.).

Subsystem 2 has five groups of the exercises intended to: 1) develop lexical translation skills (G 2.1.); 2) develop grammar translation skills (G 2.2.); 3) develop transformational translation skills (G 2.3.); 4) develop translation techniques (G 2.4.); 5) develop skills to perform different types of translation (G 2.5.).

Subsystem 3 includes three groups of exercises intended to: 1) draw linguistic parallels between the source and target texts (G 3.1.); 2) establish the level of equivalence of the source and target texts (G 3.2.); 3) edit linguistic, semantic and stylistic inconsistencies of the source and target texts (G 3.3.).

The system of exercises in the generalised form is presented in Table 11.1.

*Table 11.1.*

The system of exercises

Subsystems of exercises	Groups	Intended for
Subsystem 1. Generalization of knowledge in bilateral translation	G 1.1	Updating bilateral translation knowledge
	G1.2	Improving knowledge of the agricultural terminology system
	G 1.3	Updating subject knowledge of agricultural issues
	G 1.4	Generalizing knowledge about stylistic features of agricultural texts
Subsystem 2. Development of translation skills	G 2.1	Development of lexical translation skills
	G 2.2	Development of grammar translation skills
	G 2.3	Development of skills in translation transformations
	G 2.4	Development of skills to use translation techniques
	G 2.5	Development of the ability to perform different types of translation
Subsystem 3. Development of editing skills	G 3.1	Development of skills to draw linguistic parallels between the source and target texts
	G 3.2	Development of skills to establish the level of equivalence of the source and target texts
	G 3.3	Development of skills to edit linguistic, semantic and stylistic inconsistencies of the source and target texts

## EXPERIMENTAL TEACHING

The system of exercises shown in Table 11.1 was used in the experimental teaching conducted throughout one semester (36 contact hours and 36 hours of independent work) with the participation of four experimental groups (42 students).

The experiment included the following stages:

1. organization (a definition of the experimental tasks, hypothesis formulation, development of teaching materials, selection of the participants);
2. implementation (pre-experimental testing, experimental teaching, post-experimental testing);
3. statement and interpretation of the results (statistical data processing, formulation of conclusions).

The experimental teaching was based on the following hypothesis: bilateral translator training in the agricultural domain will be efficient under the following conditions: The selection of teaching material (based on the original specialised agricultural databases AGORA, AGRIS, AGRICOLA, FSTA, DOAJ, FAO Catalogue On-line) reflects the subject content of the domain; the application of the system of exercises aimed at the gradual development of students' translation skills is on the basis of texts typical for the agricultural sector: *research papers on agricultural topics, reports of agricultural enterprises, catalogues of agricultural products, business letters, contracts, etc.*

The invariable conditions of the experimental teaching included:

1. the duration of the experimental training;
2. the composition of experimental groups (EG), the number and the English proficiency level of the participants before the experiment;
3. teaching materials;
4. testing materials;
5. the teacher who conducted the experiment;
6. the objects of control and assessment criteria.

The experimental variable condition involved the degree to which the teacher controlled and directed students' learning activities: variant A provided for the maximum degree of said control while variant B – the minimum.

The subjects were 42 third-year students of the Faculty of Humanities and Education of the National University of Life and Environmental Sciences of Ukraine. Within variant A, 19 students of experimental groups (EG) 1 and 2 did all the translation exercises at all stages under the teacher's guidance, while 23 students of groups EG 3 and EG 4 (variant B) had substantial freedom in doing the same exercises.

The experiment was conducted in three stages:

*Pre-experimental testing.* This stage aimed to assess the initial level of the participating students' bilateral translation competence. It was conducted to establish a baseline of their translation competence.

*Experimental teaching.* The core of the experiment involved the implementation of the experimental teaching model. The students in groups EG 1 and EG 2 did all the translation exercises according to Variant A, while those in in groups EG 3 and EG 4 – according to Variant B.

*Post-experimental testing.* This stage followed the experimental teaching and aimed to assess the efficiency of the developed teaching model. Student performance in bilateral translation was evaluated on the basis of specific criteria, including the completeness of the translation, the accuracy of rendering the source-text content, lexical accuracy, consistency of terminology, grammatical accuracy, and the stylistic and technical aspects of the target text.

To maintain objectivity and provide individualized assessments, an individual form of control was used (self-assessment cards), allowing for a personalized evaluation of each student's performance. The texts related to agricultural topics were selected for the testing to align with the competence in bilateral translation and selected competencies, such as language, speech, subject-matter, information-related and interpretive skills.

The assessment of the development of the students' translation competence was based on the four criteria mentioned above (completeness of translation; accuracy of rendering the source-text content; lexical accuracy and the consistency of terminology; the grammatical, stylistic and technical appropriateness of the target text). A student could score a maximum of 100 points for all test tasks.

The proposed system of exercises was systematically integrated into the curriculum, covering all stages of the training process. The types of exercises varied depending on the stage and the specific learning objectives.

For example, at the stage of source text analysis, the exercises the students did were motivated, conditionally communicative, individual, minimally controlled, receptive, and without a game component or external support. At the stage of target text production, the characteristics of the exercises changed – they remained motivated and conditionally communicative, but, unlike the previous stage, they were carried out in groups, as well as organised in a way that was productive and partially controlled, with a non-role play component and external support. Finally, in the target text editing stage, the exercises retained some of the features common to the two previous stages (motivated and conditionally communicative character), others – of the first (no game component) and still others – of the second stage (partial control, group performance with external support).

The students of EG 1 and EG 2 (Variant A of teaching) had permanent access to the tutor's assistance in their independent work. The tutor's task was to help students find the optimal way of doing their exercises. In EG 3 and EG 4 (Variant B of teaching), the students edited the target texts independently.

The texts used for the bilateral written translation (from English into Ukrainian and vice versa) in the pre-experimental and post-experimental testing (two contact hours each) were of the same complexity, which provided the opportunity to compare the students' progress and the efficiency of the developed model of teaching.

## **RESULTS AND DISCUSSION**

The assessment of students' translation skills was carried out using Borsuk's (2013) formula, which calculates the acquisition coefficient (AC) as  $AC = Q/N$ , where AC stands for this coefficient, Q is the number of correct answers, and N is the total number of tests. The AC value exceeding 0.7 indicates a satisfactory level of acquisition, 0,8 – good and 0,9 – the excellent one.

Tables 11.2 and 11.3 show the average results of the pre-experimental testing, where the skills of translation from Ukrainian into English and vice versa were assessed.

Table 11.2

Results of the pre-experimental testing (translation from Ukrainian into English)

Group index	Average indicators by individual criteria, in points				The sum of points scored	Average acquisition coefficient
	Completeness of translation	Accuracy of rendering the source-text content	lexical accuracy, consistency of terminology	Grammatical, stylistic and technical aspects		
EG 1	18,6	12,2	13,6	10,4	54,8	0,55
EG 2	19,8	11,7	13,5	10,5	55,5	0,56
EG 3	18,1	12,5	11,1	11,7	53,4	0,53
EG 4	17,9	12,8	12,5	11,2	54,4	0,54
Average	18,6	12,3	12,7	11,0	54,5	0,55

The data in Table 11.2 reveals that the average ACs in all four experimental groups are lower than the minimum sufficient level (0.7), indicating that the students have not mastered yet the skills of bilateral translation in the agricultural domain. Specifically, they have problems in various aspects of professional communication, such as the transfer of source-text information and handling the lexical, grammatical, stylistic, and technical aspects of the target text.

Table 11.3 shows the average results of the pre-experimental testing for translation from English into Ukrainian. These results are also categorized by individual criteria for each experimental group.

Table 11.3

Results of the pre-experimental testing (translation from English into Ukrainian)

Group index	Average indicators by individual criteria, in points				The sum of points scored	Average acquisition coefficient
	Completeness of translation	Accuracy of rendering the source-text content	lexical accuracy, consistency of terminology	Grammatical, stylistic and technical aspects		
EG 1	19,4	13,8	11,4	12,6	57,2	0,57
EG 2	18,2	13,3	13,2	13,0	57,7	0,58
EG 3	19,3	13,4	14,5	12,1	59,3	0,59
EG 4	20,2	12,3	13,9	11,8	58,2	0,58
Average	19,3	13,2	13,3	12,4	58,1	0,58

The data in Table 11.3 indicates that, as in Table 11.2, the average ACs in all four experimental groups are also below the minimum sufficient level of 0.7, which is evidence of the need to develop their skills of bilateral translation in the agricultural domain.

The results of the pre-experimental testing showed that translating from Ukrainian into English was naturally slightly more difficult for the students. Thus, the average AC in the translation from English into Ukrainian is 0.58, while from Ukrainian into English it is 0.55. By groups, the average AC amounts to: EG 1 – 0.56, EG 2 – 0.57; EG 3 and EG 4 – 0.56 in each. The obtained data confirms the approximately similar levels of the bilateral translation skills in groups EG 1, EG 2, EG 3 and EG 4, which range from 0.55 to 0.57, and is proved by  $\varphi$  Fisher's criterion.

Following the experimental teaching, the students were offered the post-experimental testing tasks, the content of which was the translation of texts whose subject matter, volume and complexity corresponded to the same features of the pre-experimental testing, but differed in lexical content. The results of the post-experimental testing are given in tables 11.4 (translation from English into Ukrainian) and 11.5 (translation from Ukrainian into English).

Table 11.4

The results of the post-experimental testing in EG 1, EG 2, EG 3, EG 4 (translation from English into Ukrainian)

Group index	Average indicators by individual criteria, in points				The sum of points scored	Average acquisition coefficient
	Completeness of translation	Accuracy of rendering the source-text content	lexical accuracy, consistency of terminology	Grammatical, stylistic and technical aspects		
EG 1	24,9	23,8	21,8	21,4	91,9	0,92
EG 2	24,5	24,1	20,5	20,8	90,8	0,91
EG 3	23,7	21,5	19,9	18,7	83,8	0,84
EG 4	23,4	22,7	19,0	19,3	84,4	0,84
Average	24,1	23,0	20,3	20,1	87,7	0,88

Table 11.5

The results of the post-experimental testing in EG 1, EG 2, EG 3, EG 4 (translation from Ukrainian into English)

Group index	Average indicators by individual criteria, in points				The sum of points scored	Average acquisition coefficient
	Completeness of translation	Accuracy of rendering the source-text content	lexical accuracy, consistency of terminology	Grammatical, stylistic and technical aspects		
EG 1	23,7	23,4	21,1	20,8	89,0	0,89
EG 2	23,2	24,0	20,2	20,2	87,6	0,88
EG 3	21,8	21,2	18,3	17,9	79,2	0,79
EG 4	21,6	22,1	18,8	18,1	80,6	0,81
Average	22,6	22,7	19,6	19,3	84,2	0,84

The data in Tables 11.4 and 11.5 demonstrate a significant AC increase in all groups. The results of the translation from English into Ukrainian at the end of the experiment (Table 4.4) showed positive dynamics. The AC of the EG 1 and EG 2 subjects (variant A of teaching) increased to 0.92 and 0.91, respectively, while that of EG 3 and EG 4 groups (variant B of teaching) also increased, but the surplus was lower – 0.84 in each of the groups.

The results of the translation from Ukrainian into English remained slightly lower compared to the translation in the opposite direction. The ACs values in all four groups ranged from 0.79 to 0.89. This is obviously due to the fact that the students had a better command of their native language than the foreign one, which contributed to the reduction of some difficulties in the lexical, stylistic and grammatical aspects of the target text.

In order to substantiate the results of the experimental study horizontally, it is necessary to carry out a comparative analysis of the proposed learning models A and B. The tabular data (Table 11.6) shows a narrow range of fluctuations in the experimental groups' learning rate – from 0.82 to 0.91. Moreover, there is a certain pattern: groups EG 1 and EG 2 (variant A of teaching) achieved higher rates (0.91 and 0.90 respectively) than groups EG 3 and EG 4 (variant B of teaching) – 0.82 and 0.83 respectively.

The efficiency of the suggested methodology of teaching was proved by the results of the post-experimental testing. The average values of AC

in groups EG 1 and EG 2, compared to the results of the pre-experimental testing, increased by 1.63 and 1.58 times (from 0.56 to 0.91 and from 0.57 to 0.90 respectively), while their increase in groups EG 3 and EG 4 was slightly smaller – 1.46 and 1.48 times (from 0.56 to 0.82 and from 0.56 to 0.83 respectively).

*Table 11.6*

Comparative results (AC values) of pre- and post-experimental testing in groups EG 1, EG 2, EG 3, EG 4

Groups	pre-experimental testing	post-experimental testing	increased by
EG 1	0,56	0,91	1,63
EG 2	0,57	0,90	1,58
EG 3	0,56	0,82	1,46
EG 4	0,56	0,83	1,48

In order to determine the reliability of the data in Table 11.6 and substantiate our conclusions, we applied the criterion  $\varphi^*$  – *Fisher's angular transformation* for their evaluation. This criterion makes it possible to assess the significance of differences between the percentages of the samples in which the studied effect is recorded.

In our statistical analysis, Fisher's angular transformation criterion was used to compare the percentage of the students in groups EG 1, EG 2, EG 3 and EG 4, who achieved a sufficient AC level (0.7). The purpose of the statistical calculations was to determine the comparative efficiency of the two variants (A and B) of teaching. The preliminary analysis of the post-experimental testing results showed an AC increase in all groups. Therefore, both variants of teaching proved to be effective. At the same time, the AC values were lower in EG 3 and EG 4 compared to EG 1 and EG 2. It should be noted that Fisher's angular transformation criterion involves a comparison of groups that demonstrate the studied effect versus those that do not demonstrate it. Given that the groups that studied under Variant A reached a level above 0.9, while the groups that studied under Variant B did not, this level was taken as an indicator of the presence of a learning effect.

We formulate two statistical hypotheses H0 and H1:

$H_0$ : the share of the students who achieved a learning factor of 0.9 in EG 1 and EG 2 in the post-experimental testing is greater than the one in EG 3 and EG 4;

$H_1$ : the share of the students in EG-3 and EG-4 who achieved a learning factor of 0.9 in the post-experimental testing, is higher than in EG-1 and EG-2.

The data required for the calculation of the criterion  $\varphi^*$  are presented in Table 11.7.

Table 11.7

Average indicators of the pre- and post-experimental testing

Group index	presence of effect			absence of effect			The total number of participants
	number of students	percentage	$\varphi^*$	number of students	percentage	$\varphi^*$	
EG 1, EG 2	14	73,7%	2,065	5	26,3%	1,077	19
EG 3, EG 4	8	34,8%	1,262	15	65,2%	1,880	23
Total	22			20			42

According to the table “Angle values  $\varphi$  (in radians) for different percentages” (Perebyinis, 2013) we find the values  $\varphi$  for the two percentages we received:

$$\varphi_1 (73,7 \%) = 2,065;$$

$$\varphi_2 (34,8 \%) = 1,262;$$

We calculate the empirical value  $\varphi^*_{\text{emп}}$  by formula  $\varphi^*_{\text{emп}} = (\varphi_1 - \varphi_2) \cdot$

where  $\varphi_1$  – the value of the angle that corresponds to a higher percentage;

$\varphi_2$  – the value of the angle that corresponds to a lower percentage;

$n_1$  – the number of the elements of the sample 1;

$n_2$  – the number of the elements of the sample 2. In our case

$$\varphi^*_{\text{emп}} = (2,065 - 1,262) \sqrt{19 \cdot 23} = 0,803 \sqrt{437} = 0,803 \times 20,904 = 16,786$$

$$23 + 19$$

We determine the critical values of the criterion according to the table of the levels of a statistical significance of the different values of the criterion  $\varphi^*$  of Fisher.

$$\varphi^*_{kp} = \begin{cases} 1,64 (\rho \leq 0,05) \\ 2,31 (\rho \leq 0,01) \end{cases}$$

Therefore, the obtained value  $\varphi^*_{em\pi} (2,59)$  is greater than the critical values of the Fisher test for levels of a statistical significance  $\varphi_{0,05} (1,64)$  and  $\varphi_{0,01} (2,31)$

(Fig. 3.1).

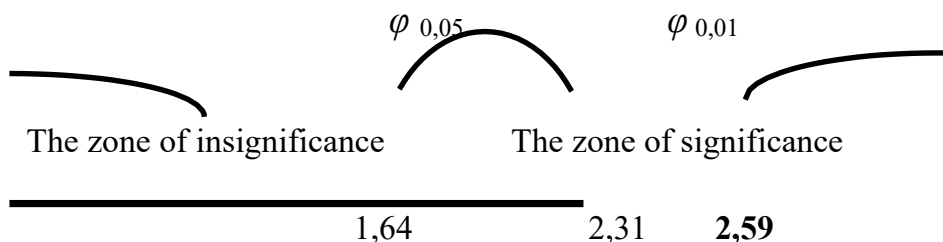


Fig. 11.1. The axis of significance of Fisher's criterion

The obtained  $\varphi^*_{em\pi}$  is in the zone of significance, which testifies to the correctness of the statistical hypothesis  $H_1$  that a share of the persons who achieved a learning factor of 0.9 in EG 1 and EG 2 is higher compared to EG 3 and EG 4. Thus, the obtained statistics confirmed that Variant A of teaching proved to be more effective than Variant B.

The results of the study show that the teaching of bilateral translation in the agricultural domain is related to the development of language, speech, linguistic, sociological, subject-matter, informational, textual and interpretive competencies. The competence approach to teaching bilateral translation involves targeted work that contributes to the students' readiness for professional translation, and is manifested in the development of written speech skills, the ability to use translation techniques; knowledge of agricultural terminology and the capability to use it in context; knowledge of the sociocultural distinctions between the speakers of the two languages and taking them into account in

translation; the use of modern information technologies related to translation; the ability to search for information through global information networks; the development of editing skills; and the ability to mobilize the resources needed for written translation in the agricultural domain.

The theoretical and practical results of the study can be used by teachers in the preparation of textbooks and manuals, as well as curriculum development. The suggested model for teaching bilateral translation in the domain of agriculture offers a systematic approach to teaching and enables the acquisition of essential skills and knowledge. It also provides a structured framework that can be implemented in other spheres as well, which may offer the prospect of further research.

## References

- Amelina, S. (2014). Osoblyvosti redahuvannia perekladiv tekstiv ahhranoi tematyky [Peculiarities of editing texts on agrarian topics]. *Naukovyi visnyk Natsionalnoho universytetu bioresursiv i pryrodokorystuvannia Ukrainy (Scientific Messenger of National University of Life and Environmental Sciences of Ukraine)*, 206, 121–126.
- Borsuk, K. M. (2013). Porivnialnyi analiz pidkhodiv do vyznachennia profesiinoi kompetentnosti suchasnoho perekladacha [Comparative analysis of approaches to defining the professional competence of a modern translator]. *Porivnialna profesiina pedahohika [Comparative professional pedagogy]*, 1, 162-173.
- Bruslin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3). <https://journals.sagepub.com/doi/abs/10.1177/135910457000100301>
- Chernovaty, L. (2011). Osnovy rozrobky systemy vprav dlia navchannia profesiino spriamovanoho pismovoho perekladu [Basics of developing a system of exercises for teaching professionally oriented written translation]. *Pedahohichni nauky: teoriia, istoriia, innovatsiini tekhnolohii [Pedagogical Sciences: theory, history, innovation technologies]*, 6–7 (16–17), 320–329.
- Chernovaty, L. (2014). Zmist poniattia «Fakhova kompetentnist perekladacha» yak skladovoi metodyky navchannia [The content of the concept of "Translator's Professional Competence" as a component of the teaching methodology]. *Visnyk Zhytomyrskoho derzhavnogo universytetu [Messenger of Zhytomyr State University]*, 2 (74), 84–86.
- Chernovaty, L. at al. (2013). *Pereklad u naukovykh doslidzhenniakh predstavnykiv kharkivskoi shkoly [Translation in scientific studies of representatives of the Kharkiv school]*. Vinnytsia, Ukraine, Nova knyha.
- Hanicheva, T.V. (2007). Eksperymentalne doslidzhennia efektyvnosti metodyky navchannia maibutnikh filolohiv usnoho anhlomovnoho dvostoronnoho perekladu u haluzi prav liudyny [Experimental study of the efficiency of the methodology of teaching future philologists of oral English bilateral translation in the field of human rights].

- V.N. Karazin Kharkiv National University Bulletin. Series: Romance and Germanic Philology. Methods of teaching foreign languages*, 782, 188-191.
- Hutmacher, W. (1997). Key Competencies for Europe. Report of the Symposium (Berne, Switzerland, March 27-30, 1996). *A Secondary Education for Europe Project*. Strasbourg: Council for Cultural Co-operation a Secondary Education for Europe, 27–31.
- Ihnatenko, V. (2015). Systema vprav dlia navchannia maibutnikh filolohiv pysmovoho perekladu naukovo-tekhnichnykh tekstiv [*System of exercises for training future philologists in the written translation of scientific and technical texts*]. *Inozemni movy (Foreign Languages)*, 1(81), 26–36.
- Kelly, D.A. (2005). *Handbook of Translator Trainers*. Manchester: St. Jerome Publishers.
- Köksal, O., Yürük, N. (2020). The Role of Translator in Intercultural Communication. *International Journal of Curriculum and Instruction*, 12(1), 327-338. <https://files.eric.ed.gov/fulltext/EJ1249472.pdf>
- Morska, L. (2009). Model perekladatskoi kompetentnosti fakhivtsia u haluzi pravovykh vidnosyn [Model of translation competence of a specialist in the field of legal relations]. *V.N. Karazin Kharkiv National University Bulletin. Series: Romance and Germanic Philology. Methods of teaching foreign languages*, 867 (60), 154-162.
- PACTE (2003). Building a translation competence model. *Triangulating translation: Perspectives in process-oriented research*. Amsterdam and Philadelphia: John Benjamins, 43–66.
- PACTE (2005). Investigating Translation Competence: Conceptual and Methodological Issues / A. Hurtado, A. Beeby, M. Fernández, O. Fox, I. Kozlova, W. Neunzig, M. Presas, P. Rodríguez, L. Romero. *Meta*, 50(2), 609–619.
- Pasichnyk, T. D. (2010). Eksperymentalna perevirka efektyvnosti metodyky navchannia maibutnikh perekladachiv pysemnoho perekladu komertsiiynykh lystiv [Experimental verification of the efficiency of a methodology for teaching future translators to translate commercial letters]. *V.N. Karazin Kharkiv National University Bulletin. Series: Romance and Germanic Philology. Methods of teaching foreign languages*, 62, 190-200.
- Perebyinis, V. I. (2013). *Statystychni metody dlia linhvistiv [Statistical methods for linguists]*. Vinnytsia: Nova Knyha.
- Pym, A. A. (1991). Definition of Translational Competence, applied to the Teaching of Translation. Mladen Jovanovic (ed.) *Translation: A Creative Profession. Proceedings of the 12<sup>th</sup> World Congress of FIT*. Belgrade: Prevodilac, 541–546.
- Robinson, D. (1997). *Becoming a Translator. An Accelerated Course*. London and New York: Routledge.
- Schaeffner, K. (2001). Developing Competence in LSP-Translation. LICTRA 2001. *VII Internationale Fachtagung zu Grundfragen der Translatologie. Translationkompetenz*. Leipzig, 2001, S. 64.

Tarasenko, R. (2014). Teoretychne obgruntuvannia modeli formuvannia informatsiinoi kompetentnosti maibutnikh perekladachiv dlia ahrarnoi haluzi [Theoretical justification of the model of formation of information competence of future translators for the agrarian industry]. *Alfred Nobel University Bulletin. Series: Pedagogy and Psychology*, 2 (8), 81–86.

# CHAPTER 12

## TRANSLATION AND DIDACTIC ASPECTS OF TERMINOLOGICAL PROBLEMS

Leonid Chernovaty

### **Abstract.**

Analysis of 1933 English terminological collocations in four specialized domains (business finance management, pharmacology, foreign language teaching methodology, and internet law) showed that despite the significant differences in their subject areas, the characteristics of their terms are quite similar. There is a clear prevalence of two-word term collocations, the share of which ranges from 72% to 92% in different domains. Adjectival and nominal collocations predominate across all fields, while the shares of the other types do not exceed 10% each. The choice of the techniques to translate English terminological collocations into Ukrainian depends to a certain extent on their structure and the characteristics of their constituent elements. The proportion of calquing is highest when conveying the meaning of two-word English phrases. It also prevails in rendering adjectival collocations while permutation (sometimes in combination with addition and deletion) dominates in rendering nominal collocations.

**Keywords:** terminological collocations, specialized domains, translation from English into Ukrainian, translation techniques, collocation structure.

### **1 Introduction**

This chapter outlines research into the terminological features of the translation of specialised texts from various fields, including foreign language teaching methods, business finance, pharmacology (specifically pharmacodynamics and pharmacokinetics), and internet law.

This kind of research is important for translation studies and the methodology of teaching domain-specific translation. Within this framework, problems relating to the interaction between terminology and translation studies have also become the subject of research, particularly with regard to the institutional status of terminology in translator training programmes (Antia et al., 2005). The development of a translation-oriented typology of specialist texts (Arntz, 1988) could be beneficial to both terminology and translation studies, as it would enable the target audience of a translation to be considered more effectively.

In general, the quality of the translation of specialised texts, including their terminological component, depends crucially on the competence of the translator in question. Many authors (Albir, 2015; Alves, 2007; Beeby et al., 2000, 2003, 2015; Kuznik & Olalla-Soler, 2018) have considered

the issues of the component structure of such competence, in particular its multicomponent model. Abstracting from its other constituents, this section will focus on three components that are directly related to its topic: subject matter, terminology, and translation competencies.

Subject matter sub-competence, which is a component of extralinguistic competence, relates to the knowledge necessary for a general understanding of the conceptual structure of a particular field and its interconceptual relations. Terminological sub-competence (a component of bilingual competence) implies mastery of the bilingual terms that denote relevant concepts related to a particular field. A lack of subject knowledge negatively affects the understanding of the source text (ST) of language mediators (including translators and interpreters), while the absence of relevant terms in their lexicon complicates their attempts to produce an acceptable target text (TT), particularly in oral communication. Ultimately, the choice of translation techniques employed by the translator plays a significant role in the accurate transfer of terms, particularly new ones and terminological collocations.

The intersection of subject, terminological and translation sub-competences is terminology translation techniques. Mastering these techniques is an important part of teaching specialised translation, and applying them is equally important in the translation process. Although there have been many attempts to build a classification system for such techniques, there is no consensus in translation studies on the subject. One of the earliest attempts (Vinay & Darbelnet, 1958) proposed 24 techniques ranging from literal translation to word inversion, and this is still often used as the basis for subsequent modifications.

Over the years, numerous attempts have been made to develop a new, more convenient typology (Margot, 1979; Newmark, 1988; Delisle, 1993; Molina & Hurtado Albir, 2002; Fawcett, 2003). However, in many cases, this has merely involved renaming methods or altering the scope of concepts. For instance, the term *cultural equivalent* in one classification (Margot, 1979) was replaced by *adaptation* in another (Molina & Hurtado Albir, 2002), while *explicitation* (Vinay & Darbelnet, 1958) was replaced by paraphrase (Margot, 1979), explicative paraphrase (Newmark, 1988), addition (Delisle, 1993) and amplification (Molina & Hurtado Albir, 2002) in different approaches.

Such classifications are inconvenient for analysing translations of specialised texts due to the complicated terminology and focus on literary

translation. This creates additional problems for students as the use of foreign language bases for their formation significantly reduces the transparency of the terms' meanings. To overcome this, this study uses a classification system based on an approach developed by Karaban (2004) for scientific and technical translation aimed at Ukrainian students.

Within our classification, the concept of a *translation technique* is defined as any operation involving the ST that results in the TT generation. This concept is generic and encompasses both *techniques* and *transformations*, as distinguished by other authors (Karaban, 2004). For the purposes of this study, the most appropriate criterion for differentiating between types of term appears to be the level at which they are applied – whether a single word or a collocation.

Since in this chapter we are only considering the translation of terminological collocations, we will limit our analysis of translation techniques to those that are relevant to them.

When examining collocations, the emphasis is not on translating each part separately, but on expressing the phrase as a whole. It can be achieved through calquing, i.e. replicating the configuration of a collocation (*late bilingual – пізній білінгв*). Permutation entails changing the order of the words (*attitudinal capability – фактор відношення*), addition implies inserting extra words (*intercultural expertise – between-culture expertise*), while deletion eliminates words from the phrase (*translation studies scholar – translator*).

There may also be cases where two or even three of the latter techniques are used simultaneously. For example, the concurrent application of permutation and addition (*pre-translation stage – засвоєння внаслідок перебування у мовному середовищі*); permutation and deletion (*poorly developed transfer competence – недосконалість вмінь перекладу*); permutation, addition and deletion (*binding theory – теорія принципів і параметрів*); or (rarely) deletion and addition: *strengthening by means of associations – посилення асоціативних зв'язків*.

Therefore, developing these components of professional competence is an essential part of educating and training future translators and interpreters. However, further research is required to describe their content, particularly with regard to the conceptual composition of a specific field and its terminology. Currently, there appears to be a lack of such research,

particularly given the extraordinary diversity of human activities, which makes our study relevant.

## **2. Procedure**

The study aimed to determine the subject knowledge content in the fields of business finance management, pharmacology, foreign language teaching methodology, and internet law. It also investigated the hypothetical dependence of the choice of translation techniques for English terminology on its structure and subject area.

To achieve this goal, a number of tasks needed to be completed: 1) studying the literature to compile a list of subject knowledge components in the aforementioned areas; 2) selecting a terminological corpus from relevant English-language texts to identify elements of said subject knowledge; 3) distributing the selected terminology among structural groups; 4) investigating the hypothetical dependence of translation techniques on the structure of the selected terminology; 5) formulating the study's conclusions. Solving these tasks determined the logic of our research.

### **2.1. Subject knowledge**

Our analysis of specialised literature in each of the above areas has enabled us to identify the key components of background knowledge.

These are listed below.

2.1.1. *Enterprise finance management.* Analysis of specialised literature (Brian, 1997; Nee, 1998) shows that background knowledge for translating relevant English texts requires an understanding of the conceptual structure of five categories: Stages of cash flow budget preparation; anticipated cash inflow acceleration; anticipated cash outflow delays; minimisation of expenses; and cash surplus.

Within these categories, a list of specific concepts was compiled, each of which was denoted by the corresponding English and Ukrainian terminology. In the 'Stages of the cash flow budget preparation' category, for example, the following concepts and terminological units were identified: *cash flow budget, cash inflows, cash outflows, cash flow, sales forecast, inflation, competitive influence, costs of goods sold, operating expenses, major purchases, debt payments, accounts payable, aging schedule, cash*

*flow bottom line, beginning cash balance, ending cash balance, cash flow gaps, accelerate cash outflows, expand line of business, external financing resources, revolving lines of credit, bank loan, trade credit.*

2.1.2. *Pharmacodynamics and pharmacokinetics.* Analysis of related literature (Samura et al., 2010) revealed that translating English texts on pharmacodynamics and pharmacokinetics requires knowledge of a number of key concepts. The pharmacodynamic notions include impaired gastrointestinal absorption, induction of cytochrome P450 (CYP) or transporter activity, inhibition of cellular uptake or binding, and drug metabolism and transport. The pharmacokinetics concepts involve the processes of drug absorption, distribution, metabolism, elimination and excretion, as well as the concentration of the drug delivered to target effector molecules.

Both sets of concepts include their respective parameters. For instance, pharmacokinetic parameters encompass clearance, volume of distribution and bioavailability, as well as the rates at which the agent becomes available and is distributed. Drug distribution, for instance, depends on the placental, blood-brain, and blood-testis barriers, while biotransformation is affected by factors such as metabolites, enzyme systems, genetics, the environment, physiology, and so on. Within these genus categories, various notions have been identified and labelled with appropriate English terms. For instance, within the category ‘Excretion of drugs’, we have distinguished the following notions and terms: *excretion, excretion route, excretory organs and pulmonary excretion.*

2.1.3. *Methodology of teaching foreign languages.* The subject knowledge blocks in this domain were selected from the official English-language document on guidelines for language teaching in Europe (CEFR, 2002) and an influential dictionary (Richards et al., 1992). The material was organised into four categories, each related to a specific area: (1) language use and language users/learners, (2) communicative competence development, (3) linguistic diversification, curriculum and assessment, and (4) approaches and levels of language proficiency.

2.1.4. *Internet law.* Analysis of US regulations (H.R. 1580; H.R. 234) showed that the conceptual structure of this area consists of the following components: Internet jurisdiction; Net neutrality; data integrity; freedom of expression; defamation on the Internet; confidentiality; exchange and protection of information; child privacy protection; geolocation supervision;

personal data protection; intellectual property and copyright; online piracy protection; Internet censorship; child protection against pornography; domain names; e-commerce; e-signatures; virtual currency; regulatory and law-protection issues; consumer rights protection.

## 2.2 Terminological corpus

The material for the analysis is based on terminology corpora selected from English-language texts from each of the above areas, as mentioned in the previous section. In this section, we will focus on analysing the specific features of translating into Ukrainian the English-language collocations, as these are the most numerous category of term selected in all fields.

### 2.2.1. *Enterprise finance management.*

In this area, 128 English-language term collocations were selected for analysis from the original sources (Brian, 1997; Nee, 1998): 92 two-word, 26 three-word, seven four-word and three five-word collocations. The next step was to determine the ratio of translation techniques within each category and make a cross-category comparison, the results of which are presented below.

2.2.2. *Pharmacodynamics and pharmacokinetics.* We subdivided the 409 terminological collocations selected from the specialised literature of Samura et al. (2010) into structural groups based on the number of words in a collocation, as in the previous category (see section 2.2.1). Additionally, we considered the part of speech to which the first element of the collocation belonged. To this end, we identified various structural models within each structural group: *Adj*: adjective; *N*: noun; *Ger*: gerund; *Adv*: adverb; *Part I*: participle I; *Part II*: participle II; *V*: verb; *Prep*: preposition; *Art*: article. Thus, we obtained 201 adjectival, 134 nominal, 43 participial, 27 verbal, and four adverbial structural groups.

2.2.3. *Methodology of teaching foreign languages.* The material used for the analysis was selected from an influential dictionary (Richards, Platt & Platt, 1992) and the Common European Framework of Reference for Languages (CEFR, 2002) and amounted to 932 terminological collocations of different structures. First, we divided these into three groups according to the number of words in a collocation: two-, three- and four-word collocations. Two-word collocations were found to be the most frequent in this sample, accounting for almost ten times the number of collocations found in all other categories combined. As in Section 2.2.2, we then divided the terms in each

category into adjectival, nominal and participial depending on the part of speech of the first word in the collocation.

The most common models used to build linguodidactic terminological collocations were found to be the Adj + N and N + N models. For example, among two-word terms, 52% of collocations have an adjective as the first element, 49% of which are Adj + N collocations. The second most frequent are N + N collocations (35% of the total number of two-word collocations). Although the remaining collocations are based on other models, they tend to be adjectival in nature, since in the Part I + N and Part II + N structures, the first component acts as a modifier.

2.2.4. *Internet law*. The research material consisted of 463 English collocations, selected from the aforementioned sources. These terms were categorised according to the principles described in the previous section (see 2.2.3). Thus, the categories included 263 adjectival, 117 nominal, 52 verbal, 25 participial, and six adverbial term collocations.

## 2.3. Results and discussion

2.3.1. *Enterprise finance management*. Only four translation techniques were used to render collocations in this domain: permutation, addition, deletion, and calquing. Among all translation techniques, calquing has the largest share within the category of two-word collocations – 60% (e.g., *investment opportunities* – інвестиційні можливості). This generally indicates that the structure of more than half of the two-word collocations in this English-Ukrainian sample coincide. In 40% of cases, however, such norms diverge, requiring certain transformations to render the corresponding collocations. The largest share of these transformations (23%) is accounted for by permutation (*cash flow* – рух ліквідності), sometimes together with addition (*sales forecast* – прогнозування обсягу продажу). Simple addition (without permutation) was used in 9% of cases (actual sales – реальні показники продажу), while deletion was used in only 5% of cases (*cash outflows* – витрати).

Although calquing remains the most frequently used translation technique for three-word collocations (*cash conversion period* – грошовий конвертаційний цикл), its usage has almost halved compared to two-word phrases (34% vs. 60%). Conversely, the proportion of permutations (*external financing sources* – зовнішні джерела фінансування) increased by a third

(31% vs. 23%), almost equalling that of calquing. The frequency of addition (*ending cash balance – залишок коштів наприкінці звітнього періоду*) has also increased (19% vs. 8%). The same trend is observed for deletion (*money market funds – інвестиційні фонди*), which has tripled in frequency (16%).

The downward trend in the proportion of calquing is even more pronounced for four-word phrases (*accelerate the cash conversion period – прискорити грошовий конвертаційний цикл*), where it drops to 29%, compared to 34% for three-word phrases and 60% for two-word collocations. Notably, in this category, the shares of calquing and permutation have levelled off for the first time. Interestingly, the frequency of deletion (*avoid costly payroll penalties – уникнути великих штрафів*) has reached the same level as calquing and permutation, at 29% for all three techniques. This indicates the growing role of syntactic transformations as the collocation structure becomes more complex. These transformations also include addition (*anticipate a raise in credit limit – передбачити зниження рівня кредитного ліміту*), which accounted for 13% of four-word collocations

Thus, the choice of translation technique in this area clearly depends on the structure of the English collocation.

Calquing is most prevalent when translating two-word collocations, as in more than half of such collocations, the term-formation norms in the two languages coincide (particularly in *Adj + N* type). However, the possibility of calquing is significantly reduced when even one component is added to the collocation, being preserved only for collocations built on models that are extended variants of the aforementioned two-word structures (e.g. *Adj + Adj + N*). Nevertheless, in two-thirds of cases, preserving the structure of ST collocations is either inappropriate or impossible due to diverging norms in English and Ukrainian, resulting in addition or deletion.

Thus, the share of calquing is inversely proportional to the number of elements in a collocation. Conversely, the share of other translation techniques recorded in our analysis is directly proportional to this number.

The proportion of permutations is lowest in the translation of two-word collocations (23%), but increases by 8% to reach 31% when the number of elements in a collocation increases to three. This proportion practically remains at the same level in the case of four-word collocations (29%). The increase in the proportion of permutations is due to a decrease in

the proportion of calquing for the reasons discussed above. The need for permutations arises from differences in the norms of English and Ukrainian.

Changes in the proportion of additions and deletions are characterised by the same features. The shares of these transformations are directly proportional to the number of components in English collocations. The proportion of deletions consistently increases, from 5% for two-word collocations, to 12% for three-word collocations, to 29% for four-word collocations. Similarly, addition accounts for 8% of two-word collocations, 19% of three-word collocations, and 13% of four-word collocations.

2.3.2. *Pharmacodynamics and pharmacokinetics*. In the adjectival group, calquing was predominant (87%) in rendering the *Adj+N* collocations (*antimalarial drug – протималарійний препарат*), This was followed by permutation (*absorptive site – місце усмоктування*) and addition (*stable drug – стабільна концентрація препарату*), or the simultaneous use of both (*intestinal mucosa – слизова оболонка кишечника*). Deletion (*foreign substances – домішки*) occurred less frequently. Conversely, permutation dominated (66%) in rendering *Adj+N+N* collocations (*alcoholic liver disease – алкогольна хвороба печінки*). Calquing accounted for 17% (*active metabolite NAPA – активний метаболіт NAPA*), while the combined application of permutation and addition accounted for 11%. Simple addition (*prokinetic drug cisapride – прокінетичний лікарський препарат цизаприди*) was used in the remaining 6% of cases.

The only technique used to render the *Adj+N+Prep+N* collocations was calquing, which also prevailed in translating the *Adj+Adj+N* structures (*alternative safe agents – альтернативні безпечні препарати*). The rest were rendered using a combination of permutation and addition (10%, e.g. *highly metabolised drugs – ліки з високим ступенем засвоєння*), or simple permutation (5%, *GI mucosa – слизова оболонка шлунково-кишкового тракту*).

*Nominal collocations*. The most popular technique (55%) for translating *N+N* collocations was permutation (*dosage form – форма дозування*), followed by calquing (25%) (*prescription drug – рецептурний препарат*) and the simultaneous application of permutation and addition (20%). Permutation dominated (75%) in rendering the *N+N+N* collocations (*calcium channel blockers – блокатори кальцієвих каналів*), and the combined use of permutation and addition accounted for 13% (*drug-receptor interaction – взаємодія лікарських препаратів та рецепторів*), while calquing and

deletion are responsible for 6% each (*health food supplements – харчові добавки*).

The most common technique used to translate the *N+Part II+N* collocations (*age-related changes – пов'язані з віком*) was permutation (75%), while the addition of words accounted for the remainder (*prolonged half-life – подовжений період напіврозпаду*). By contrast, calquing was used to render 67% of *Num-N+N* structures, while permutation was used for 33% (*first-order kinetics – кінетики першого порядку*).

*Participial collocations.* The majority of the collocations of the *Part II+N* (71%), *Part II+Adj+N* (75%) and *Part I+N* (63%) models were translated using calquing (*loading dose – ударна доза*), while the rest of the cases were accounted for by permutation (and addition) (*excreted drugs – препарати, що виводяться*). Deletion was applied in 6% of cases (*anticoagulating agents – антикоагулянти*). The collocations of the most diminutive category of adverbial structures were rendered exclusively by means of calquing (*highly reactive – надзвичайно реактивний*). However, the limited number of entries in this category does not allow for substantiated assumptions to be made.

2.3.3. *Methodology of teaching foreign languages.* In the translation of two-word adjectival collocations, calquing dominates, accounting for over 80% of models such as *Adj + N* (*indefinite article – неозначений артикль*) – 86%. The same high proportion of calquing (82%) is observed in the *Part II + N* model (*perceptual processing – перцептивна обробка*). However, when translating two-word nominal collocations, the proportion of calquing falls to 41% for the *N + N* (*group work – групова робота*) model. A similar trend is also observed in the translation of *Part I + N* collocations, with 31% of cases involving calquing (*learning style – спосіб навчання*).

The remaining cases (nominal collocations) are accounted for by transformations, the most common of which is permutation: 50% for model *N + Ger* (*learner training – навчання учня*) and 35% for collocation *Part I + N* (*learning curve – крива навчання*). Other notable transformation frequencies are simultaneous permutation and addition (18% for the *N + N* model (head parameter – параметр головного елемента), and simultaneous permutation, addition, and deletion for the *N + Ger* model (*speech reading – читання з губ*) (17%).

In the case of adjectival collocations, the most frequent transformation is simultaneous permutation and addition (8% in relation to the *Adj + N* model, such as *high vowel – голосний високого піднесення*), and deletion (17% in the case of collocations of the *Adj + Ger* model (*ideographic writing – ідеографія*). In terms of the ratio of translation techniques, 18% of cases of the simultaneous use of permutation and addition were recorded for the *Part I + N* structure (*learning disability – перешкоди при навчанні*). In relation to the *Adj + N* model, addition (4%, e.g. *locutionary act – локутивний мовленнєвий акт*) and permutation (2%, e.g. *lexical access – виклик лексики*) were also used.

There is a link between the number of elements in a collocation and the proportion of calquing: the more components, the lower the calculation share. *Adj + Adj + N* (*International Phonetic Alphabet – міжнародна фонетична абететка*) and *Adj + N + N* (*indirect speech act – непрямий мовленнєвий акт*) models, where the share of calquing decreases to 50% and 25% respectively, show this most clearly. By contrast, the proportion of transformations increases significantly – up to 50% for *Adj + Adj + N* (*half-close vowel – голосний напіввисокого піднесення*) and up to 75% for *Adj + N + N* (*internal consistency reliability – надійність внутрішньої узгодженості*). The former is mostly due to permutation (increase to 50%), and the latter is largely attributable to the augmentation in the proportion of transformations – 50%, including the 25% increase in the simultaneous use of permutation and addition (*low inference category – категорія, що не потребує умовиводу*). Similar tendencies are observed in the terminological collocations of *Part II + N + N* models (simultaneous use of permutation and addition: *limited English proficiency – обмежена компетентність в англійській мові*) and *Adj + Ger + N* (permutation: *left branching direction – лівобічний напрямок розгалуження*).

In the rendering of nominal collocations, which are primarily represented by the *N + N + N* model, calquing is not widely employed due to the infrequency of collocations based on the *N + Prep + Ger model*. A mere 10% of its utilisation has been documented (*Grammar Translation Method – граматико-перекладний метод*). In all other cases, solely transformations are employed; the most common of these is the simultaneous utilisation of both permutations and addition (60%: *language aptitude test – тест для перевірки здібності до вивчення мови*). Simple permutation (20%: *language revitalization programme – програма відродження мови*) and

simultaneous addition and deletion (10%: *Type-Token Ratio* – показник лексичного розмаїття тексту) are the key techniques here. The model *N + Prep + Ger* is characterised by the simultaneous utilisation of permutation, deletion and addition (*transfer of training* – помилковий перенос), which facilitates the translation of the collocations.

It is evident that among the four-word collocations, the nominal ones notably prevail. Only one of them (*N + of + Adj + N*) is rendered by calquing (*language for specific purposes* – мова для особливих цілей). The remainder are rendered by means of transformations, namely permutation (*N + N + N + N*: *Kuder-Richardson Reliability Coefficient* – коефіцієнт надійності Кудера-Річардсона), the simultaneous use of permutation and addition (*N + Prep + art + N*: *language across the curriculum* – навчання мови із залученням усіх предметів) or the simultaneous use of permutation, deletion and addition (*Ger + Prep + art + N*: *reading across the curriculum* – навчання читання із залученням усіх предметів). The adjectival model *Adj + N + N + N* and the similar participial model *Part II + N + N + N* are translated by simultaneous use of permutation and addition (*home-school language switch* – перемикання з мови школи на домашню мову).

2.3.4. *Internet law*. To summarise, the analysis of adjectival collocations indicates that the choice of translation technique is influenced to a certain extent by their structure. It is evident that the vast majority (90%) of two-word collocations based on the *Adj + N* model are rendered by calquing (*interactive media* – інтерактивне середовище), as this model almost completely coincides with the corresponding collocations in Ukrainian. In only 10% of cases are there differences in the principles of formation of the corresponding collocations in the two languages. This leads to the use of transformations, in particular, permutation (*governmental intrusions* – втручання держави), addition (*civil liability* – цивільно-правова відповідальність) or the use of these techniques in combination (*online privacy* – конфіденційність в Інтернеті). The addition of another adjective (*Adj + Adj + N*) does not result in any changes, as this model also fully corresponds with the similar one in Ukrainian – all collocations of this type are translated by calquing (*competitive free market* – конкурентний вільний ринок).

However, the increase in the number of components in the model, as well as the change in the parts of speech to which its components belong, also causes certain changes in the ratio of translation methods. For instance, when translating collocations of the *Adj + N + N* model, the use of calquing drops

significantly (to 32%) and only one in three collocations is rendered with its help (*anonymous online communication* – анонімне онлайн-спілкування). Conversely, the proportion of transformations has increased considerably, with the share of permutations reaching almost half of the total number of structures in this model (48%: *physical transmission facilities* – фізичні засоби передачі). In a further 20% of cases, permutation and addition are used in combination (*social security number* – номер соціального страхування особи). This is due to the differences in the structure of collocations of this type in the two languages.

The data from the analysis of collocations with more than three components confirm the aforementioned assumption that the choice of translation techniques depends on the structure of English collocation. All of them were translated primarily using permutations, or a combination of permutations and addition or deletion. On the other hand, the number of multi-component collocations in the sample is relatively small, and therefore this assumption needs to be further tested on a larger amount of material.

*Nominal collocations.* As with adjectival terms, the choice of translation technique for these collocations depends to some extent on their structure.

Compared to adjectival collocations, the proportion of calquing rapidly decreases, even in two-word collocations, to no more than 44% (model  $N + N$ : *network engineers* – мережеві інженери) or 40% (model  $N + \text{Part I}$ : *sound recordings* – звукозаписи). With the further structural complication of collocations, the possibility of their calquing is practically non-existent.

Transformations are instead characterised by the opposite trend. While deletion is generally used infrequently (10% in relation to the  $N + N + N$  model: *Internet service provider* – Інтернет-провайдер) and 5% in relation to the  $N + \text{prep} + (\text{art}) + N$  *set of motives* – мотиви) model, permutation and addition play a significant role. The frequency of addition alone is not very high, except for the collocations of the  $N$  model + Part I, where its share is 60% (*job posting* – публікування оголошень про пошук роботи).

Addition, as an independent technique, whose share is also relatively small, is observed in only two other models:  $N + N$  (14%: *pen register* – реєстратор телефонних дзвінків) and  $N + \text{prep} + (\text{art}) + N$  (5%: *scope of the license* – обсяг прав на користування). Permutation is more common in relation to the collocations under consideration. In general, the likelihood of its use is directly proportional to the complexity of the source collocation,

as its share consistently increases from 22% (model  $N + N$ : *settlement regime* – режим врегулювання) to 33% in (models  $N + N + N$  (*domain name registrants* – реєстратори доменних імен) and  $N + Adj + N$  (*video rental records* – записи відеопрокату), to 50% (model  $N + Prep. + N + N$ : *Freedom of Information Act* – Закон про свободу інформації) and even up to 100% (models  $N + N + N + N$  (*Internet Network Information Center* – Інформаційний центр мережі Інтернет),  $N + Adj. + N + N$  (*World Wide Web Consortium* – Консорціум всесвітньої мережі) and  $N + Adj + N + N + N$  – in combination with addition (*Defense Advanced Research Projects Agency* – Агентство передових оборонних дослідницьких проєктів США). However, these absolute results require additional verification, given the small number of such collocations in the sample.

A similar trend is observed in the combined use of several transformations at once. As can be deduced from the analysis of the results of those collocation categories, this is also directly proportional to the complexity of English terms. The total share of permutation and addition is 20% in relation to the  $N + N$  model (*Internet traffic* – трафік мережевого обміну даними), but it consistently increases to 43% (when translating terms of the  $N + N + N$  model: *cable subscriber information* – інформація про абонентів кабельного телебачення) and to 67% (in relation to the  $N + Adj + N$  model: *customer financial information* – фінансові дані про клієнтів).

It is also important to note the tendency to replace the translation of the constituent elements of English noun collocations with adaptive transcoding. This trend is independent of the manner in which they are rendered in Ukrainian. Such cases have been recorded in the process of using calquing (*Internet infrastructure* – Інтернет-інфраструктура, *Internet version* – Інтернет-версія), which entails the introduction of models into the Ukrainian language that are not typical for it, where the first noun acts as a modifier.

Conversely, the transcoding of nominal-predicate collocations does not contradict the standards of the target language (*standards of communication* – стандарти комунікації), nor the use of transformations. For instance, the use of permutation can yield acceptable Ukrainian-language collocations, such as *архітектура Інтернету* (*Internet architecture*). The replacement of translation with adaptive transcoding can be seen as a sign of a broader process of internationalisation of terminology, which is more pronounced in relatively new areas, including Internet law.

### 3. Conclusions

An analysis of four specialised fields has shown that the terminology used in each of them includes terms that denote components of the respective subject area. These require special analysis and mastery by future translators during their training in specialised translation in the respective field.

In the course of training, it is recommended to prioritise the translation of terminological collocations. This is because one-word terms are already mostly recorded in dictionaries and therefore cause fewer difficulties during the process of their rendering into the target language.

The analysis of the terminology corpus in each of the four domains has shown that despite the significant differences in their subject areas, the characteristics of their terms are quite similar.

Firstly, there is a clear predominance of two-word term collocations, the share of which ranges from 72% (in pharmacology) to 92% (in foreign language teaching methodology). Secondly, it is evident that adjective collocations predominate across all fields, with a range of 49% in pharmacology to 57% in internet law. The second most frequent type of collocations are nominal ones, where the first word is a noun. These range from 25% in Internet law to 33% in pharmacology. The shares of the other types of collocations (adverbial, participial, etc.) do not exceed 10% each, and therefore these types should be the main focus of teaching.

The choice of the techniques to translate terminological collocations depends to a certain extent on their structure (i.e. the number of words in the collocation) and the characteristics of their constituent elements.

In terms of the number of words in a collocation, the proportion of calquing is highest when conveying the meaning of two-word English collocations, as in more than half of the cases the norms of their formation in the two languages coincide. However, when even one component is added to the collocation, the possibilities of calquing it are significantly reduced. In two-thirds of the cases, preserving the structure of the English collocation is impractical or impossible due to the divergence of norms in English and Ukrainian. This results in the use of permutations, addition and deletion of words.

As the number of elements in the original collocation increases to four, the possibilities of calquing are further reduced. However, in principle, this possibility remains in a third of cases. However, further transformations are required for the remaining collocations.

Thus, the share of calquing is inversely proportional to the number of elements in the collocation, while the share of other techniques recorded in our analysis is directly proportional to this number.

The share of permutation is the lowest in the translation of two-word terms (23%), but when the number of elements in a collocation increases to three, it increases by 8%, reaching 31%, and practically remains at the same level in the case of four-word collocations (29%). The rise in the share of permutations is due to a fall in the share of calquing, as explained above.

The dynamics of changes in the share of addition and deletion are characterised by the same features as those of permutations. In other words, the frequency of these transformations is directly proportional to the number of components of English terminological collocations. It is evident that the proportion of deletions increases consistently from 5% in the translation of two-word terms to 12% in the translation of three-word collocations and to 29% in the case of four-word ones. As a general rule, the same trend applies to addition, with its respective percentages standing at 8% for two-word terms, 19% for three-word collocations and 13% for four-word ones.

With regard to the choice of translation technique depending on the part-of-speech affiliation of the collocation components, the use of calquing in the rendering of adjectival structures is inversely proportional to the level of complexity of the terms, reaching a maximum of 90% in the translation of Adj + N and Adj + Adj + N collocation models. However, the increase in the number of components and the variability of these models has led to changes in the ratio of techniques. The incorporation of a single element can lead to a substantial decrease in calquing, and with increasing structural complexity, it can ultimately become redundant. Conversely, the proportion of translation transformations is directly proportional to the complexity of the terms. It is minimal in the translation of two-word collocations (e.g. Adj + N) and maximal in the translation of multi-component collocations.

The choice of techniques for translating nominal collocations also depends on their structure. The use of calquing is in decline, with this study showing its probability no more than 44%, even concerning two-word terms. With the increasing complexity of structures, calquing is becoming practically obsolete. In contrast, the utilisation of translation transformations is indicative of the reverse trend. The frequency of permutation usage is directly proportional to the complexity of the source collocation, and in many cases, permutation is used in conjunction with addition. The deletion technique is used infrequently.

In the category of participial collocations, the two-component structures of the Part I+N and Part II+N models behave like the adjectival models, i.e. calquing prevails. The extension of these structures by adding adjectival elements (Part II+Adj+N) maintains calquing supremacy, but if a nominal element is supplemented (Part II+N+N), transformations gain the advantage.

It should be noted that these conclusions are preliminary and require further clarification on a larger amount of material, which is the prospect of the further study.

The preparation of this chapter was funded by the EU Next Generation EU through the Recovery and Resilience Plan for Slovakia under the project No. 09I03-03-V01-00148.

## References

- Albir, A. H. (2015). The acquisition of translation competence. Competences, tasks, and assessment in translator training. *Meta*, 60(2), 256-280.
- Alves, F. (2007). Modelling translator's competence: Relevance and expertise under scrutiny. In F. Alves & J. L. Gonçalves (Eds.). *Doubts and Directions in Translation Studies* (pp. 41–55). Amsterdam and Philadelphia: John Benjamins.
- Antia, B. E., Budin, G., Picht, H., Rogers, M., Schmitz, K.-D. & Wright, S. E. (2005). Shaping translation: A view from terminology research. *Meta*, 50 (4). <https://doi.org/10.7202/019907ar>
- Arntz, R. (1988). Steps towards a Translation-Oriented Typology of Technical Texts. *Meta*, 33(4), 468–471. DOI: <https://doi.org/10.7202/001905ar>.
- Beeby, A. Rodriguez, M., Fox, O., Albir, A., Neunzig, H. W., Orozco, M. & Romero, L. (2003). Building a translation competence model. In F. Alves (Ed.). *Triangulating Translation: Perspectives in Process Oriented Research* (pp. 43-68). Amsterdam and Philadelphia: John Benjamins.
- Beeby, A., Castillo, L., Fox, O., Mañas, A. G., Albir, A. H., Kuznik, A. & Romero, L. (2015). Results of PACTE's Experimental Research on the Acquisition of Translation Competence: The Acquisition of Declarative and Procedural Knowledge in Translation. The Dynamic Translation Index. *Translation Spaces*, 4(1), 29-53.
- Beeby, A., Fox, O., Albir, A. H., Neunzig, W., Presas, M., Berenguer, L. & Orozco, M. (2000). Acquiring translation competence: hypotheses and methodological problems in a research project. In A. Beeby, D. Ensinger & M. Presas (Eds.). *Investigating Translation* (pp. 99-106). Amsterdam and Philadelphia: John Benjamins.
- Brian, M. (1997). *Understanding and Controlling Your Finances*. Raleigh, NC: BYG Publishes.

- CEFR (2002). *The Common European Framework of Reference for Languages*. Cambridge: Cambridge University Press.
- Delisle, J. (2013). *La traduction raisonnée. Manuel d'initiation à la traduction professionnelle de l'anglais vers le français*. Ottawa: Presses de l'Université d'Ottawa.
- Fawcett, P. (2003). *Translation and language: linguistic theories explained*. Manchester: St. Jerome Publishing.
- H.R. 234 – 114th Congress (2015-2016): Cyber Intelligence Sharing and Protection Act [Electronic resource]. Access at: <https://www.congress.gov/bill/112th-congress/house-bill/3523/text>.
- H.R. 1580 – 113th Congress (2013-2014): An Act to Affirm the Policy of the USA Regarding Internet Governance. [Electronic resource]. Access at: <https://www.congress.gov/bill/113th-congress/house-bill/1580/text>.
- Karaban, V. I. (2004). *Translation of scientific and technological literature*. Vinnytsia: Nova Knyha.
- Kuznik, A., & Olalla-Soler, Ch. (2018). The acquisition of the instrumental sub-competence. *Across Languages and Cultures*, 19(1), 19-51.
- Margot, J. (1979). *Traduire sans trahir. La théorie de la traduction et son application aux textes bibliques*. Lausanne: L'Age d'Homme.
- Molina, L., Albir, H. A. (2002). Translation Techniques Revisited: A Dynamic and Functionalist Approach. *Meta*, 47(4), 498-512.
- Nee, V. (1998). Norms and Networks in Economic and Organizational Performance. *American Economic Review*, 88, 85-89.
- Newmark, P. A. (1988). *Textbook of translation*. London: Prentice Hall.
- Richards J. C., Platt J., & Platt H. (1992). *Longman Dictionary of Language Teaching and Applied Linguistics*. Bungay: Longman.
- Samura, O B., Kraydashenko, V. I., Samura, B. & Kovalchuk, N. M. (2010). *Clinical pharmacology*. Vinnytsia: Nova Knyha.
- Vinay, J.-P. & Darbelnet, J. (1958). *Stylistique comparée du français et de l'anglais. Méthode de traduction*. Montréal: Didier.

## CHAPTER 13

# TEACHING HETEROVALENT TRANSLATION

Maria Pysanko, Kateryna Shevelko

### **Abstract**

The paper deals with the teaching of heterovalent types of translation, which are viewed as specific modes of mediation where the gist of the source language message can be summarised, simplified or generalised in the target language. The authors define two types of heterovalent translation: abstract translation and gist translation; provide their definitions and characteristics; describe the stages and phases that underlie their process; and specify language transformations and heterovalent translation techniques common for these types of translation. The subsystem of exercises for teaching the heterovalent types of translation is developed. The elements of the system are interrelated; the division of exercises into groups is made considering the stages of abstract translation and gist translation skills and abilities development. The authors also provide a model of the heterovalent types of translation teaching process that can be integrated into the general course on Translation Theory and Practice or serve as an elective course on Translation. The number of hours allocated to the teaching of these types of translation is defined and justified. A pilot syllabus, that can be further adapted according to the teaching hours, terms, and other educational factors, is outlined. The issues of heterovalent translation assessment criteria is discussed; and an assessment criteria scale for abstract translation and for gist translation is suggested.

### **A Teaching Syllabus for Heterovalent Types of Translation**

Being a language intermediary, and providing interlanguage communication by original content interpretation via foreign language, means that a translator sometimes serves as a mediator not only through translation but in other ways as well: the gist of the source language message can be summarised, simplified or generalised in the target language (TL). This kind of mediation is called heterovalent, and as a result, the so-called incomplete (heterovalent) types of translation – abstract (AT) and gist translation (GT) are recognised (Chernovaty, 2013; Jager & Müller, 1982).

Modern translation scholars have not come to a common decision as to the position of AT and GT among the other types of translation. Most of them use a classification wherein AT and GT are viewed as a specific type of language mediation that has been named adaptive transcoding/transferring, as it involves adapting the information in order to interpret it into another form while transferring its content from one language into another. The

transferred information is defined by a special communicative goal rather than its arrangement in the original.

Despite certain differences in both terminology and the system that AT and GT belong to, some translation theorists (Chernovaty, 2013; Jager & Miiller, 1982; Korunets, 2008) recognise AT and GT as specific types of translation. While some scholars see AT and GT as forms of communicative intermediation situated adjacent to translation itself, I. V. Korunets defines AT and GT as a separate type of condensed translation and specifies them as a form of translation (one opposed to interpretation). In our opinion, stipulating AT and GT as heterovalent types of translation (after L. M Chernovaty) (Chernovaty, 2013, p. 43) is most relevant as it takes into consideration their linguistic and phyco-linguistic peculiarities (given further). Table 1 provides a comparative analysis of the different approaches to the systematisation of these translation types.

Let's consider the common features particular for both AT and GT. First, according to the level of correspondence between the source language text (SLT) and the target language text (TLT), AT and GT are characterised by heterovalency (contrary to equivalent types which full translation belongs to), which is expressed via the following distinctive characteristics – the translator uses a SLT as a source for the selection of information necessary for creating a TLT aimed at a different goal from the author's, according to an order or of their own initiative. Thus the translator is not an author or co-author, as in full translation, but rather an author of a new text created as a result of interlingual transformation, and semantic and speech compression. As a result, TLT units substitute far more content than SLT ones (Chernovaty, 2013, p. 195].

The second common feature is a practical objective of AT and GT: to serve as a means of saving time for a published foreign text's consumer, who does not know the foreign language, due to the processed information of the primary source being delivered in the condensed form in their native language. This takes into consideration the concept of information boom - when the reader is simply unable to deal with all the incoming information, he/she often acts as a consumer of information in the form of a compressed secondary text, and uses AT or GT in the form of a short message about the main content of the foreign language text and giving an idea about its topic and subject in the consumer's native language (Korunets, 2008, p. 19).

Based on the characteristics of the AT and GT suggested by different researchers, let us highlight the nature of both types of translation – reducing the amount of source language information while preserving its gist in the target language. Summarising (as well as annotating/abstracting) is not an autotelic/self-contained activity, but a method used to record information in a condensed form.

*Table 13.1.*

**Variants of translation type and form classification according to completeness and methods of the semantic original reproduction**

After I.V.Korunets	After L.M.Chernovaty
I. Translation: 1) Full; 2) Compressed / condensed: a) Gist; b) Adapted; c) Abstract (translation-abstracting); d) selective; II. Interpretation	I. Interpretation. II. Translation: 1) Equivalent; 2) Heterovalent: 1) Abstract; 2) Gist.

However, taking into consideration compression as a process that AT and GT are going through, these two types of translation are performed fundamentally differently comparing to other, “full” types. An abstract (as an AT product) outlines the content of the SL message, just answering the question “What is the text about?”. Due to this process the information is so condensed that it results in a high level of SL message abstraction and generalisation. A summary (as a GT product) conveys the essential content of the issues highlighted in the SLT as well as listing them. Another significant feature comes from a definition of the narration’s objectivity/subjectivity – a summary is based on the key elements extracted from the SLT and is formulated through the author’s viewpoint. The text of an abstract is made up in “one’s own words”, “from the outside”, in the abstractor’s wording. While a summary gets the reader acquainted with the content of the SLT,

replacing it in such a way, an abstract only gives an idea of the topic of the SL message, facilitating a search for further information in the SLT (Krings, 1986).

Defining the notion of annotating and summarising is complicated by the fact that there are a lot of terms used by scholars to stipulate text compression: abstract, précis, summary, outline, retelling, rendering, synopsis, brief, highlights of an article – to indicate the semantic text compression; resumé, summary, rendering, abstract, précis – for summarising; annotation, abstract, resumé – for abstracting. This demonstrates that the notions of abstracting and summarising are often not kept distinct. However, some linguists distinguish these types of work with a text and clearly specify the characteristic features of each one (Korunets, 2008).

Thus, **abstract translation** is a type of heterovalent translation which entails making a SLT abstract in the target language. Its final product should give the reader an idea about the nature of the original (book, article, technical description, manuscript, etc.), its content (the issues that are covered and their sequence, the conclusions the author comes up to), the purpose (who the potential reader is), as well as the length, the narration method, relevance, validity of conclusions and other characteristics of the original. The difference between the abstract and the abstracted text is the main characteristic of the SLT. The text size of the AT does not usually exceed 500 printable characters (30-40 words or 3-4 sentences in some research). The style of AT of a book or article is arbitrary and is determined only by the translator's objective – to give a brief description of the primary source.

Since the main purpose of the abstract is to give the reader an opportunity to decide on further reading of the SLT, it can be considered an independent work, but it does not replace the source. A high degree of generalisation of the information in AT leads to a personal, subjective trace in the abstractor's wording. This, in turn, causes the necessity of introducing clichés and specific evaluative typographic terminology (e.g., *The text deals with...*, *The article is devoted to an important problem of...* etc.).

In this study, the notion of 'abstract translation' stands for giving the main content of articles of different genres in the TL that briefly provides their ideological focus, content, purpose, value etc. Despite the fact that linguists and translation scholars adhere to different principles of classifying abstracts, among all their types (Korunets, 2008; Korzh, 2008) we can highlight two basic ones: bibliographic and reviewing abstracts, which are

the most frequently mentioned in papers on abstracting. The specific nature of the bibliographic abstract is such that its content includes only the input data of the text and thematic headings to which its content belongs. Such abstracts are compiled by library staff and are beyond our research area. Of high relevance to the aim and content of translation training is the ability to develop advanced reading skills, and being a mid-stage on the way to mastering the skill of composing a scientific abstract in perspective makes the reviewing abstract an ideal selection for an objective within this study.

***Gist translation*** of the SLT into the TL is a detailed rendering of the SL message into the TL which employs a significant elimination of excessive, in the translator's opinion, information. In general terms the main objective of gist translation is to provide the listener/reader with the major ideas of the reviewed text in the TL. On the one hand, GT is a special form of summarisation and semantic reduction of the text wherein it serves as a transmitter of information from a SL message via TL means (indirect communication).

In this context, the mechanism of gist translation should not be understood as the compression of the source text information within the original language, and the subsequent translation of such a compressed text into another language.

The key language transformation in the process of GT can be specified as follows: 1) a SLT is transcoded into a secondary one in the TL; 2) the elements of transcoding are not communicatively equivalent, as opposed to full translation, which means they are not characterised by the possibility of bilateral translation; 3) the lack of equivalence is mainly reasoned by their quantitative difference (a number of sentences or even paragraphs of the original are translated with one sentence of the transformed text); 4) the information of the secondary text coincides with the SLT by denotative meaning. Thus, generally this process can be concluded as transcoding the original text (SLT) and producing a secondary one (TLT) where, as opposed to full translation, both processes are performed in conditions of deviation from the significative pragmatic meaning of the SLT and the preservation of the denotative meaning of all its information. In other words, the TLT is formulated by the reviewer in GT, who does not aim at preserving the author's language as far as the vocabulary, syntax and style are concerned (Bassnett-McGuire, 1991).

The summary structure is commonly performed as following: Part I – a detailed characteristic of the translated text (the author’s name, the title, the publishing house, place and time of release, the number of pages); Part II – the general topic or the topical section name; Part III – the main idea of the text (expressed explicitly or implicitly in the SLT); Part IV – the main part (the summary of the content made via specific translation approaches); Part V – conclusions coming from the content of the text (expressed by the author in the SLT or the translator on the basis of the given material); Part VI – the translator’s commentaries on the text’s novelty and value as well as a justification of the author’s conclusions and the mentioning of other works on the same topic. Parts V and VI (the translator’s conclusions) are optional so they will not be considered compulsory within the methods of teaching GT.

Apart from being written in formal and objective language in one’s own words (without adding a personal opinion), stylistic features of the summary include factuality, a generalised narrative, the shortest possible delivery of content, and emphasised logic. These peculiarities define the character of the language means used in summaries. Among the main grammar features of this type of text, researchers distinguish the dominant use of simple sentences, impersonal forms, participial constructions, grammar tense form choice limitations, the use of passive voice, nominalisation, terminology and generalising words, and the absence of subjective evaluation elements (Özdemir, 2018; Shreve, 2006; Vandermeulen, 2020).

Such an outline is provided through special ways (methods of text adaptation) of shortening the material being translated, mainly compression and ellipsis. In the lexical-semantic context, “**compression**” is shortening the text size via eliminating semantically unnecessary elements of the original, using such methods/techniques/translation transformations as *generalisation* (a summary text), *selection* (choosing expressions that summarise a certain part of the text content and are often found at the beginning or at the end of the paragraph), or *syntax and lexical compression* (replacing sentences and word-combinations with shorter expressions). **Ellipsis** describes the process of eliminating excess information (repetitions, details, stylistic means etc.) while translating. Semantic compression of the text is seen as the means of shortening the general amount of words through the removal of unnecessary information, and expressing the ideas with words and constructions characterised by a wider semantic meaning. Semantic collapse is carried out via two main processes: *paraphrase* and *generalisation*.

To create a text summary, the following types of paraphrase are used: *substitute* (the simplest type of paraphrase that includes a pronominal substitute, in particular), *synonymic substitute* (the most common type of paraphrase that can act in both lexical and grammatical aspects), *lexical-grammatical paraphrase* (based on using converse terms, i.e., ways of expressing bilateral subject-object relations). **Generalisation** can be realised through *substitute* according to the principle “type – gender”, a substitute that involves a change in the content of a notion, or *descriptive generalisation* (descriptive condensation) (Maksimov, 2006, p. 111–121).

Having analysed various approaches to the summary classification and having studied variants of their terminology correlation (Korunets, 2001; Korzh, 2008; Kyrychuk, 2019; Lores, 2004; Yakhontova, 2003), we have come to the conclusion that the most common type of summary is one that, besides condensing the information of the text, is aimed at figuring out new factual information in the primary source, and acknowledges it without interpreting, criticising or evaluating the text. *Informative summary* (the English term for «інформативний реферат») or *synopsis* are in full correlation with such a definition, so the object of our study is this type of summary. The reasoning for this is that it conveys the main content of the message, which is the goal of the language intermediation (heterovalent translation), contrary to the evaluative, interpreting, recommending and mixed types of summary. This led to the choice of informative summary for GT teaching, either within an elective course in teaching heterovalent types of translation, or in the case of integrating these types of translation into a general course of translation theory and practice.

The degree of complexity and diversity inherent in the summarising process generates a need for outlining requirements for this type of secondary text, that include: a) full transfer of substantial information – accurate selection and rendering of all main elements of the text, b) style consistency – clear and accurate exposition of ideas preserving expression and structural-stylistic and lexical peculiarities of particular article genres, c) relevance to a defined structure – consistent and system-based narrative of the content according to a certain scheme (model/frame) of the SLT and the selected type of the summary, d) summary scope – the reduction of the general amount of words due to the elimination of excessive information and expressing ideas via words and constructions with wider semantic meaning. Englung Dimitrova B. (2005) sees *précis* translation (a particular type of summarising exercise used for academic purposes) as a hybrid translation-

writing task and correlates it to writing phases rather than translation ones. So this is done in the process of: 1) the pre-writing phase, 2) the writing phase and 3) the post-writing phase, where information is selected from the ST, translated and used to create a new text.

Taking both abstracting and summarising into consideration, we can specify stages that are realised through: 1) perception and comprehension of the text content, 2) content information selection, 3) editing and comparing the text compression result (TLT) to the sample (SLT). In other words, during information processing via compression, a complex and close correlation between SLT comprehension and building a new text occurs that becomes a certain projection of the comprehended material on its basis, which is supported by preservation of the TLT elements in the final product. The relationship between the source text and the new one is expressed in the three phase structure of abstracting and summarising activity. The first phase – *Orienting and Planning* – is carried out within the process of text perception and comprehension. The second phase is the *Programme Implementation*. The third one – *Editing and Checking* – compares the aim and result of the text compression. All three phases comply with the task of carrying out a short, generalised retelling of certain information. The first and the second phases are closely connected, as the conveyed message carries the elements of the perceived information. The third phase has an independent nature. In turn, the first phase has three stages: 1) perception of the external content of the text by fixing logical subjects and predicates; 2) figuring out the internal sense of the text by forming a scheme of transmitted information; 3) identification of the system underlying the internal sense. Phase Two also comprises three stages: 1) internal programming; 2) language means selection; 3) verbal implementation of the programme. The third phase includes: 1) logical structuring; 2) lexical-grammatical arrangement of the abstract. All the selected stages are closely interrelated and interdependent.

According to the researchers, semantic compression and the text's basic semantic reference points' selection make the basis for understanding the text while reading it (Özdemir, 2018). At the same time, the gist's formulation and fixation are the core of the abstracting and summarising process. Thus, abstracting and summarising have considerable educational and assessment potential. Additionally, both the teaching of reading comprehension and the teaching of basic types of semantic compression (abstracting and summarising) have common underlying principles.

The above mentioned phases are implemented in the algorithm of performing AT and GT. Having analysed the works of foreign (Markel, 1984; Meyer, 1990; Katz, 2018; Picken, 1983; Werlich, 1988; Doyle, 2003; Vandermeulen, 2020; Englund Dimitrova, 2005) and Ukrainian (Korzh, 2008; Korunets, 2008; Maksimov, 2006) scientists which relate to the problem of condensed translation in one way or another, we have not found a clear algorithm for drafting the AT of a foreign-language text. The translators can either make up a reviewing abstract of the SLT or translate a ready-made abstract themselves. However, the following question remains unclear in this statement: what language should the abstract be made up in. In cases where this should be done in the source language, the AT will include: 1) composing the abstract itself in the source language and 2) the ‘full’ translation of the generated abstract. Such a method will correspond to equivalent translation, though preceded by text compression in the source language. In other cases, when the translator needs to use methods of compression during translation (similar to GT algorithm), AT corresponds to its eponymic content more and it does not duplicate the functions of equivalent translation.

Thus, the question of the first or the second AT performance order variant’s relevance is still open. That is why the efficiency of both ways was examined experimentally.

As for the sequence of carrying out GT, most linguists agree on the idea that the essential stages of this type of translation are 1) reading the SLT; 2) highlighting the key fragments of the text (parts of the text to be eliminated are put in square brackets); 3) reproduction of the content, structural-stylistic and lexical (primarily terminological) peculiarities of the selected sentences and paragraphs and their transduction into the TL; 4) presentation of the transformed pieces in the TL into a new text in cases where the transitional elements correspond the logic of the idea’s development (Korunets, 2008). The described approach to GT has been named ‘functional’ translation as opposed to ‘selective’. Functional translation has a fundamental distinction at the second stage – the key elements of the text are kept by the translator in the author’s words, resulting in the absence of the necessity to use lexical-semantic, grammatical and stylistic transformations of the SLT (that is, the third stage of the functional approach to GT). The fourth stage includes full translation of the selected elements of the text. Within this approach, all other elements of the text are considered secondary, and are not supposed to be translated. The validity of such translation is based on retaining the accuracy of the key elements in order to keep all the important pieces of primary information.

Therefore, the stages and correspondent communicative actions of the AT and GT process are as follows: 1) SLT analysis, 2) SLT compression, 3) creating TLT and 4) TLT editing. The above mentioned stages are realised through a sequence of actions that serves as a basis of the system of exercises for teaching AT and GT introduced below.

Thus, the most significant characteristics of AT and GT are given in the comparative table (see Table 13.2).

*Table 13.2.*

**Comparative characteristics of heterovalent types of translation**

<b>Abstract translation</b>	<b>Gist translation</b>
A short review of the SLT in the TL that contains information about such features of the primary text as: the SLT nature, its structure, purpose, content, outline quality, topicality, validity of conclusions etc.	A summary of the text in the TL with elimination of excessive information aimed at acquainting the reader with the main ideas of the summarised text.
<b>Abstract as an AT product</b>	<b>Summary as a GT product</b>
<ul style="list-style-type: none"> <li>• lists ideas presented in the SLT;</li> <li>• is characterised by maximum reduction of the SLT;</li> <li>• preserves the main content of the SLT;</li> </ul>	
<ul style="list-style-type: none"> <li>• does not reveal the content of the listed issues;</li> <li>• answers the question "what is the text about?";</li> <li>• characterised by a high level of compression and very limited text size (about 500 printable characters);</li> <li>• tends to cover the utmost of the text's topicality;</li> <li>• contains language estimating clichés;</li> <li>• written in the translator's own words</li> </ul>	<ul style="list-style-type: none"> <li>• reveals the main idea of every listed issue;</li> <li>• can substitute the original;</li> <li>• contains quotations;</li> <li>• made up of the key fragments taken from the SLT;</li> <li>• comprises 1/3-1/5 of the SLT.</li> </ul>

Thus, AT and GT belong to a complex type of analytic-synthetic activity that requires a full understanding of their linguistic and psycholinguistic peculiarities, and clear awareness of the sequence of options to perform them as well as considering the abovementioned features in the process of developing the methodology of teaching AT and GT.

### **Subsystem of exercises for teaching heterovalent types of translation**

The development of pre-service translators' skills and abilities of AT and GT can be ensured by a relevant subsystem of exercises. Taking into account studies that concern the development of the system of exercises for forming professional competence in translation, it should be noted that only a few researchers pay attention to the peculiarities of teaching heterovalent types of translation, specifying particular groups of exercises. Nevertheless, it would be logical to suggest 4 additional types of exercises extant within the general system of teaching translation exercises aimed at developing special abilities in condensed translation: 1) exercises to learn quick TLT content capture, 2) exercises to make a plan of the read text, 3) exercises in text compression, 4) exercises to write conclusions and evaluate the content of the text. Apparently, such types of exercises can be used in the general system of exercises to teach AT and GT if the groups of exercises consider the specifics of these types of translation. For this purpose L. M. Chernovaty offers a separate system for teaching heterovalent translation, particularly AT and GT, and emphasises the key distinction between it and the common (equivalent) type that involves an additional translation phase (SLT compression) apart from the main ones (SLT analysis, creating a TLT and editing a TLT), which correspondently results in recognising another group of skills and abilities that need to be developed (Chernovaty, 2013, p. 243). Such an approach seems to be the most reasonable, so the following subsystem of exercises is based on the stages of translation and a system of correspondent knowledge, skills and abilities required to perform them (see Fig. 13.1).



*Fig. 13.1. The main phases of heterovalent translation*

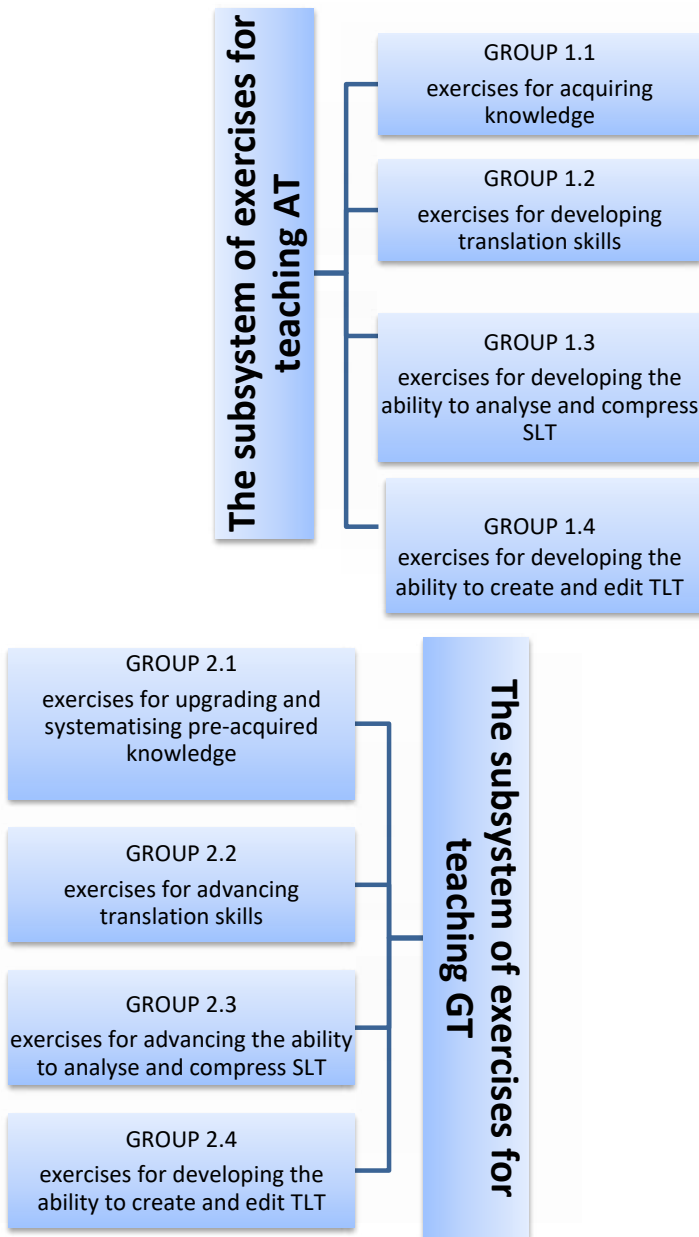
As we can see, teaching AT and GT should be done in stages, where every stage – introductory, preparatory and main – is a part that has an independent significance, exact teaching aim and objective. During the development of methods of teaching translation as a future career, the necessity of including tasks that precede translation activity has been highlighted. ***The Introductory Stage of Teaching AP*** has a theoretical nature. Its aim is to get students accustomed with the features of heterovalent translation, and, in particular: the list of skills, abilities and personal characteristics necessary to perform this kind of language intermediation, the tool base, the ergonomics of the translator’s workplace, and some of the professional challenges and requirements.

*The aim of the Preparatory Stage of Teaching AT* is developing the skills and abilities required to perform particular phases of AT. Implementing this includes accomplishing the following objectives: developing the ability to perform pre-translation analysis of the SLT for further semantic compression, then to create a TLT and edit it. The efficacy of teaching AT and GT also depends on the comprehensiveness of the genre characteristics of the SLT, which closely correlates with the First Phase of AT (the SLT analysis). Given the professional situations where the necessity of AT and GT appears, the texts may be represented by various genres – Journalistic (feature articles/op-eds), popular science (popular science articles), scientific (scholar papers) etc. That is why it seems reasonable to get students acquainted with the linguistic and extralinguistic features of these genres, structural elements of articles belonging to the selected genres (verbal and nonverbal components and their communicative functions), typical difficulties of translation (ways of translating proper names, terms, and abbreviations, nationally biased lexicon, international words and translator’s false friends, achieving equivalency and adequacy in translating the articles’ headlines, titles and the AT of its body etc.) and ways of overcoming them. The Preparatory Stage also considers getting the students acquainted with the various types of reference sources, and developing the abilities required to work with them. The students learn to orient themselves/navigate within dictionary articles of particular electronic and print issues, and make sensible selection of the necessary dictionaries, reference books, encyclopaedias etc. relevant to a translator’s goals. Thus, during this stage the students acquire knowledge and develop necessary skills that, in their turn, become a basis for further AT abilities development.

***The Main Stage of Teaching AT*** is a logical end of the Introductory and Preparatory Stages as it meets the final *aim* of AT teaching methods – developing AT abilities that include those required to analyse and compress SLT and then create and edit TLT.

***The Introductory Stage of Teaching GT*** is based upon the knowledge and skills gained by students during the Introductory and Preparatory Stages of teaching AT. The aim of the Introductory Stage of Teaching GT is developing the skills of using special translation methods/techniques and fulfilling separate phases of this type of translation. The *objectives* of this stage include: developing the abilities of pre-translation SLT analysis, developing the ability to perform SLT compression for further GT, and the ability to create and edit the GT text. The work at this stage is aimed at teaching students to highlight the key fragments in the text, create a logical framework of the article, define types of bonds between the separate semantic elements of the text, use methods of paraphrasing and generalising to compress the SLT semantically and use linking words and phrases in the TLT. Students acquire the translation methods/techniques at the phrase/text levels. ***The Main Stage of Teaching GT*** is identical to the similarly named stage of teaching AT as far as its structure, function and aim. Considering this, we will not characterise it separately. Only the *aim* – to develop the ability to perform GT of articles of different genres – will be mentioned.

So, the stages of teaching heterovalent types of translation have consistent organisation, and the teaching of GT is a logical continuation of the teaching of AT due to the structure, aims and objectives of each stage. It follows that all exercises for teaching AT must have a logical extension in exercises for teaching GT, and be interrelated, which can be achieved by creating correlating the subsystems of exercises for teaching these types of translation (see Fig. 13.2) between the majority of parallel groups of exercises which is evident in the groups' names.



*Fig.13.2. Subsystem of exercises for teaching heterovalent types of translation*

As Figure 13.2 shows, both subsystems are characterised by continuity and interdependence. So, while learning AT (Group 1.1) the students acquire new knowledge, then they update and systematise it while learning GT (Group 2.1). The second pair of groups partially coincides in their content, as each of them includes exercises focusing on specific AT and GT skills – i.e., skills of using special cliché common for abstracts (communicative skills of AT) or paraphrasing skills (communicative skills of GT) apart from exercises for developing/advancing language-related translation skills (vocabulary, grammar). In Groups 1.3 and 2.3 the continuity is realised only in the subgroup of exercises for developing and advancing the ability to analyse the SLT. All the other subgroups have different content, defined by the specifics of each type of translation. Concerning the pair of groups 1.4 and 2.4, the subgroups of exercises for developing the ability to create a TLT that they include have different content and completely different aims while the groups of exercises for teaching students to edit a TLT have similar methods and types of exercises in their basis. The common and different features of both subsystems are displayed in Table 2, which has a list of subgroups and types of exercises representing teaching AT and GT.

*Table 13.2*

### **Exercises for Teaching Heterovalent types of Translation**

<b>Groups of exercises for teaching AT</b>	<b>Groups of exercises for teaching GT</b>
<p><b>GROUP 1.1</b> Exercises for acquiring knowledge</p> <ul style="list-style-type: none"> <li>• Exercises for getting acquainted with the peculiarities of a translator's job</li> <li>• Exercises for getting acquainted with heterovalent types of translation</li> <li>• Exercises for getting acquainted with types of dictionaries and other reference sources</li> <li>• Exercises for acquiring knowledge about the linguistic features of articles of different genres</li> </ul>	<p><b>GROUP 2.1</b> Exercises for updating and systematising of pre-acquired knowledge</p> <ul style="list-style-type: none"> <li>• Exercises for updating and systematising pre-acquired knowledge on the peculiarities of a translator's job and heterovalent types of translation</li> <li>• Exercises for the updating and systematising pre-acquired knowledge on types of dictionaries and other reference sources</li> <li>• Exercises for updating and systematising pre-acquired knowledge on linguistic features of articles of different genres</li> </ul>

<p><b>GROUP 1.2</b> Exercises for developing translation skills</p> <ul style="list-style-type: none"> <li>• Exercises for developing language-related skills of translation</li> <li>• Exercises for developing the communicative skills of AT</li> <li>• Exercises for forming lexicographical skills</li> </ul>	<p><b>GROUP 2.2</b> Exercises for advancing translation skills</p> <ul style="list-style-type: none"> <li>• Exercises for advancing language-related skills of translation</li> <li>• Exercises for developing the communicative skills of GT</li> <li>• Exercises for advancing lexicographical skills</li> </ul>
<p><b>GROUP 1.3</b> Exercises for developing the ability to analyse and compress the SLT</p> <ul style="list-style-type: none"> <li>• Exercises for developing the ability to perform the pre-translation analysis of the SLT</li> <li>• Exercises for developing the ability to semantically compress the SLT</li> </ul>	<p><b>GROUP 2.3</b> Exercises for advancing the ability to analyse and compress the SLT</p> <ul style="list-style-type: none"> <li>• Exercises for advancing the ability to perform the pre-translation analysis of the SLT</li> <li>• Exercises for advancing the ability to semantically compress the SLT</li> </ul>
<p><b>GROUP 1.4</b> Exercises for developing the ability to create and edit the TLT</p> <ul style="list-style-type: none"> <li>• Exercises for developing the ability to create the TLT via AT</li> <li>• Exercises for developing the ability to edit the TLT</li> </ul>	<p><b>GROUP 2.4</b> Exercises for developing the ability to create and edit the TLT</p> <ul style="list-style-type: none"> <li>• Exercises for developing the ability to create the TLT via GT</li> <li>• Exercises for advancing the ability to edit the TLT</li> </ul>

So, the described subsystems of exercises consist of interrelated elements. The division of exercises into groups is made considering the stages of AT and GT skill and ability development.

### **Modelling the Teaching Process of Heterovalent Types of Translation**

As has been mentioned above, teaching heterovalent types of translation can be integrated into the general course on *Translation Theory and Practice* or serve as an elective course on *Translation*. This defines the number of hours allocated to teaching these types of translation. Let us outline a pilot syllabus that can be further adapted according to the teaching hours, terms, and other educational factors.

#### ***A Syllabus for the Teaching of Heterovalent Types of Translation***

## **Abstract Translation**

### ***Preliminary Stage***

#### *Unit 1. Heterovalent Translation*

1. Heterovalent translation, its types and peculiarities, differences from equivalent translation, its place in science, culture, and education. Special features of abstract and gist translation.

2. Informational and technical support in the process of translation. Translator work place ergonomics. Working with digital and paper dictionaries.

### ***Preparatory Stage***

#### *Unit 2. Lexical difficulties in translation*

3. Equivalency and adequacy in translation. Ways of translating proper names (names of foreign firms, companies, corporations, banks, periodicals etc.).

4. Ways of translating nationally biased lexicon.

5. Ways of translating internationalisms. Full and partial internationalisms and ways of their translation. Pseudo internationalisms and ways of their translation. Faux amis (false friends).

6. Ways of translating terms.

#### *Unit 3. Special features of journalistic and scientific genre periodicals*

7. Periodical article classification. Types of periodicals.

8. Op-eds: structure, special features of the genre. Key and secondary structural elements of op-eds. Title, subtitle, illustrations, quotes, captions, callout paragraphs. Functional analysis of secondary structural elements. Highlighting essential information from quotes, captions, callout paragraphs etc.

9. Scholar papers: structure, special features of the genre. Ways of translating scholar papers' titles.

#### *Unit 4. Abstract Translation*

10. The abstract as an outcome of abstract translation: functions, structure, algorithm. The abstract and the functions of its structural elements. Identifying key abstract elements: the title, paper's goals and objectives, subject matter, main and secondary idea, conclusions and author's recommendations.

11. Translation analysis of op-eds and scholar papers. Analysing the lexical, grammatical and stylistic difficulties of the text, and making a logical and semantic plan/frame of the op-ed/scholar paper. Text compression in abstract translation. Identifying key words and phrases in the source language text and drawing up a plan of the op-ed/paper. Defining the op-ed/scholar paper's main and secondary ideas.

12. Target language abstract development. Compiling a hint for abstract development. Writing an abstract in a target language while consulting the hint. Editing a target language text. Other variants of translation analysis aiming at identifying translation mistakes and errors. Editing an abstract translation of an article/scholar paper.

### ***Main Stage***

13. Op-ed/scholar paper abstract translation with/without hint.

14. Editing abstract translation: reading and analysing op-ed/scholar paper abstract translation samples. Self-/peer- abstract translation assessment via checklist.

15. Final Assessment.

### **Gist Translation**

#### ***Preliminary Stage***

##### *Unit 1. Revision.*

1. Heterovalent translation and its types. Lexical difficulties in translation. Linguo-stylistic features of various genre articles/papers. Reference source selection for translation.

#### ***Preparatory Stage***

##### *Unit 2. Text Summarizing Stages and Techniques*

2. Op-ed/scholar paper key elements. Searching for main and secondary information in the source language text. Identifying key phrases in the op-ed/scholar paper and their translation.

3. The logical and semantic frame of the text. Identifying types of coherence and cohesion in semantic text elements and making a logical and semantic plan/frame of the op-ed/scholar paper.

4. Text semantic compression. Microsummarising.

5. Paraphrasing and generalisation.
6. Conjunctions and connecting words as a means of coherence and cohesion. Specifying various functions of coherence and cohesion. Linkers for connecting/contrasting opinions/ideas, listing points, expressing causes/conditions/effects, making conclusions and summarising etc. on a phrase/text level.
7. Using various means of maintaining coherence and cohesion while performing semantic compression.

### ***Main Stage***

#### *Unit 3. Gist Translation*

8. Gist translation. Its purpose, functions and fields of application.
9. Op-ed and scholar paper translation analysis. Identifying key and secondary elements of the op-ed/scholar paper. Analysing a given text's lexical difficulties and ways to deal with them.
10. Op-ed and scholar paper gist translation. Op-ed and scholar paper gist translation sample analysis and comparison.
11. Op-ed and scholar paper gist translation with the help of a pattern frame. Target language text editing. Op-ed and scholar paper gist translation sample analysis and editing.
12. Gist translation editing. Self-/peer- gist translation assessment via checklist. Gist translation editing and assessment.
13. Op-ed/scholar paper gist translation with/without the hint.
14. Editing gist translation: reading and analysing op-ed/scholar paper gist translation samples. Self-/peer- abstract translation assessment on checklist.
15. Final Assessment.

Such a model of teaching heterovalent translation reveals a contentious issue that leads to the development of two methods for teaching AT and GT. The first teaching method assumed the performance of AT and GT through SLT compression in the SL, and its further translation into the TL (SL abstract/summary translation). The second method involved using the TL at the stage of SLT compression (writing the abstract/summary in the TL while compressing the SLT). To determine the more beneficial option, we conducted an experiment that proved the higher efficiency of the second

variant of our methodology: compression of the source text into the target language in the process of abstract and gist translation.

### **Heterovalent Translation Assessment Criteria**

The next step is to define the heterovalent translation assessment criteria used to decide on the more efficient teaching method while the experimental teaching took place.

Having analysed works by L. Chernovaty (2013), M. Doyle (2003), H. P. Krings (1986), B. Vandermeulen (2020) etc. it has been concluded that to determine translation skill level you need to consider such parameters as TLT content, which depends on the translator's SLT understanding, semantic equivalency and adequacy. Taking into account the lack of content distortions, which can lead to a significant drawback in conveying the meaning of the SLT into TLT, also looks justifiable in this context. The next criterion the researchers agree on is accuracy in conveying the SLT author's communicative intentions, and considering the addressee's expectations / recipient's demands (Chernovaty, 2013; Doyle, 2003; Krings, 1986; Vandermeulen, 2020), which requires correspondence to the communicative situation in terms of which the TLT is used. Compliance with this criterion is impossible without taking into consideration the genre and stylistic characteristics of the SLT, which is assessed in terms of the genre and style appropriateness or TLT compliance with the SLT discourse and genre characteristics (Chernovaty, 2013).

Considering the formal (linguistic as opposed to communicative) side of translation, the researchers mentioned above recognise the necessity of taking into account both linguistic accuracy (lexical, grammatical and stylistic equivalency) and extralinguistic arrangement / text organisation.

Viewing AT and GT as specific types of translation which result in the writing of either an abstract or summary in the TL, we can admit that the writing of an abstract/summary and the performance of AT/GT is characterised by a succession in which translation is on top, as it involves more complex skills and abilities that require a more sophisticated system of assessment criteria. Still, writing an abstract/summary and performing AT/GT belong to different types of communicative interaction. Both processes include linguistic transformations that involve SLT transformation and the creation of a qualitatively new TLT. That is why it is so important to take

into account lexical and grammatical accuracy while creating derivative text in order to ensure lexical and grammatical adequacy between the SLT and TLT and avoid distortions in the content. Thus it is appropriate to introduce a ‘translation adequacy and equivalency’ criterion that rewards selection and the use of proper lexical and grammatical means in TL while abstract or gist translating. Taking into consideration the special features of abstract and gist translation, we agree with L. Chernovaty that such translation assessment should be done in compliance with the same principles as those of equivalent translation, but adjusted to the specifics of heterovalent translation. This specificity will be considered in the group of criteria that assess genre appropriateness.

Thus, the essential parameters for AT and GT assessment must be *accuracy in rendering SLT content and logic, TLT genre appropriateness, and TLT linguistic and extralinguistic accuracy*. Vocabulary and grammar appropriateness in translation will be parameters in the group ‘*translation adequacy and equivalency*’. Since spelling and punctuation are not associated with translation adequacy and equivalency, we apply this parameter to the criterion of ‘*TLT extralinguistic organisation*’.

Concerning mathematic interpretation in translation assessment, some scholars suggest taking ‘correct translation’ as a standard, and subtract the points from the highest score substantiating mistakes (Krings, 1986). However, to promote uniformity in ascertaining the quality of the performed task/assignment it seems relevant to score the points in accordance with the criteria defined above. Our assessment scale is given in Table 13.3. According to the table the highest score for AT or GT is 100 points: 25 – for the content adequacy, 40 – for genre appropriateness, 20 – for adequacy and equivalency, 15 – for TLT extralinguistic organisation (See Table 13.3).

Therefore, these four criteria for abstract and gist translation assessment: content adequacy, genre appropriateness, adequacy and equivalency, TLT extralinguistic organisation, allow us to assess the quality of AT or GT objectively.

Table 13.3

**Abstract and gist translation assessment criteria scale**

Abstract translation assessment criteria	Criterion compliance	Score	Total score	Score	Criterion compliance	Gist translation assessment criteria
<b>I. Content Adequacy (25 points)</b>						
• content adequacy	full	5-4	5	5-4	full	• content adequacy
	partial	3-2		3-2	partial	
	poor	1-0		1-0	poor	
• TLT content correspondence to SLT content in:	TLT content correspondence to SLT content in:		20	TLT content correspondence to SLT content in:		
- title	full	5-4		10	Full	- listing all main ideas
	partial	3-2	5	8-4	partial	
	poor	1-0		3-0	Poor	
- aim	full	5-4		10	Full	- logic of presentation
	partial	3-2	5	8-4	partial	
	poor	1-0		3-0	Poor	
- main and secondary idea	full	5-4				
	partial	3-2	5			
	poor	1-0				
- author's conclusions and recommendations	full	5-4				
	partial	3-2	5			
	poor	1-0				

<b>II. Adequacy and Equivalency (20 points)</b>						
• lexical adequacy	full	10-9	10	10-9	full	• lexical adequacy
	partial	8-4	8-4	partial		
	poor	3-0	3-0	poor		
• grammar adequacy	full	10-9	10	10-9	full	• grammar adequacy
	partial	8-4	8-4	partial		
	poor	3-0	3-0	poor		

*Table 3 (continued)*

<b>III. Genre Appropriateness (40 points)</b>						
• use of transduction techniques	full	10-9	10	0-9	Full	• use of transduction techniques
	partial	8-4		8-4	partial	
	poor	3-0		3-0	Poor	
• compliance with arrangement and appropriate use of linguistic means/ cliché common for AT	full	10-9	10	0-9	Full	• use of intertextual links
	partial	8-4		8-4	partial	
	poor	3-0		3-0	Poor	
• lack of personal or evaluative judgments	full	10-9	10	0-9	Full	• lack of personal or evaluative judgments
	partial	8-4		8-4	partial	
	poor	3-0		3-0	Poor	

• lack of secondary information	full	10-9	10	0-9	Full	• lack of secondary information
	Partial	8-4		8-4	partial	
	Poor	3-0		3-0	poor	
<b>IV. TLT Extralinguistic Organisation (15 points)</b>						
• adequacy of the passage organisation and title centred alignment	full	5-4	5	5-4	Full	• adequacy of the passage organisation and title centred alignment
	partial	3-2		3-2	partial	
	poor	1-0		1-0	Poor	
• compliance with spelling and punctuation rules	full	5-4	5	5-4	Full	• compliance with spelling and punctuation rules
	partial				partial	
	poor				Poor	
	full					
• length	400-500 printable characters	5-4	5	5-4	20-30% of SLT	• length
	300-400 printable characters.	3-2		3-2	30-40% of SLT	
	<300 or >500 printable characters.	1-0		1-0	<20% or >40% of SLT	

Table 13.3 presents abstract and gist translation criteria, the assessment scale, and descriptors.

We would like to stress that students need to become familiar with the criteria used to evaluate their translations. For this reason, tables for self- and peer assessment have been worked out. Students can use them while studying. The tables are given below (see Tables 13.4 and 13.5).

*Table 13.4*

**Abstract Translation Self and Peer Assessment Criteria**

1.	Adequacy of the SLT content to the TL abstract	full partial poor	
2.	Adequacy in rendering the title, aim, main idea and conclusions	full partial poor	
3.	Accuracy in rendering proper names, terms, internationalisms, nationally biased vocabulary	full partial poor	
4.	Appropriate use of linguistic means/cliché common for AT	full partial poor	
5.	Compliance with abstract organisation and structure	full partial poor	
6.	Adequacy of the passage organisation, punctuation and title centred alignment	full partial poor	
7.	Length (printable characters)	400-500 300-400 <300 or >500	

Table 13.5

**Gist Translation Self and Peer Assessment Criteria**

1.	Adequacy in rendering the title	full partial poor	
2.	Adequacy of the SLT content to the TL summary	full partial poor	
3.	Accuracy in rendering proper names, terms, internationalisms, nationally biased vocabulary	full partial poor	
4.	TL summary correspondence to SLT author's logic and intentions	full partial poor	
5.	Appropriate use of linguistic means/cliché common for GT	full partial poor	
6.	Linguistic (spelling, syntax, punctuation) accuracy	full partial poor	
7.	Length	20-30% of SLT 30-40% of SLT < 20% or > 40% of SLT	

As a consequence, the results of the research can be used by translation teachers for heterovalent translation elective course development, or by integrating it into general course on Translation: Theory and Practice or serve as a basis for further research that concerns abstract and gist translation.

**Reference**

Bassnett-McGuire, S. (1991). *Translation Studies* (Revised Ed.). London: Routledge

Chernovaty, L. M. (2013). *Metodyka vykladannia perekladu yak spetsialnosti* [*Methodology of Translator and Interpreter Training*]. Vinnytsia: Nova Knyha

Doyle, M. S. (2003). *Translation Pedagogy and Assessment: Adopting ATA's Framework for Standard Error Marking*. The ATA Chronicle I November / December. 21–29. Retrieved from <https://pages.charlotte.edu/michael-scott-doyle/wp-content/uploads/>

sites/264/2020/12/Doyle-Translation-Pedagogy-and-Assessment-Adopting-ATAs-Framework-for-Standard-Error-Marking.pdf

- Englung Dimitrova, B. (2005). *Expertise and Explicitation in the Translation Process*. Amsterdam: John Benjamins
- Jager, G. & Müller, D. (1982). *Kommunikative und maximale Äquivalenz von Texten. Äquivalenz bei der Translation*. Leipzig: Enzyklopädie
- Katz, S. (2018). *National Occupational Standards for Interpreting Review*. Retrieved from [https://www.nrpsi.org.uk/downloads/National\\_Occupational\\_Standards\\_for\\_Interpreting\\_Review.pdf](https://www.nrpsi.org.uk/downloads/National_Occupational_Standards_for_Interpreting_Review.pdf)
- Korunets, I. V. (2001). *Teoriia i praktyka perekladu (aspektyvnyi pereklad) [Theory and Practice of Translation (aspective approach)]*. Vinnytsia: Nova Knyha
- Korunets, I. V. (2008). *Vstup do perekladoznavstva [Introduction to Translation Studies]*. Vinnytsia: Nova Knyha
- Korz, T. M. (2008). *Navchannia studentiv vyshchyykh tekhnichnykh navchalnykh zakladiv anotuvannia anhliiskyykh profesiino oriietovanykh tekstiv [Teaching university students majoring in technology to annotate English professionally oriented texts]*. [Unpublished doctoral dissertation]. Sevastopol Institute of Banking.
- Krings, H. P. (1986). *Was in den Köpfen von Übersetzern vorgeht [Hochschulschrift]*. Bochum Universität.
- Kyrychuk, L. (2019). Strategic approaches to academic paper abstract translation. *Research trends in modern linguistics and literature*, 2, 65-76. Retrieved from <https://rtmll.vnu.edu.ua/index.php/fgh/article/view/50/19>
- Lores, R. (2004). On Research Article Abstracts: from Rhetorical Structure to Thematic Organization. *English for Specific Purposes*, 23(2), 280-302.
- Maksimov, S. (2006). *Praktychnyi kurs perekladu (anhliiska ta ukrainska movy). [Practical Course of Interpreting (English and Ukrainian)]*. Kyiv: Lenvit
- Özdemir, S. (2018). The Effect of Summarization Strategies Teaching on Strategy Usage and Narrative Text Summarization Success. *Universal Journal of Educational Research*, 6(10), 2199-2209. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1192722.pdf>
- Picken, C. (1983). *The translator's handbook*. London: Aslib
- Shreve, G. M. (2006) Integration of Translation and Summarization Processes in Summary Translation. *Translation and Interpreting Studies. The Journal of the American Translation and Interpreting Studies Association*, 1(1), 89-109.
- Vandermeulen, B. (2020). *Précis Translation: Experiences, approaches and performance of third-year students of the Bachelor in Applied Linguistics [Bachelor's thesis]*. University of Antwerp.
- Yakhontova, T. (2003). *Osnovy anhlomovnoho naukovooho pysma: Navch. posibnyk dlia studentiv, aspirantiv i naukovtsiv [Basics of Academic Writing; Manual for students and researchers]*. Lviv: PAIS

# CHAPTER 14

## DISTANCE INTERPRETER TRAINING IN THE DOMAIN OF POWER ENGINEERING

Liudmyla Hureieva

### Abstract

This chapter **aims** to stress the significance of interdisciplinarity in learning, emphasizing its role in combining scientific domains and the emergence of cross-interdisciplinary terminology. The author highlights the importance of understanding industry-specific interpreting, emphasizing the command of professional language terminology. The complexity of terminology, particularly polysemantic terminology, and the concept of interdisciplinary polysemantic terms spanning multiple systems are discussed. The **study explores** the power engineering terminological system, its dependence on interdisciplinary terminology, and its reciprocal influence on other scientific areas. The question of interpreters' occupational challenges, notably the stress factor and psycho-physiological demands, are often neglected while teaching future interpreters, decreasing the efficiency of professional training. In this context, the legal view on high-hazard professions is considered, and the qualities required for interpreters are discussed. The work describes a detailed **experiment** based on an e-learning course for bilateral interpreting, adaptable for various terminology subjects. The experiment's **results** show that blended learning and microlearning principles enhance the terminological competence of future interpreters. The author **concludes** that further research potential lies in applying the methodology to interlingual mediation and specialized communication in diverse scientific fields.

**Key words:** bilateral interpreting, distance learning, e-learning course, experimental teaching, power engineering, specialized terminology.

### Introduction

Modern technology keeps developing rapidly, opening up an infinite number of means of transmitting information, and an interpreter is a crucial participant in this process. Due to these changes, the role of interpreting as a means of communication and support for economic, socio-political and scientific relations among different countries keeps increasing, and training in bilateral interpreting is of particular relevance. At the same time, the convergence of technologies and the blurring of boundaries between different fields in modern research necessitates the ability of future interpreters to reproduce interdisciplinary terminology in interpreting.

It is worth noting that there are almost no specialised interpreter training programmes in Ukraine that provide specialisation courses in specific fields

of science. Moreover, since distance learning is of particular importance in the current European context, and is making the educational process more flexible by providing more opportunities for the professional development of future interpreters, the implementation of blended learning techniques for interpreting in general and for bilateral interpreting, in particular, is a relevant issue.

Interdisciplinarity as a tool for combining scientific domains is an essential aspect of learning, leading to the emergence of cross-interdisciplinary terminology. When teaching bilateral industry-specific interpreting, the students' understanding of the subject and command of professional language terminology become important (Chernovaty, 2021). The terminological system of a particular field of science depends on the structure of the discipline itself, since the terminology of any branch is closely connected to its fundamental concepts. The process of term formation depends on the development, expansion, and novel solutions of theoretical and practical activities in the specific domain.

The updated CEFR Common European Framework of Reference for Language Education (CEFR, 2018), developed by the Council of Europe, proposes the notion of mediation to describe communicative speech activities. Although this notion was introduced back in the 1998 version of the Common European Framework (section 2.1.3), an extended description was added only in the 2018 version, in Appendix 9, "Additional Descriptors" (CEFR, 2018). Furthermore, it is noted that replacing the notion of "four skills" with four activities (reception, interaction, production, mediation) allows the introduction of a new aspect of cross-linguistic mediation containing interpretation (CEFR, 2018). The Recommendations in the mediation dimension clarify the concepts of multilingualism, which is the coexistence of different languages on a social or individual level, and plurilingualism, defined as the dynamic repertoire of the individual learner, which keeps constantly evolving.

Plurilingualism is presented in the CEFR as an unstable competence within which learners' resources in one language may be different by nature from their resources in another language (CEFR, 2018). Nevertheless, the critical point is that polylingualism is characterised by a standard, interconnected repertoire which learners combine with their shared competencies and strategies for completing tasks (CEFR, 2018). Thus, the continuous expansion of the future interpreter's repertoire within the mediation process is essential,

requiring the incorporation of additional elements into their interpreting competence. Furthermore, bilateral interpreting involves mediation in a variety of contexts and settings. In particular, the interpreter often works with a significant time constraint, primarily affecting the search for options for reproducing terminological vocabulary.

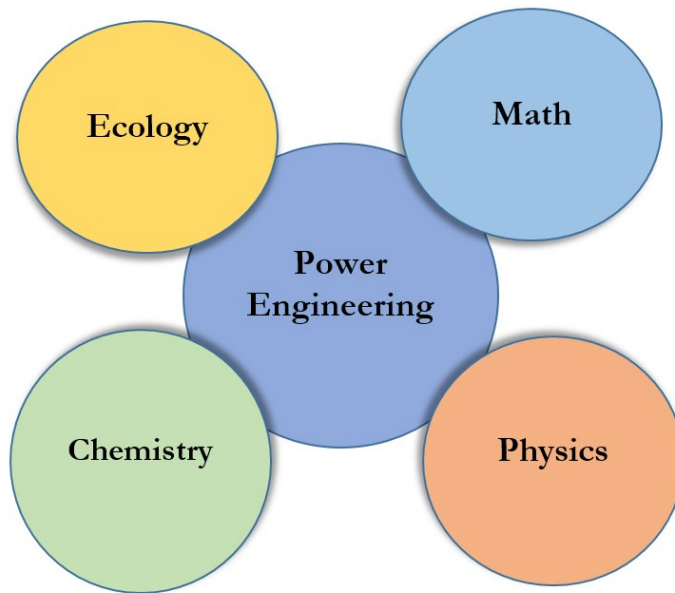
### **Terminological competence**

Within the context of our study, we consider terminological competence as a part of an interpreter's professional competence and view it as the interpreter's ability to understand the meaning of an interdisciplinary term and to use it correctly within the communication context, based on an established knowledge of interdisciplinary polysemantic terms and industry-specific terms, terminological skills and code-switching skills. Furthermore, we understand terminological skills as the expansion and construction of the terminological repertoire (plurilingual repertoire) according to the chosen fields of science.

The terminology of any given subject area always comprises industry-specific, general scientific and interdisciplinary terms. Polysemy dramatically complicates the problem of determining the boundaries of the terminological field. However, the introduction of the concept of an interdisciplinary polysemantic term or an interdisciplinary *polysemant*, i.e., a polysemous term, the meaning of which can be attributed to different fields of knowledge, united by a direct or indirect relationship between the meanings, allows the referral of such terms to several terminological systems simultaneously.

The terminological system of power engineering depends on the discipline structure. Since it is an interdisciplinary domain, its subject matter cannot be separated from the fields of science interlapping and directly affecting it (Fig. 14.1). This allows us to conclude that the conceptual apparatus of power engineering is part of the terminological systems of the sciences it overlaps with, and that, vice versa, power engineering actively uses the terms of other sciences.

Interdisciplinary borrowing is a distinctive feature of communication within the energy sector. The phenomenon of synonymy, thus, reflects not only the subjective desire of the representatives of various scientific schools to bring their style into identical content, but also the objectively inherent tendency of science to refine the naming of the object as we learn its properties and relations to other objects.



*Fig. 14.1. Structure of interdisciplinary terminology.*

The wide range of synonyms in the English energy-related terminological system is also due to the desire of industry specialists to establish the boundaries of the discipline-specific concepts, which results in the enrichment of terminology. Using synonyms, specialists can describe a wide range of concepts comprised of various terms, given their multiple meanings. A large number of synonyms can also be explained by the strong impact of related sciences (chemistry, ecology, mathematics) on the power engineering terminological system.

At the same time, new English terms related to the developments in power engineering constantly emerge, making it difficult to immediately translate them, as they may render concepts that have not yet been marked in Ukrainian. When an adequate equivalent is finally found, however, it may eventually turn out that the new term is already present in the domain-specific terminology, and both terms coexist.

A characteristic feature of the interdisciplinary terminological system is the polysemy of the terms due to the communicative and cognitive features of the particular area: the different levels of competence of communication participants, the ability of representatives of different disciplines to form

different conceptualisations of the same concept, and rapid technological progress, as a result of which a term acquires additional meanings.

### **Distance learning**

As mentioned above, the prospect of improving the efficiency of interpreter training is seen in the integration of distance learning courses into traditional ones (Adams Becker et al., 2017), which would help students to practise and improve their terminological skills of bilateral interpreting at their own pace and in comfortable conditions, giving future professionals a significant advantage in the labour market (Cabrera, 2017).

Leading universities in Ukraine ranked among the top 10 by external independent testing (Igor Sikorski KPI Sotes Rating, 2022) widely use distance learning technologies both for full-time studying and internship, in parallel with traditional classroom learning.

Recently, in addition to universities, distance learning technologies have been introduced by industry-related organisations to improve professional skills. Microlearning is the most versatile form of training considering the shortage of workers' time. For the last ten years, the state enterprise NPC Ukrenergo (NPC, 2022) has implemented and used a simulator of the psychophysiological characteristics of operational dispatch personnel using just such a distance learning course. The experience of introducing microlearning suggests that the abovementioned technology can be successfully applied in interpreter training.

### **Anxiety and interpreter training**

One important issue is often overlooked in interpreter training regarding the issue of occupational selection. A person's professional competence is defined in terms of efficiency, reliability and appropriate performance. Regarding professional suitability, the leading prerequisites for performance reliability are the following:

- psychophysiological features of the personality;
- self-reflection;
- well-developed mechanisms of mental behaviour regulation in extreme conditions.

Moreover, it was already mentioned that interpretation takes place in a rather stressful environment. The law of Ukraine (The List, 2022) defines several professions with high hazards, including work associated with neuro-emotional stress. Although the interpreter profession is not included in this list, there is no doubt that an interpreter must have sufficiently developed psycho-physiological features: nervous and emotional stability, attention, memory, a robust, balanced and mobile nervous system, high work capacity, tolerance under challenging conditions, etc. High information processing rates characterise the interpreter's work due to a large volume of information and significant responsibility for the outcome of the work. Therefore, regular training in the psycho-physiological functions of future interpreters could be one of the promising ways to optimise working conditions.

The first stage of such training is an assessment of the future professional's essential characteristics. One of the traditional ways of assessing stress tolerance is the State-Trait Anxiety Inventory (STAI), a commonly used measure of trait and state anxiety (Spielberger, 1983, 2022). This scale indicates reactive anxiety as a state (current level of anxiety) and as a person's trait (personal anxiety). Personal anxiety is seen as a relatively stable trait inherent in a person. It characterises the degree of emotional tension as a result of stress factors. Thus, it is possible to consider personal anxiety as a fixed characteristic of a specific person, and the state of reactive anxiety – as a dynamic process that differs in time and degree of its manifestation. The questionnaire consists of 40 questions, the first 20 – to assess state anxiety and the subsequent 20 – trait anxiety. The course participants complete the questionnaire before and after working with the psychophysiological simulator in order to determine their stress tolerance. Very high levels of anxiety can be directly linked to the presence of psychological stress and emotional breakdown. A low level of anxiety, on the other hand, characterises the condition as partly depressive, with low levels of motivation. A certain level of anxiety is a typical feature of the individual, and every person has their own optimal level of anxiety, which can be referred to as helpful anxiety. Self-assessment is a critical component of self-control and self-improvement. The questionnaire helps students assess their condition objectively and draw attention to weaknesses with a view to further improvement.

Fundamental research by Womack (1996) concludes that time constraints can be a stress factor in the translation profession, and that they significantly impact the interpreting process and the interpreter's effectiveness. The main stress factors in the interpreting process are considered to be:

- time constraints;
- the speed of speech of participants in mediation;
- a significant information load and the lack of availability of reference materials (Womack, 1996).

Typical bilateral interpreting situations can be roughly divided into psychological situations with semi-rigid and rigid time constraints. The latter psychological situation dominates in the actual interpreting process. The reason for this is that bilateral interpretation is often accompanied by the speaker's inability/unwillingness to adjust to the pace of interpreting, to take into account the particular features of interlingual and intercultural communication, and to push through unsuitable conditions for interpreting such as noise and human-made obstacles, etc. (Saprykin, 2011).

Therefore, the stress factor inherent in a bilateral interpreting situation with rigid time constraints should be considered, as it slows down the interpreting process. However, it may be assumed that when simulating real-life situations in the learning process, one should start with the semi-rigid, time-limited situations as they are more psychologically comfortable.

### **Experimental testing**

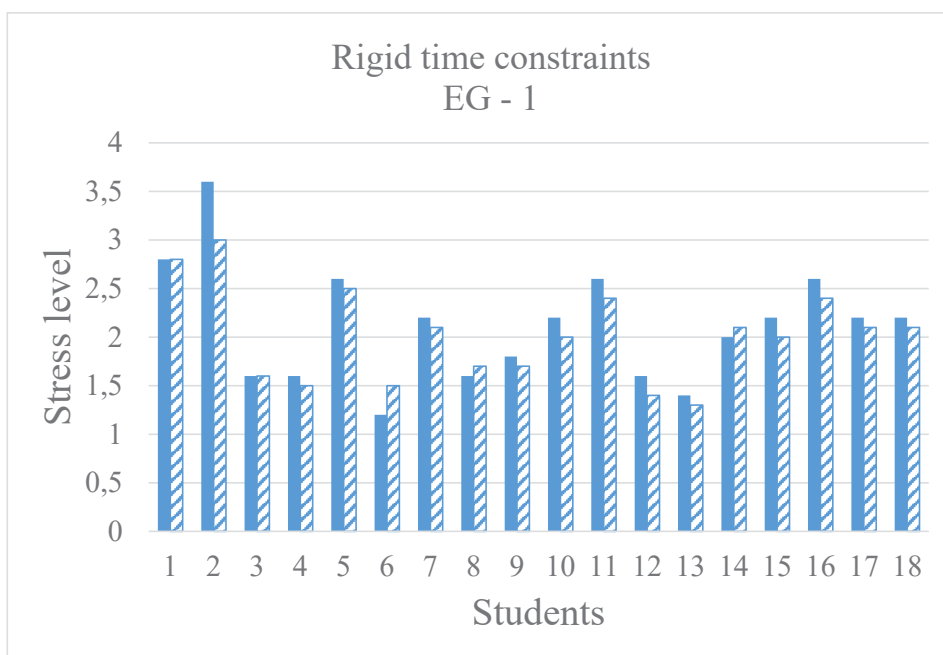
In the process of the experiment, carried out at the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" in 2016-2018, two experimental groups (EG-1 and EG-2) were formed among students in the final stage of the bachelor's degree within the specialism 035 "Philology" (Kolomiets, 2018).

The students of EG-1 worked in a time-limited mode imitating the psychological situation of bilateral interpreting, while the EG-2 students practised within semi-rigid time constraints, which created a more psychologically comfortable situation. During the observation of students' emotional reactions to the test with time-limited tasks, it was noticed that all students in the experimental group were more or less worried about the reduced time available to complete tasks.

Furthermore, the results of the State-Trait Anxiety Inventory (Spielberger, 1983, 2022) and a group discussion with students confirmed that all students who participated in the experiment felt nervous under time constraints and, therefore, less focused and slower to remember new vocabulary. Such results led to the conclusion that in forming terminological competence in

students studying interpreting, time constraints can be considered a stress factor. Consequently, it is necessary to develop their skills to minimise the impact of this factor. Therefore, it was considered necessary to perform bilateral interpreting tasks, considering time constraints as a stress factor in the interpreter’s professional activity.

Figure 14.2 shows the survey results among the EG-1 students who worked in a psychologically uncomfortable situation with severe time constraints in the process of experimental training. The level of the EG-1 students’ anxiety at the pre- and post-experimental stage remains almost the same. Such results led to the conclusion that a rigid time limit at the stage of experimental training allows students to increase their stress resistance level.



*Fig. 14.2. The results of the EG-1 questionnaire before and after the experiment in the mode of rigid time constraint.*

Fig. 14.3 shows the STAI results of the EG-2 students before and after experimental training, who worked with a semi-rigid time limit. In the histogram, the blue bars indicate the stress level before the main stage of

the experiment, and the dashed bars indicate the stress level at the final post-experimental stage. The results suggest that the EG-2 students' stress level significantly differs at the pre-experimental and post-experimental stages. At the post-experimental stage, the EG-2 students' stress level significantly increases, which is the expected reaction to the final test. This indicates that the conditions of semi-rigid time constraints do not increase stress resistance.

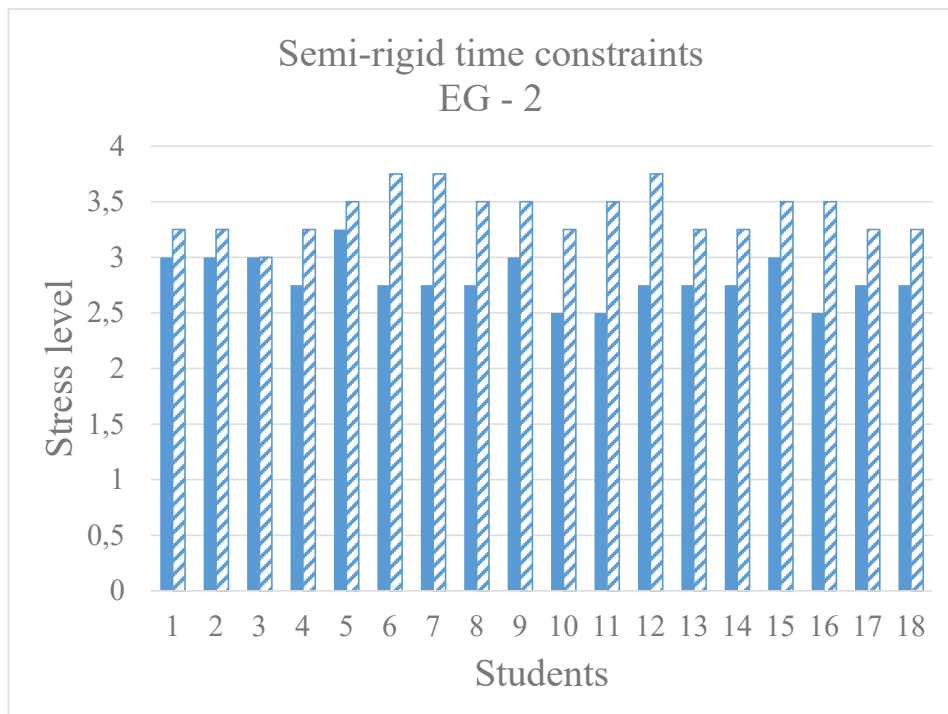
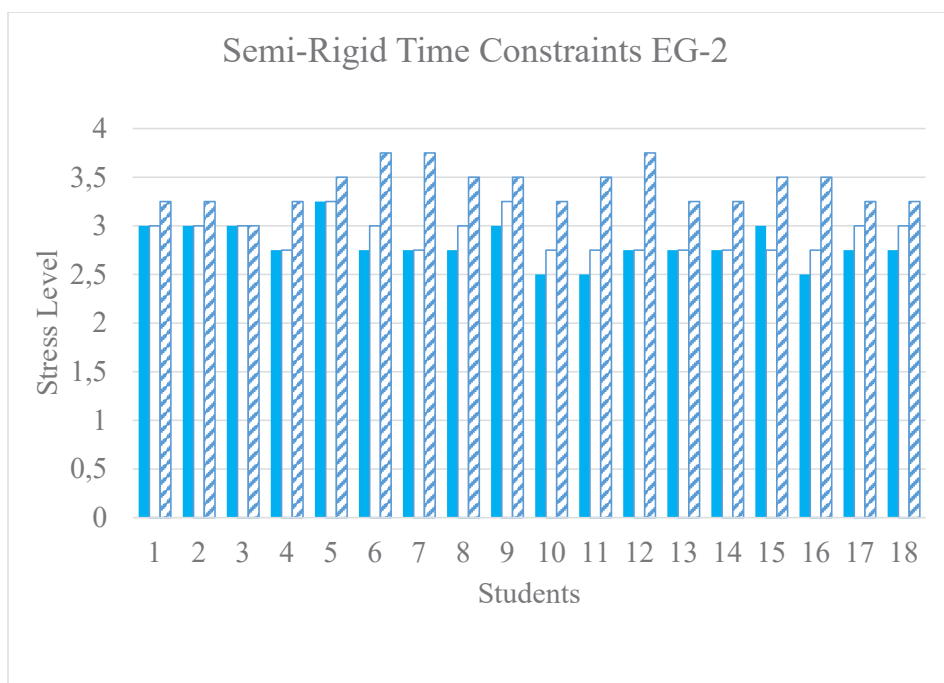


Fig. 14.3. Results of the EG-2 questionnaire before and after the experiment in the mode of semi-rigid time constraints.

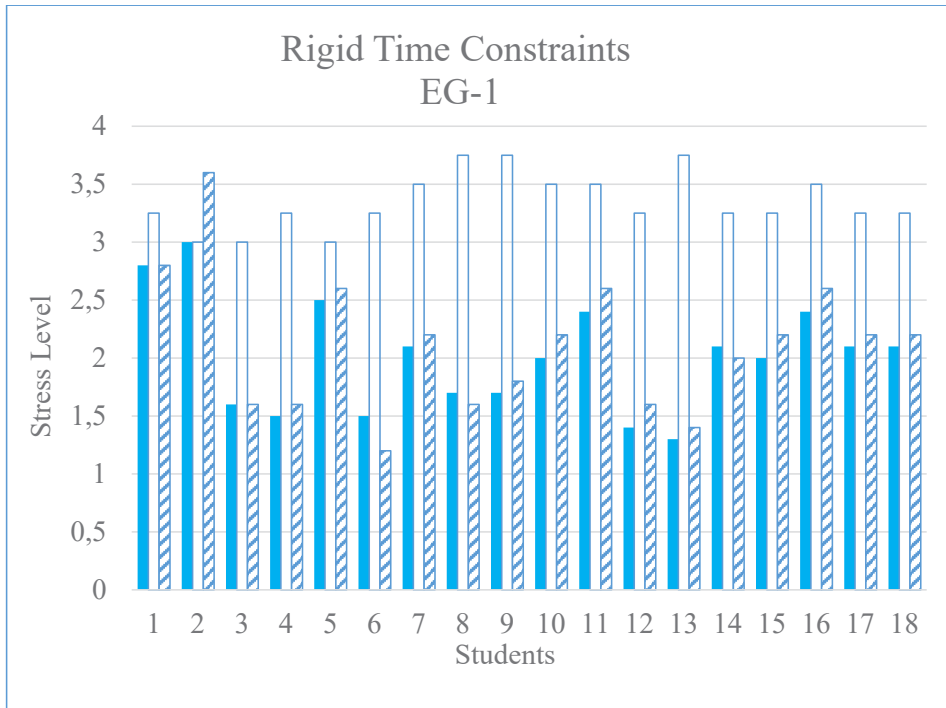
The STAI results below allowed us to determine the level of anxiety separately for each experimental group. For example, Fig. 14.4 presents the results of the second experimental group EG-2. These histograms allow us to conclude that the level of anxiety in the pre-experimental phase, which is marked in blue, and in the process of learning with a semi-rigid time limit, marked in white, remain practically unchanged. However, in the final post-experimental section, dash-barred, the level of excitement increases

significantly, which is the expected reaction of students to the final test and indicates that performing tasks within semi-rigid time limits does not increase stress resistance.



*Fig. 14.4. Results of the EG - 2 questionnaire before, during and after the experiment, who worked in the mode of semi - rigid time limitation.*

The histogram in Fig. 14.5 represents the level of anxiety of EG-1 participants in the pre-experimental and post-experimental tests, as well as in the experimental training. The level of anxiety in the pre-experimental phase (marked in blue) and the one in the process of learning with a strict time limit (marked in white) differ significantly. During experimental training, a strict time limit allows a simulation of the actual process of bilateral interpretation, which creates a psychologically uncomfortable stress situation and significantly increases the level of anxiety. However, in the post-experimental test (hatch-barred), the level of anxiety has significantly reduced, almost to the level of anxiety in the pre-experimental test.



*Fig. 14.5. The results of the EG - 1 questionnaire before, during and after the experiment, who worked in the mode of strict time constraint.*

This suggests that rigid time constraints bring stress into the learning process. However, it eventually results in a significant increase of stress resistance, which is one of the critical factors in bilateral interpretation efficiency. Thus, the development of the future interpreters' professional competence is impossible without considering its psychophysiological component in both traditional and blended e-learning mode.

In the e-learning course for future interpreters suggested here, we used blended learning and microlearning principles, looking for the intensification of students' independent work to develop their terminological competence in bilateral interpretation.

The course software allows for the abandoning of traditional print media, and the use of desktops, smartphones, tablets and laptops, which provide the access to distance learning, focusing students on the latest educational technologies, such as blended learning and microlearning.

Control over the process of teaching interdisciplinary terminology in bilateral interpretation, in accordance with the “Bilateral Interpretation” syllabus, should reflect the degree of the future interpreters’ professional competence development. The author’s experience shows that control alone is not enough to ensure the proper teaching quality, as it does not provide a reverse effect on the learning process. The control data should be adapted to the learning process, i.e., to make decisions regarding possible changes in the learning process by adjusting the time parameters, evaluation criteria, and task formulation. In order to ensure the proper quality of terminological competence development in bilateral interpreting, it is necessary to provide for appropriate process supervision. The latter is understood as the planning, organisation, motivation and control required to develop competence in bilateral interpreting (Fig. 14.6). In the process, three levels of supervision were considered – minimal, medium and rigid. In this context, we talk about teacher supervision, which varies from rigid at the first stage of training to the minimal one – in its final stage.

Interpreting is a highly complex activity, defined as a dynamic process as well as human and social behaviour that results from the experience, learning, and feedback of the interpreter and the client (Cao, 1996). Thus, the learning process supervision, which differs from the control process by recurrence, will have a corrective action on the interpreting learning process.



*Fig. 14.6. Supervision of the Learning Process*

Among the essential functional features of distance learning is the teacher-student feedback in the development of terminological competence in bilateral interpreting. It should also be emphasised that there are no clear boundaries between training, skills development and learning supervision. These are interconnected. Thus, combining traditional classroom techniques with those of a distance course provides an effective tool for the development of future interpreters' terminological competence within the bilateral interpreting context.

Currently, the world community is changing the paradigm of traditional learning in the direction of distance education and blended learning (Adams Becker et al., 2017). Education experts around the world have begun to set new trends in this field. Using the latest learning technologies allows one to involve the latest achievements and update the content of courses to modern requirements.

Considering the theoretical preconditions and difficulties of training future specialists in industry-specific interpreting, a subsystem of exercises built in a distance course with the integrated simulator of psychophysiological functions was developed and tested.

### **Experimental training**

The experimental study was conducted in the 2016-2017 and 2017-2018 academic years at the Department of Theory, Practice and Translation of English, within the Faculty of Linguistics at the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" and was carried out in three stages. As part of the study, an e-learning course with microlearning elements for developing terminological competence was designed for students of Igor Sikorsky KPI.

Before the experiment, the optimal number of students who were to take part in the experiment was calculated, provided that the maximum permissible error did not exceed 3%. In order to determine said number, a small group of students was previously trained according to the developed methodology. The learning coefficient was calculated using the following formula:

$$k = \frac{A}{n}, \quad (1)$$

where  $k$  is the number of points for one correctly performed task,  $A$  is the maximum possible number of points for this task.

To determine the learning coefficient for all tasks used a similar formula:

$$K = \frac{Q}{N}, \quad (2)$$

where  $Q$  is the total number of points for all tasks,  $N$  is the maximum number of points for all tasks.

Next, the standard deviation of the obtained results was calculated by the following formula:

$$\sigma = \sqrt{\frac{1}{n-1} \sum (K_i - \bar{K})^2}, \quad (3)$$

where  $K_i$  is the learning coefficient, and that of a student,  $\bar{K}$  is the average value of the learning coefficient in the group,  $n$  is the number of students in the group.

According to calculations,  $\sigma = 0.164$ .

The next step was to determine the value of the Student's T-Distribution for this group at a confidence probability  $p=0,95$ :  $t_p = 2,262$ .

Thus, the optimal number of students:

$$n = \frac{t_p^2 \sigma^2}{\varepsilon^2} = 68. \quad (4)$$

Thus, the experimental training involved 68 fourth-year students – future interpreters of the speciality 035 “Philology” who were distributed among two experimental groups (EG-1 and EG-2).

In order to facilitate the students’ work during the course, detailed instructions were developed for each task with explanations and screenshots. Furthermore, due to the features of the Moodle platform, the students were able to see their results and grades and have constant feedback from the teacher. In turn, the teacher could see students working online, as well as statistics on student performance, and helped maintain two-way communication, which led to fruitful cooperation.

The teaching materials were interdisciplinary and industry-specific terms and phrases (1500 units), authentic audio recordings of negotiations, a subsystem of exercises for developing terminological competence in bilateral interpreting, and methodological approaches allowing adaptive training.

The invariant parameters of the experiment included the group’s composition and students’ level of training in the experimental groups; the duration of experimental training; the total number of hours allocated for the implementation of the developed methodology; the implementation of experimental training by one teacher-experimenter, the author of the study, in this case; tasks for pre-and post-experimental tests; the same subsystem of exercises; criteria for assessing the level of the development of terminological competence in bilateral interpreting; and an online course for individual study to develop terminological skills.

The level of time management in the experimental process, which correlates with the dominance of a specific type of psychological situation of bilateral interpreting, was chosen as an independent variable of the experiment. Model A of the developed methodology was characterised by strict time constraints on tasks only at the first and second stages of the training. This model used the factor of rigid time constraints, which imitated the actual situation of bilateral interpreting. In contrast, model B involved semi-rigid time constraints, which created a more comfortable psychological situation.

The choice of the independent variable was determined by the importance of time management in the development of future interpreters’ stress resistance and the need for scientific substantiation of the ratio of these psychological factors in the learning process.

The two experimental groups (EG-1 and EG-2) were taught on the basis of different approaches (models A and B) based on the identical subsystem of exercises. The quantity and types of exercises performed by EG-1 and EG-2 students were the same, but EG-1 students were severely limited in time, which simulated the situation of real-life bilateral interpreting.

The purpose of the pre-experimental testing was to determine the initial level of psychophysiological mechanisms (memory, attention, reaction, listening skills), the level of knowledge of interdisciplinary polysemants and industry-specific terms, the ability to differentiate and interpret domain-specific terms, and the code-switching skills at the level of words, phrases, and text.

The post-experimental testing involved assessment of the students' final level of terminological competence development. Identical criteria were used for the assessment of experimental results, as well as the pre-experimental and post-experimental tests.

The Moodle platform features and the built-in mathematical apparatus allowed for the configuration of the assessment system and automatic calculation of the results of the students' work.

The pre-experimental testing showed that the students' level of terminological competence in bilateral interpreting is insufficient. The main shortcomings were as follows:

1. Low levels of terminology skills and code-switching ability, which may be caused by an insufficient amount of individual training beyond the classroom activities, when the students can develop their skills at their own pace.
2. Little experience in practising interdisciplinary terminology.
3. Insufficient development of psychophysiological mechanisms (short-term memory, attention and reaction speed).

The next stage was devoted to the experimental teaching with the aim to (1) check the efficiency of the subsystem of exercises developed by us, and (2) compare the two models of teaching (A and B) with the time constraints being the independent variable.

To compare the results of the EG-1 and EG-2 groups, we used data processing mathematical methods (Streefkerk, 2019). First, let's test the hypothesis of the experimental results' normal distribution. Since the number of students is  $n > 30$ , we apply Pearson's criterion using the following algorithm:

Step 1. Grouping the results of the experiment.

According to the data obtained, we find the minimum and maximum number of points scored by students

$$x_{\min} = 30, x_{\max} = 100 \quad (5)$$

then

$$h = \frac{x_{\max} - x_{\min}}{1 + 3.2 \lg(n)} \approx 10. \quad (6)$$

Thus, we can form 7 partial intervals,  $x_1 = 30$  and  $x_8 = 100$  are lower and upper limits of the interval series, respectively. For each partial interval  $I_i$  ( $i = 1, 7$ ) we calculate frequency  $n_i$  and write them in Table 14.1.

Table 14.1

$I_i$	$n$	$z_i$	$\Phi(z_i)$	$p$	$n'$	$\chi_2$
30-40	12	-1,154	0,1242	0,113	3,8435	0,8842
40-50	2	-0,715	0,2372	0,154	5,2357	1,9997
50-60	3	-0,276	0,3912	0,1735	5,8995	1,425
60-70	6	0,1629	0,5647	0,1617	5,4985	0,0457
70-80	6	0,602	0,7264	0,1247	4,239	0,7316
80-90	4	1,0412	0,8511	0,0795	2,7031	0,6223
90-100	1	1,4803	0,9306			

Step 2. Calculation of numerical characteristics of the interval statistical series.

Using the results from Table 14.1, we calculate the main numerical characteristics of the interval statistical series.

Sample mean

$$\bar{x}_B = 56,29.$$

Sample standard deviation :

$$\sigma_B = 22,77.$$

Step 3. Calculation of theoretical frequencies and construction of a theoretical distribution curve.

In order to calculate the theoretical frequency  $n'_i$ , we normalise the random variable  $X$ , i.e., switch to the value  $Z = \frac{X - \bar{x}_B}{\sigma_B}$  and calculate the lower and upper intervals  $(z_i, z_{i+1})$ :

$$z_i = \frac{x_i - \bar{x}_B}{\sigma_B}, \quad z_{i+1} = \frac{x_{i+1} - \bar{x}_B}{\sigma_B}. \quad (7)$$

In this case, the smallest value  $z$ , i.e.,  $z_1$  is set equal to  $-\infty$ , and the largest, i.e.,  $z_7 = \infty$ . Then we calculate the theoretical probabilities  $p_i$  that the random variable  $X$  will have a value from the interval  $(x_i, x_{i+1})$  by the formula:

$$p_i = \Phi(z_{i+1}) - \Phi(z_i). \quad (8)$$

where  $\Phi(z)$  is the Laplace function, the value of which is found in the reference tables.

Next, we find the theoretical frequencies  $n'_i = np_i$ . Based on the results of the calculations, we construct a theoretical curve at the points  $(x_i^*, n'_i/h)$  and  $(\bar{1}, 7)$  (Fig. 14.7)

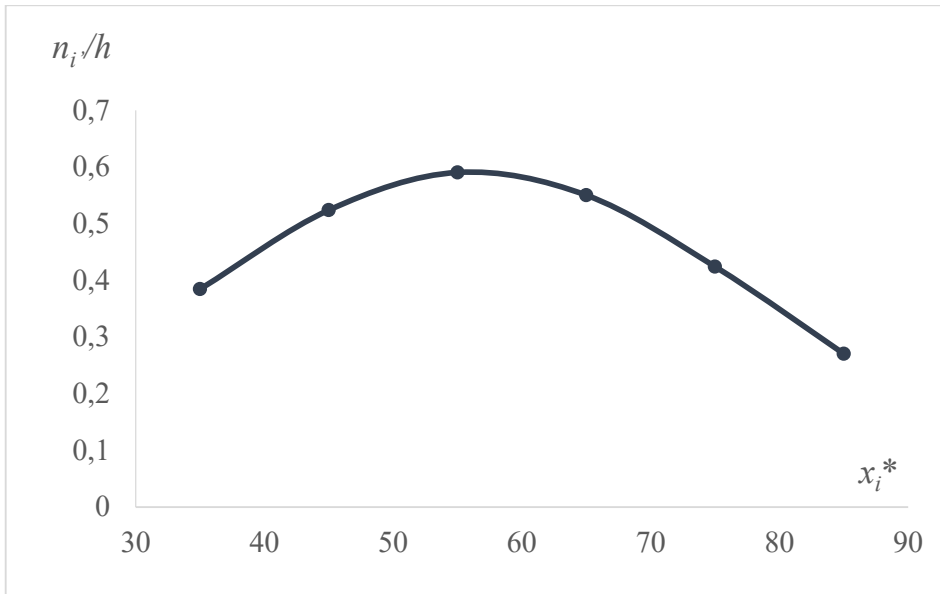


Fig. 14.7. Theoretical curve

Then we calculate the empirical value of the criterion  $\chi^2$  (we denote it  $\chi_p^2$ , i.e., the expected value  $\chi^2$ ) by the formula:

$$\chi_p^2 = \sum_{i=1}^7 \frac{(n_i - n'_i)^2}{n'_i}. \quad (9)$$

All results of calculations are given in Table 14.1. Therefore,  $\chi_p^2 = 5.7$ .

Step 4. Testing the hypothesis of consistency of empirical and theoretical distribution by the Pearson criterion  $\chi^2$  at a given significance level.

According to the table of critical distribution points  $\chi^2$  at a given significance value and the number of degrees of freedom  $k = S - 1 - r$  ( $S$  – the number of partial intervals;  $r$  – the number of hypothetical distribution parameters estimated from the sample), we find the critical point  $\chi_{cr}^2(\alpha, k)$ . In our case  $k = 7 - 1 - 2 = 4$ , the significance value  $\alpha = 0,05$ . Therefore,  $\chi_{cr}^2(0,05; 4) = 9,5$ .

Since  $\chi_p^2 = 5,7 < \chi_{cr}^2 = 9,5$ , the empirical and theoretical distribution differ insignificantly, i.e., we can say that the empirical data are consistent with the hypothesis of normal statistical population distribution.

In order to assess the effectiveness of the proposed method, we compare the learning coefficients in the groups EG-1 and EG-2. Preliminary calculations have shown that the learning rate in the EG-1 group is higher than in the EG-2 group. Still, the difference significance can be determined only by comparing the population means  $a_1$  i  $a_2$ , the statistical estimates of which are the sample means of the learning coefficient  $a_{EG-1}$  i  $a_{EG-2}$ . Therefore, we will consider the learning outcomes in each group as two independent samples ( $n_1=34$  and  $n_2=34$ , respectively) from the normally distributed general populations EG-1 and EG-2.

Next, let's test the null hypothesis  $H_0 : a_1 = a_2$  with a competing hypothesis  $H_1 : a_1 > a_2$ . To this end, we calculate the estimated value of the criterion:

$$Z_p = \frac{a_{EG-1} - a_{EG-2}}{\sqrt{\frac{D(EG-1)}{n_1} + \frac{D(EG-2)}{n_2}}} = 3,38, \quad (10)$$

where  $a_{EG-1}$  and  $a_{EG-2}$  – the mean of learning coefficient in groups EG- and EG-2,  $D(EG-1)$  and  $D(EG-2)$  – population variance EG-1 and EG-2,  $n_1$  and  $n_2$  – the number of students in groups EG-1 and EG-2, respectively.

Next, according to the Laplace transform table, we find the critical point  $z_{kp}$  for the significance value  $\alpha = 0.05$  from the equation  $\Phi(z_{kp}) = \frac{1-2\alpha}{2}$ , where  $z_{kp} = 1.65$ .

Since  $Z_p > z_{kp}$ , we reject the null hypothesis.

It is known that Statistical hypothesis testing is applied to solve two problems: hypothesis testing on the type of unknown population distribution and hypothesis testing on the values of the parameters of the known distribution. Therefore, it is possible to test the effectiveness of training in conditions of rigid time constraints, provided that the type of distribution is known. Thus, in the framework of this study at the first stage, we confirmed the hypothesis of normal distribution. In the second stage, we tested the hypothesis of the effectiveness of training in conditions of rigid time constraints.

A *null* hypothesis assumes that the mean value of the learning coefficient in EG-1 is equal to the mean value of the learning coefficient in EG-2, and the *competing* hypothesis is that the mean learning coefficient in EG-1 is significantly higher than in EG-2.

Since the null hypothesis is rejected, the difference in learning outcomes is significant. Therefore, random reasons cannot explain it, and the proposed method of developing terminological competence in bilateral interpreting can be recommended for distance and blended learning.

The conducted theoretical analysis, designed teaching methods, and experimental verification of its effectiveness allow the development of methodological recommendations for implementing this technique within the course of bilateral interpreting (the final stage of the Bachelor's degree).

The evaluation system of the first two stages (training and preparatory) was created using a mathematical apparatus based on the Moodle platform, reducing almost all answers to the "true/false" type.

To assess the third, the actual interpreting stage, the following criteria were considered: semantic adequacy of the interpreted information; language norms; accuracy of equivalence search of interdisciplinary and industry-specific terminology.

Pre-experimental testing preceded both series of experimental training. The object of control was the level of development of terminological skills as components of terminological competence in bilateral interpretation.

In order to acquaint students with the principles of the distance course at the initial stage of the experiment, we developed the structure of a classroom lesson in a computer class, where the teacher gives both detailed instructions and a presentation. The detailed instructions, which were also e-mailed

to students, described the objectives of the course, along with general information, timing, activities, didactic and methodological tools to ensure the activities and provided types of control were understood.

All the students were pre-registered. The students entered their details in the registration form, including e-mail address, name and group, and access to the course with the “student” role. After registration, the students received a notification by e-mail about creating an account with a temporary login and password, which must be changed after the first visit to the site, increasing the protection and security of their data.

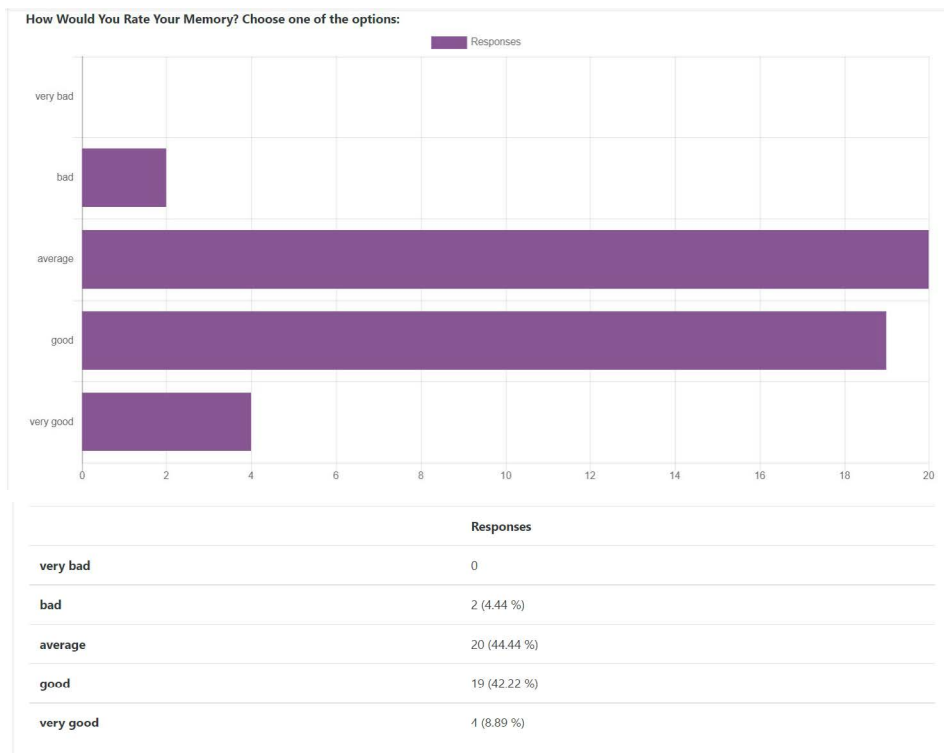
Next, the teacher gives the registered students access to relevant tasks. First, students receive all the necessary information via e-mail. Then, students log in to the system using their login and password.

The teacher sees a list of users and general information, and can see detailed statistical information about each student’s work. Information includes each student’s e-mail, the IP address of the user, the time when the student last visited, activity during a particular day, total activity during the study period, full work report, statistics, grades, view student messages, forum activity, etc. Such detailed information helps monitor each student’s activities, to see how much time the student has spent on exercises, and what results were obtained.

In the electronic logging report, you can see the results from each student, along with information about what tasks the student performed, how much time was spent on the task, how many attempts were made, and which IP address the student used, reducing students’ chances of completing tasks for each other. The teacher can also see which answer options the student provided in the learning process and their weight relative to the maximum possible number of points.

In the first stage of the work, students take a survey, which allows them to assess their level of language skills, interpreting skills, etc., and formulate expectations from the course. Fig. 14.8 shows a sample analysis of the evaluation results and graph data.

After that, students move on to the pre-experimental stage, which contains tasks similar to those that will form the designed subsystem of exercises for developing terminological competence in the field of power engineering in bilateral interpreting.



*Fig. 14.8. Sample analysis of student assessment results and graph data.*

The first block includes preparatory non-contextual exercises, a simulator for activating psychophysiological mechanisms (memory, attention, reactions), the development of listening skills, and the development of the ability to learn autonomously. The second block contains microcontext training exercises for developing interpreting skills, and involves activating psychophysiological mechanisms (memory, attention, reaction) and listening skills formed during the first stage. It also contains the tasks for developing code-switching skills within the context of interdisciplinary polysemants and industry-specific terms. Finally, the third block contains actual interpreting micro-and macro-contextual exercises to activate the developed terminological skills in bilateral interpreting.

Each unit, designed for independent work, is preceded by a lecture in a computer class, where the teacher gives detailed instructions on the types of tasks.

Since working with a distance course involves using computer technology (desktop computer, laptop, tablet or smartphone) and headphones, it is desirable to conduct classes in a multimedia computer classroom with access to high-speed wireless Internet.

To increase learning efficiency, students need enough space to work under conditions imitating the actual professional situation. Working with the subsystem of exercises includes working with audio recording equipment. The teacher also needs to be available to students to provide the necessary assistance.

Given the specifics of the future specialists' training in bilateral interpreting, we propose to allocate 10 hours of classroom work and 14 hours of extracurricular work.

As skills development and improvement occur in independent work mode, feedback plays an important role. Therefore, for all questions arising during the study, students can contact the course teacher by writing in the forum or using the function "Messages".

It should also be noted that the exercises of the test format are checked automatically; the teacher only sets the evaluation parameters (number of points, time, deadlines). The user has an unlimited number of attempts to perform the test, and the results of the best attempt determine the score - the highest score is credited to the database.

The tasks of the last stage of the actual interpreting exercises are assessed directly by the teacher, who analyses the text file with the written translation and the audio recording with the interpreting, which the students send as a separate file.

During the last stage of the experiment, students were embarrassed to record their interpreting, even though before individual work in the classroom, they worked in groups, developing the necessary skills, and while practising interpreting skills in the domain of power engineering at the text level. Furthermore, they worked in headphones, had enough space to avoid interference on the part of their fellow-students, and performed tasks simultaneously, which did not provide additional time to observe their classmates' work.

Given this situation, we recommend further discussion of this stress factor with students, encouraging them, showing understanding, avoiding criticism, and reminding them that this is an actual professional interpreting situation.

The course simulates real interpreting situations with a stress factor due to the limited time to complete the tasks. Therefore, the teacher should encourage students, emphasise student success and avoid interference in the learning process if students do not need help.

## **Conclusions**

The described method of training future interpreters contributes to the development and improvement of students' ability to conduct bilateral interpreting through the proper organisation of the learning process; planning and managing it, which is implemented through the tasks aimed at developing stress resistance during the course; active educational conduct of students, due to the use of elements of blended learning and microlearning; and development of students' skills for autonomous learning, self-assessment and work in situations close to the actual conditions of interpreting.

At the stage of approbation of the developed course for students majoring in 035 "Philology" at the Department of Theory, Practice and Translation of English Language, the Faculty of Linguistics of the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" the main problems were the internal resistance of students who were not sufficiently prepared for distance-learning courses and self-study.

However, the solution here is only a matter of time because, in today's environment, both teachers and students will have to improve their competencies in the field of information and communication technologies to meet education requirements in the XXI century. Elements of microlearning and the accessibility of the course (the ability to use a personal computer, laptop, tablet or smartphone to perform tasks) greatly facilitate the work and increase student motivation. In addition, it allows the teacher and students to work together effectively, receiving instant feedback, which helps to improve the quality of the learning process.

In conclusion, we note that these guidelines aim to facilitate the teacher's work in implementing the developed methodology to improve bilateral interpreting skills in independent extracurricular activities with elements of blended learning and microlearning. The suggested model of the educational process organisation, described above, was based on the material of interdisciplinary terminology in the field of power engineering.

Still, it can be easily adapted to teach any terminology subject along the above guidelines.

It should also be noted that experimental and control groups were formed for the experimental study, which studied the methodology alternatives (models A and B) based on the *ad hoc* subsystem of exercises for developing terminological competence in bilateral interpreting. Model A was characterised by the limited time to perform tasks only at the 1st and 2nd stages of training. Furthermore, this model used the factor of rigid time constraint, which simulated the actual conditions of bilateral interpreting. In contrast, model B involved the semi-rigid time constraint, which created a more comfortable psychological situation.

The number and types of exercises performed by EG-1 and EG-2 students were the same, but a rigid time limit for EG-1 students required them to be more stress-resistant. The choice of the independent variable was due to the importance of the time management, the development of stress resistance in interpreting, and the need to determine a scientifically sound ratio of these psychological factors in the learning process. The experimental results showed a positive trend in all groups: the average learning rate in the experimental group EG-1 was 0.80 and in the second group 0.72. The experiment results in the experimental groups EG-1 and EG-2 were compared using mathematical data processing methods. The obtained results are consistent with the hypothesis of a normal distribution. Therefore, the proposed method may be applied to larger groups of students. Given the fact that students who studied according to model A, achieved better performance, there is reason to assume that model A is more effective and can be recommended for its implementation in the educational process based on the Moodle platform.

We see the prospect of further research in applying the suggested methodology in terminological competence development both in interlingual mediation and in the professionally-oriented communication of future specialists in various domains.

## References

Adams Becker, S., Cummins, M., Davis, A., Freeman, A., Hall Giesinger, C., & Ananthanarayanan, V. (2017). *NMC Horizon Report: 2017 Higher Education Edition*. Austin: New Media Consortium. Retrieved from <https://www.sconul.ac.uk/sites/default/files/documents/2017-nmc-horizon-report-he-EN.pdf>

- Cabrera, T. (2017). Applications of Simultaneous Interpreting Corpora in Terminology Research. *New Voices in Translation Studies*, 17, 31–51. Retrieved 11 2020, from [https://www.academia.edu/36059998/Applications\\_of\\_Simultaneous\\_Interpreting\\_Corpora\\_in\\_Terminology\\_Research](https://www.academia.edu/36059998/Applications_of_Simultaneous_Interpreting_Corpora_in_Terminology_Research)
- Cao, D. (1996). On Translation Language Competence. *Babel*, 42(4), 231–238.
- CEFR. (2018). *Common European Framework of Reference for Languages: Learning, Teaching, Assessment Developing Illustrative Descriptors of Aspects of Mediation for the CEFR*. Retrieved from Council of Europe: <https://rm.coe.int/common-european-framework-of-reference-for-languages-learning-teaching/168073ff31>
- CEFR. (2018). *Council of Europe. Common European framework of reference for languages: Learning, teaching, assessment*. (U. P. Cambridge, Ed.) Retrieved from Companion Volume with New Descriptors: <https://rm.coe.int/cefr-companion-volume-with-new-descriptors-2018/1680787989>
- Chernovaty, L.M . (2021). Psycholinguistic Aspects of the Development of Students' Critical Approach to the Solution of Terminological Problems in Online Translation Learning. *East European Journal of Psycholinguistics*. doi:<https://doi.org/10.29038/ejpl.2021.8.2.che>
- Igor Sikorsky KPI Sites Rating. (2022, 02 22). Retrieved from Webometr: <http://webometr.kpi.ua/top>
- Kolomiets, S. G. (2018). Bilateral Interpreting Course in Blended Learning: Experimental Verification. *Advanced Education*, 5(10), 82-87. doi:<https://doi.org/10.20535/2410-8286.141437>
- NPC, U. (2022, 05 04). *Ukrenergo*. Retrieved from National Power Company: <https://ua.energy/european-integration/>
- Saprykin, S. C. (2011). *The World of Interpreting: A Textbook*. Vinnytsia: Nova Knyha.
- Spielberger, C. D. (1983). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Spielberger, C. D. (2022, 05 11). *The State-Trait Anxiety Inventory (STAI)*. Retrieved from American Psychological Association (APA): <https://www.apa.org/pi/about/publications/caregivers/practice-settings/assessment/tools/trait-state#:~:text=Description%20of%20Measure%3A%20The%20State,distinguish%20it%20from%20depressive%20syndromes>.
- Streefkerk, R. (2019, 04 12). Qualitative vs. quantitative research. Retrieved from <https://www.scribbr.com/methodology/qualitative-quantitative-research/#:~:text=Quantitative%20research%20deals%20with%20numbers%20and%20statistics%2C%20while%20qualitative%20research,ideas%20and%20experiences%20in%20depth>.
- The List of Professions Requiring Professional Selection*. (2022, 05 12). Retrieved from Legislation of Ukraine: <https://zakon.rada.gov.ua/laws/show/z0018-95#Text>
- Womack, B. H. (1996). Classification of speech under stress using target driven features. *Speech Communication*, 20, 131–150.

## AUTHORS' PROFILES

1. **Leonid Chernovaty**, DrSc, Professor; Mykola Lukash Translation Studies Dept, V.N. Karazin Kharkiv National University (Ukraine); Department of English and American Studies, Matej Bel University (Slovakia); Full Member of Higher School Academy of Sciences of Ukraine; President, Ukrainian Translator Trainers' Union (UTTU). **Editor and author.** [leonid.m.chernovaty@meta.ua](mailto:leonid.m.chernovaty@meta.ua)
2. PhDr. **Martin Djovčoš**, PhD, Associate Professor; Department of English and American Studies, Matej Bel University (Slovakia). **Introduction.** [martin.djovcos@umb.sk](mailto:martin.djovcos@umb.sk)
3. **Natalia Zinukova**, DrSc, Professor; Head, Dept of European and Oriental Languages and Translation, Alfred Nobel University in Dnipro (Ukraine); Vice-President, Ukrainian Translator Trainers' Union (UTTU). [natzinukova@gmail.com](mailto:natzinukova@gmail.com)
4. **Oleksandra Popova**, DrSc, Professor; Dean, School of Foreign Languages, K. D. Ushynsky South Ukrainian National Pedagogical University in Odesa (Ukraine). [alex-popova@ukr.net](mailto:alex-popova@ukr.net)
5. **Oleksandr Rebrii**, DrSc, Professor; Head, Mykola Lukash Translation Studies Dept, V.N. Karazin Kharkiv National University (Ukraine). [rebrii1967@gmail.com](mailto:rebrii1967@gmail.com)
6. **Alla Martyniuk**, DrSc, Professor; Mykola Lukash Translation Studies Dept, V.N. Karazin Kharkiv National University (Ukraine). [allamartynyuk@ukr.net](mailto:allamartynyuk@ukr.net)
7. **Yevhenii Dolynskyi**, DrSc, Professor; Dept of Germanic Philology and Translation Studies, Khmelnytskyi National University (Ukraine). [dolynskyi@ukr.net](mailto:dolynskyi@ukr.net)
8. **Alla Olkhovska**, DrSc, Professor; Mykola Lukash Translation Studies Dept, V.N. Karazin Kharkiv National University (Ukraine). [las.19065@gmail.com](mailto:las.19065@gmail.com)
9. **Maria Pysanko**, PhD, Associate Professor; Dean, Philological Faculty of Educational Technologies, Kyiv National Linguistic University (Ukraine). [mariia.pysanko@knl.u.edu.ua](mailto:mariia.pysanko@knl.u.edu.ua)

10. **Oleksandr Kalnychenko**, Associate Professor; Mykola Lukash Translation Studies Dept, V.N. Karazin Kharkiv National University (Ukraine); Department of Slavic Languages, Matej Bel University (Slovakia). [kalnychenko@ukr.net](mailto:kalnychenko@ukr.net)
11. **Natalia Kovalchuk**, PhD, Associate Professor; Mykola Lukash Translation Studies Dept, V.N. Karazin Kharkiv National University (Ukraine); Department of English and American Studies, Matej Bel University (Slovakia). [n.m.kovalchuk@karazin.ua](mailto:n.m.kovalchuk@karazin.ua)
12. **Oleksandr Bondarenko**, PhD, Associate Professor; Dept of Translation Studies, Applied and General Linguistics, Volodymyr Vynnychenko Central Ukrainian Pedagogical State University in Kropyvnytskyi (Ukraine); Director, *Translatel* Translation Agency. [abondarenko@translatel.com](mailto:abondarenko@translatel.com)
13. **Kateryna Bondarenko**, PhD, Associate Professor; Dept of Translation Studies, Applied and General Linguistics, Volodymyr Vynnychenko Central Ukrainian Pedagogical State University in Kropyvnytskyi (Ukraine). [kbondarenko@translatel.com](mailto:kbondarenko@translatel.com)
14. **Anna Monashnenko**, PhD, Associate Professor; Dept of Foreign Philology and Translation, National University of Life and Environmental Sciences of Ukraine in Kyiv (Ukraine). [monashnenko.anna@gmail.com](mailto:monashnenko.anna@gmail.com)
15. **Kateryna Shevelko**, PhD, Associate Professor; Dept of Foreign Philology and Translation, Kyiv State University of Trade and Economics (Ukraine). [k.shevelko@knu.edu.ua](mailto:k.shevelko@knu.edu.ua)
16. **Liudmyla Hureieva**, PhD, Associate Professor; Dept of English for Engineering N1, National Technical University of Ukraine 'Igor Sikorsky Kyiv Polytechnical Institute' (Ukraine). [ludmila.goureyeva@gmail.com](mailto:ludmila.goureyeva@gmail.com)



## **Translator and Interpreter Training Methodology: The Ukrainian Dimension**

***Edited by:***

Leonid Chernovaty

***Authors:***

Oleksandr Bondarenko, Kateryna Bondarenko, Leonid Chernovaty, Martin Djovčoš, Yevhenii Dolynskyi, Liudmyla Hureieva, Oleksandr Kalnychenko, Natalia Kovalchuk, Alla Martyniuk, Anna Monashnenko, Alla Olkhovska, Oleksandra Popova, Maria Pysanko, Oleksandr Rebrii, Kateryna Shevelko, Natalia Zinukova.

***Reviewers:***

Prof. Iryna Zadorozhna, DrSc (Ternopil Volodymyr Hnatiuk National Pedagogical University)

Prof. Liubov Zenia, DrSc (Kyiv National Linguistic University)

***Language editor:***

Alex Millington

***Pages:*** 334, B5

***Circulation:*** 50 copies

***Publisher:*** Belianum. Matej Bel University Press, 2025

***Print:*** EQUILIBRIA, s. r. o.

***Picture on cover:*** [www.freepik.com/premium](http://www.freepik.com/premium) account

**ISBN 978-80-557-2257-3 (print)**

**ISBN 978-80-557-2258-0 (online)**

**DOI 10.24040/2025.9788055722580**

<https://doi.org/10.24040/2025.9788055722580>