

INTERNATIONAL CONFERENCE  
18H EDITION

filo DAL 2008  
diritto  
editore



# CONFERENCE PROCEEDINGS

Online Event | 5 November 2025  
in Florence (Italy) | 6-7 November 2025

Edited by





## CONFERENCE PROCEEDINGS

# 18<sup>th</sup> International Conference “Innovation in Language Learning”

*Hybrid Edition*

**5 November 2025 – Online Event  
6-7 November 2025 – in Florence, Italy**



Log in to find out all the titles of our catalogue  
Follow Filodiritto Publisher on Facebook to learn about our new products

ISBN 979-12-80225-91-7  
ISSN 2420-9619

DOI: 10.26352/LY05\_2420-9619

First Edition November 2025

© Copyright 2021 Filodiritto Publisher  
*filodirittoeditore.com*  
inFOROmatica srl, Via Castiglione, 81, 40124 Bologna (Italy)  
*inforomatica.it*  
tel. 051 9843125 - Fax 051 9843529 - [commerciale@filodiritto.com](mailto:commerciale@filodiritto.com)

*Translation, total or partial adaptation, reproduction by any means (including films, microfilms, photocopies), as well as electronic storage, are reserved for all the countries. Photocopies for personal use of the reader can be made in the 15% limits for each volume upon payment to SIAE of the expected compensation as per the Art.*

*68, commi 4 and 5, of the law 22 April 1941 n. 633. Photocopies used for purposes of professional, economic or commercial nature, or however for different needs from personal ones, can be carried out only after express authorization issued by CLEA Redi, Centro Licenze e Autorizzazione per le Riproduzioni Editoriali, Corso di Porta Romana, 108 - 20122 Milano.*

*e-mail: [autorizzazioni@clearedi.org](mailto:autorizzazioni@clearedi.org), sito web: [www.clearedi.org](http://www.clearedi.org)*

---

## Publication Ethics and Malpractice Statement

The Innovation in Language Learning Proceedings, edited by Pixel and published by Filodiritto Editore, is a collection of international peer reviewed Conference Proceedings committed to upholding the highest standards of publication ethics. In order to provide readers with Proceedings of highest quality we state the following principles of Publication Ethics and Malpractice Statement.

### 1) Editorial Board

Pixel, the Chief Editor, coordinates the Editorial Board whose members are recognized experts in the field of innovation in language teaching and learning. The Editorial Board members are the experts involved in Innovation in Language Learning Conference Scientific Committee. The full names and affiliations of the members of the Editorial Board/Scientific Committee are provided in the related section of the Conference Web Site. The Editorial Office is based at Pixel, Via Luigi Lanzi 12, I-50134 Firenze, Italy.

Email: [conference@pixel-online.net](mailto:conference@pixel-online.net)

### 2) Authors and Authors Responsibilities

Authors are obliged to participate in the papers' peer review process, responding to the reviewers' feedback and making the requested corrections, retractions, modifications and/or integrations.

All authors must have significantly contributed to the research work for the paper's production providing real and authentic data.

Authors must have written original papers and are aware that it is forbidden to republish the same paper.

Authors must provide the list of references and disclose all sources of financial support.

Fees required for manuscript processing and publishing are stated on the Conference Registration page.

### 3) Peer-review Process

Pixel, as the Chief Editor, ensures a fair double peer-review of the submitted papers for publication.

Peer-review is defined as obtaining advice on individual papers from reviewers' expert in the field.

Papers submitted to Innovation in Language Learning Proceedings go through, first of all, an internal review and if they meet the basic requirements, they are sent out for review by experts in the field, who are members of Innovation in Language Learning Conference Scientific Committee. The Peer reviewers evaluate and give advice on the papers.

The paper review process is clearly described below.

The reviewers evaluate the submitted papers objectively and present their opinions on the works in the Review Form. Reviewers evaluate papers based on content without regard to ethnic origin, gender, sexual orientation, citizenship, religious belief or political philosophy of the authors. A reviewer who feels unqualified to review the research reported in a manuscript notify the Editor and excludes herself/himself from the review process.

### 4) Publication Ethics

The Reviewers must report to the Chief Editor any identified plagiarism, research fabrication, falsification and improper use of humans or animals in research. The Chief Editor strives not to allow any misconduct.

In the event that there is documented misconduct the following sanctions will be applied:

- Immediate rejection of the infringing paper.
- Immediate rejection of every other paper submitted to Innovation in a Language Learning Proceedings by any of the authors of the infringing paper.
- Prohibition against all of the authors for any new submissions to Innovation in a Language Learning Proceedings, either individually or in combination with other authors of the infringing manuscript, as well as in combination with any other authors. This prohibition will be imposed for a minimum of three years.
- Prohibition against all of the authors from serving on the Editorial Board (Scientific Committee) of Innovation in a Language Learning Proceedings.

In cases where the violations of the above policies are found to be particularly outrageous, the Chief Editor reserves the right to impose additional sanctions beyond those described above.

Guidelines for retracting articles are the following:

- Retracting article will be considered if there is clear evidence that the findings are unreliable, either as a result of misconduct, honest error, plagiarism, or if the paper reports unethical research.
- The main purpose of retractions is to correct the literature and ensure its integrity.

- Notices of retraction will be promptly published on the online version of the Proceedings available on Innovation in Language Learning Conference website and linked to the retracted article, accurately stating the information of the retracted article and the reason(s) for retraction.
- Articles may be retracted by their author(s) or by the Chief Editor (Pixel). The Chief Editor has the final decision about retracting articles. The Chief Editor will retract publications even if all or some of the authors refuse to retract the publication themselves in case of unethical behaviours.

Authors who wish to enquire about publication of a correction for their article, or who have serious concern that they believe may warrant retraction, should contact the Chief Editor.

### **5) Copyright and Access**

Copyright and licensing information is clearly described in Innovation in Language Learning website at Release for Publication.

The electronic version of the Conference Proceedings will be shared to all the registered participants who paid the registration fee.

### **6) Archiving**

Innovation in Language Learning Proceedings books are digitally archived on **Google Scholar** and **Academia.edu**

### **7) Ownership and Management**

Innovation in Language Learning Proceedings are managed and edited by Pixel and published by Filodiritto Editore.

### **8) Website**

Innovation in Language Learning Conference website demonstrates that care has been taken to ensure high ethical and professional standards. It does not contain any misleading information, including any attempt to mimic another journal/publisher's site.

### **9) Publishing Schedule**

Innovation in Language Learning Proceedings are published yearly.

### **10) Name of Journal**

The proceedings' Innovation in Language Learning is unique and cannot be easily confused with another journal. These proceedings have ISSN code from CNR.



## INDEX

<b>Blended Learning</b>	<b>14</b>
Blended Intensive Programmes as an Innovative and Interdisciplinary Learning Approach <i>Tanja Psonder</i>	15
<b>Content and Language Integrated Learning (CLIL)</b>	<b>20</b>
Teaching Empathy and Language: Using Europeana to Explore Disability Heritage in the EFL Classroom <i>Eleni Tsangari</i>	21
Implementing Pluriliteracies Teaching for Deeper Learning: Insights from the ECML Training Event in Iceland <i>Caterina Poggi, Letizia Cinganotto, Kevin Schuck</i>	27
CLIL Ecology: Bioactive Terrarium and Campus Walk <i>Brad Barker</i>	31
<b>Curriculum Development</b>	<b>37</b>
Teachers' Attitudes towards Formative Assessment in the Context of Slovakia's New Curriculum Reform <i>Natália Rozmanová</i>	38
Integrating Gamification into Curriculum Development and ICT to Enhance Student Engagement in 7th Grade English Language Learning <i>Ostap Bodyk, Olga Morgunova, Hanna Podosynnikova</i>	44
<b>E-Learning</b>	<b>53</b>
From Chalkboards to Chatbots: Language Educators' Needs, Struggles and Adaptation in the AI Era <i>Asma Mohammed Alshehri</i>	54
Designing an AI-Orchestrated Language Learning Platform with Adaptive Conversational Support <i>Michal Macinka, Stepan Hubalovsky</i>	60
Fostering Cognitive Presence in an Online EFL Course through Strategic Task Design <i>Kirsi Korkealehto, Vera Leier</i>	66
Effective Ways of Integrating Speech Recognition Software into Speaking and Listening Activities <i>Liliia Kuchmarenko</i>	70
Adapting to Gen-Z: Micro-learning as a Strategy for Developing Writing Skills among Bangladeshi High Schools <i>Mayesha Farzana Mitu, Lubaba Sanjana</i>	75
Enhancing ELT Students' Oral Communication Skills Using Video Podcasting: A Mixed-Methods Case Study in an Online Speaking Course <i>Arzu Koçak</i>	83
Effects of Scaffolding in Digital Game-Based Learning for Promoting Learners' Autonomy in Foreign Language Contexts <i>Nouf Jazaa Aljohani</i>	91

<b>Engagement in Language Learning</b>	<b>99</b>
Duolingo as a Supplementary Tool in Formal Beginner German Instruction <i>Vera Leier, Kirsi Korkealehto</i>	100
Kichwa Language Teaching Effectiveness and Cultural Relevance in Ecuador's Intercultural Bilingual School System: A Needs Assessment <i>Sophia Cadoux, José Pomavilla</i>	104
Enhancing Listening Skills for Iraqi EFL University Students with the Suggestopedia Method <i>Rasim Tayyeh Gahgoh, Mansour Kadhim Hejal Al-Kaabi</i>	113
Empowering Learners' Metalinguistic Awareness and Multilingual Competence in the Language Classroom: Exploring Teachers' Beliefs and Practices <i>Nada Nasser Alghali</i>	120
Artificial Intelligence in the Service of Language Teaching <i>Marili Douzina</i>	128
Language Learning and Inclusive Diversity: Plurilingual Competence in Integrated Primary Education <i>Alan Bruce, Imelda Graham</i>	134
Enhancing Critical Thinking Skills through Collaborative Writing in L2 Classrooms <i>Sofia Hashim, Shadiya AlHashmi, Hajar Mahfoodh</i>	140
Frontline Classrooms - Currency of Context for Student Engagement <i>Gillian Spicer</i>	148
Creative Engagement with Hispanic Literature through Generative AI <i>Meghan McInnis-Domínguez</i>	153
AI as Supporting Tool for the L2 Language Teaching <i>Cristiano Sanna, Mario Paiano</i>	160
<b>ICT for Language Learning</b>	<b>164</b>
The Use of Duolingo in Teaching/Learning the Spanish Language: The Croatian Perspective <i>Krunoslav Mikulan, Vladimir Legac, Predrag Oreški</i>	165
Incorporating ChatGPT in Foreign Language Education: Teacher Challenges, Reflections on Informal Initiatives and Strategies <i>Christina Rapti, Panagiotis Panagiotidis</i>	173
Perceptions, Practices, and Attitudes on the Use of iPads in the English as a Foreign Language Classroom: Evidence from the Andorran School System <i>Ferran Costa Marimon</i>	181
Automatic Generation of a Graded Reader in Old Church Slavonic <i>Iglika Nikolova-Stoupak, Gaël Lejeune, Eva Schaeffer-Lacroix, Aliona Shestakova-Stukun</i>	186
The Impact of Using Artificial Intelligence Tools on EFL Students' Speaking Fluency: The Mediating Role of Emotional Factors <i>Fatima Raheem Almosawi, Nadia Majeed, Abbas Lutfi Hussein</i>	194
Chatting with Garibaldi: Using a Teacher-Created AI Chatbot in Italian L2 Instruction <i>Francesca Riva</i>	203

A Feature Survey of Mobile-Assisted Language Learning Apps for Kichwa Language Revitalization: Gaps and Areas for Improvement <i>José Pomavilla, Sophia Cadoux</i>	210
Linguistic Corpus Based Analysis of Jewellery Vocabulary in Art Design <i>Marianna Hudcovičová</i>	217
More than a Meeting Tool: Leveraging AI-Enhanced Zoom as a Learning Space for Virtual Student Mobility and Student Engagement in Content-Based Global Courses <i>Sachiyo Sekiguchi</i>	223
Emotional Responses to AI Tutors in Young Learners: A Sociocultural Perspective on Trust, Motivation and Frustration <i>Tatiana Kozlova</i>	229
Exploring the Effectiveness of Teaching Adjacency Pairs via GPT for Iraqi First-Year College Students <i>Bushra Nima Rashid, Bushra Saadoon Mohammed Alnoori</i>	236
Beyond Access: ICT Utilization and Innovation in Japanese Education <i>Niculina Nae</i>	244
Mediation and Innovation in Language Teaching: Integrating Digital Tools and Emotional Engagement <i>Sara Biasin</i>	248
ICT and eLearning in L2 Writing Classrooms: Challenges and Opportunities <i>Hajar Mahfoodh, Shadiya AlHashmi, Sofia Hashim</i>	255
Affect Landscape Teaching in Portsmouth: A Literary Immersion Experience with Digital Technologies <i>Laura Distefano</i>	263
<b>Language and Society</b>	<b>266</b>
Addressing Gaps in the Recruitment of Spanish Language Teachers: A Qualitative Perspective <i>Mellissia Walles</i>	267
A Cognitive Semantic Analysis of ROAD Concept in English and Japanese Expressions <i>Kosuke Nakashima</i>	272
Analysis of Children's Conceptions of the Terms Computer, Internet and Information <i>Milena Lipnická</i>	280
The Impact of Family and School Cultural Capital on the Reading Literacy of Slovak Students <i>Simoneta Babiaková, Monika Brozmanová</i>	289
The Distribution of Active Verbs in Task Instructions in Primary Education Textbooks <i>Ružena Čiliaková, Marian Trnka, Monika Brozmanová</i>	297
Assessment as a Motivational Tool in Teaching Slovak to Learners with a Different Mother Tongue <i>Monika Brozmanová, Ružena Čiliaková</i>	304
Advocacy for Women's Rights in American Caucuses: A Feminist Stylistic Study <i>Salih Mahdi Adai AlMamoory, Sua'd Hafedh Mahdi</i>	312

Cultural Identity and Gender Representation: A Comparative Study of Cultural Figures in English and Italian Textbooks for Foreign Learners <i>Simona Serafimovska, Vesna Koceva</i>	320
Teaching Languages in Migrant Contexts: Managing Heterogeneity through Inclusive and Multiliteracy-Based Approaches <i>Elisa Lamura</i>	328
Gaining a Fresh Perspective on Society by Learning a Foreign Language <i>Irina-Ana Drobot</i>	336
Reconsidering 'Culture' in Teaching Japanese as a Foreign Language: Towards Better Intercultural Communication <i>Nobumi Kobayashi</i>	342
Integrating Multicultural Education into ELT: Theory, Practice, and Regional Challenges <i>Mariami Akopian</i>	350
Characterization of the English Language Teaching Process in Bilingual Intercultural Educational Institutions in Cañar, Ecuador <i>José Pomavilla, Paola Santamaría, Mauro Villacrés, Martha González</i>	356
<b>Language for Specific Purposes</b>	<b>362</b>
Language and Rhetoric in Turkish Children's Books <i>Ferdi Bozkurt, Burcu Büyükkal</i>	363
The Pivotal Role Coupling ESP and Engineering: Preparation for the Globalized Landscape <i>Adin Caspary, Diane Boothe</i>	368
Teaching Referencing Skills to Undergraduate Aeronautical Engineering Students <i>Dietmar Tatzl</i>	374
Innovative LSP Framework: Transforming Language Education through Context-Driven Design and Adaptive Teacher Training <i>Mario Pace</i>	379
Main Characteristics of Teaching Business Grammar in the ESP Context <i>Naira Poghosyan</i>	385
Thematic Patterns in Engineering Abstracts: Enhancing Academic Writing Across Cultures <i>Nour Elhouda Dib</i>	392
<b>Language Teaching Strategies</b>	<b>397</b>
PechaKucha as a Strategy to Enhance Speaking Skills and Critical Thinking in EFL Contexts <i>Carlos Cazco-Maldonado, Erick Pacheco-Delgado</i>	398
Development of the Learners' Collaborative Skills in the Process of Teaching English <i>Susanna Asatryan</i>	403
The Role of Art in Second Language Acquisition and Identity Formation through the Artist's Eyes: Navigating Language and Cultural Identity <i>Hagit Arieli Chai</i>	409
Virtual Exchange as a Facilitator of Intercultural Communicative Competence Development <i>Silvia Canto</i>	419

Japanese EFL Learners' Past L2 Learning Experience and Lexical Inferencing Strategy Use in the Study Abroad Context <i>Daichi Shiraishi</i>	422
From Authentic to "Authenticized": Reconceptualizing Language Teacher Identity and AI-Driven Materials <i>Stefano Maranzana</i>	432
AI and Social Agency in Language Teaching <i>Richard Chapman</i>	440
Generative AI in Language Education: A Critical Framework for Pedagogical Integration <i>Joseph Vancell</i>	445
Language Learning as Leadership Training? Rethinking Adult Language Education through the Lens of Soft Skills <i>Anna Hainoja, Katri Sirkel</i>	452
Differentiated Literacy Instruction for Multilingual Learners: Integrating AI and Culturally Responsive Practices within the IPC <i>Emma Smit</i>	457
Corpus Linguistics and the Identification of Linguistic Patterns and Meanings: Insights from Learners' Practices – An Exploratory Study <i>Joana Aguiar</i>	465
"Grammar of Character": Culture-Infused Grammar Tasks for Mixed-Age, Bilingual Classrooms <i>Der-Jen Sun</i>	471
Trauma-Informed and Culturally Responsive Pedagogy in Adult English Language Education: Addressing Affective Barriers and Supporting Educator Wellbeing <i>Hashini Abeysena</i>	475
<b>Media and Language Learning</b>	<b>483</b>
Appraising Emotions and Interpersonal Meaning in Contemporary Disney Animated Films for Children <i>Nada AlJamal</i>	484
"Il état une fois": Podcasting Pedagogy in the French Language Classroom <i>Melissa Barchi Panek</i>	492
Ludonarrative Scaffolding in Game-Based L1 Language Learning: Enhancing Literary Understanding through Interactive Prompts <i>Jaron Müller</i>	500
Improving University Students' Media Literacy through an ERASMUS+ Blended Intensive Program: A Case Study <i>Joseph Jack Horgan, Tatjana Sinkus, Inese Ozola</i>	508
<b>Primary Education</b>	<b>515</b>
Children's Expressions as a Key to Understanding Child's Level of Thinking, Creation and Action <i>Bronislava Kasáčová, Lenka Lipárová</i>	516
Pre-Literacy Skills of Children from Socially Disadvantaged Background <i>Mariana Cabanova, Marian Trnka</i>	523

<b>Project-based Learning</b>	<b>531</b>
Sounds of Change: Exploring Spanish Phonetics in the Evolving Linguistic Landscape of St. George <i>Lucia Taylor</i>	532
Classroom Interaction during Collaborative Video-Making at Czech Secondary School EFL Lessons <i>Rowan Samoilov</i>	535
Integrating Service Learning into English Language Instruction: A Transformative Approach to Teaching and Learning <i>Izabela Olszak</i>	543
Project-Based Learning for Global Collaboration and Educational Resilience during Crisis: Enhancing Language and Intercultural Skills on eTwinning <i>Senem Seda Demirtaş</i>	550
The Effectiveness of Project-Based Learning in Improving Public Speaking Skills among Moroccan Undergraduates <i>Meryem Aherrahrou</i>	555
<b>Studies on Language Learning</b>	<b>562</b>
From Other-Regulation to Autonomy: Tracing Emergent Abilities through Interactionist Dynamic Assessment in EFL Contexts <i>Ehsan Zolfaghari Younesi, Roya Khoii</i>	563
The Impact of Dogme on Iranian EFL Learners' Speaking Skills <i>Negin Momeni, Nahid Zarei</i>	567
An Investigation into Vocabulary Learning Strategies and Their Relation to Vocabulary Size among EFL Learners <i>Fatimah Aljayzani</i>	571
When Form Follows Function: A Pragmatic Analysis of Portmanteau Words in Everyday Discourse <i>Atyaf Hasan Ibrahim</i>	578
How to Improve Students' Reading? Assessments Should Help... <i>Maria-Lavinia Moldovan</i>	588
Evaluating the Representation of Pragmatic Competence in Two Advanced EFL Textbooks Used in Romania: A Textual Analysis of Upstream C1–C2 <i>Maria Ana Cumpăt</i>	596
From Gaps to Solutions: Advancing Arabic Language Assessment through the Hamza Academic Test <i>Alaa Alzahrani, Ebtessam Abdulhaleem</i>	602
Information Structure across Languages: Rheme Identification among Czech and Slovak English Learners and Native English Speakers <i>Emma Jackovičová</i>	609
<b>Teacher Professional Development</b>	<b>619</b>
Making Room for Identity and Prospective Non-Native Teachers' Voices in Second Language (L2) Pronunciation Teaching <i>Adriana Fernández-Criado</i>	620

---

The Innovative Teaching Mindset in an Era of Digital Evolution: A Longitudinal Study of Teacher Perceptions and the Rise of AI <i>Daisy De Gioannini</i>	627
The TAPPEO Project: Embracing Linguistic Diversity in Early Childhood Education in Romania <i>Irina Gheorghiu, Roxana Barbieru, Roxana Neagu, Claudia Elena Dinu, Irina Ionita, Stefan Colibaba</i>	634
<b>Translation</b>	<b>642</b>
Exploring the Hurdles and Flaws in Localizing English User Interface into Arabic on Social Media Platforms <i>Younis Al-Dalawi, Abeer Al-Mahdawi, Kais Al-Saedi</i>	643
<b>Authors</b>	<b>652</b>

# Pre-Literacy Skills of Children from Socially Disadvantaged Background

Mariana Cabanová<sup>1</sup>, Marian Trnka<sup>2</sup>

<sup>1,2</sup>Matej Bel University in Banská Bystrica, Faculty of Education, Slovakia

## Abstract

*Preliteracy skills are foundational competencies that prepare children for acquiring reading and writing in primary education. These include key skills such as oral language, phonological and phonemic awareness (awareness of sounds), knowledge of the alphabet, and an understanding of basic print concepts (e.g., that print runs from left to right and from top to bottom on a page). In this study, we present the results of a diagnostic assessment of children's preliteracy skills at the end of pre-primary education. The results showed that pupils from socially disadvantaged backgrounds (SDB) scored statistically significantly lower than their peers from the majority population. For this reason, it is essential to provide intensive educational support from the very outset of schooling. However, professional development is essential for teachers to be able to provide this kind of support.*

**Keywords:** *preliteracy skills, children, socially disadvantaged background (SDB), teacher professional development, inclusive education*

## 1. Introduction

The term preliteracy encompasses a wide range of knowledge, skills, and attitudes that children acquire before formally entering school, serving as prerequisites for the development of literacy ([1], [2], [3]). In this context, the term *emergent literacy* is also frequently used ([4]). Key components of preliteracy skills include phonological awareness (the ability to distinguish and manipulate language sounds), alphabetic knowledge (recognizing letters and associating them with sounds), narrative skills (the ability to tell and comprehend stories), knowledge of print conventions (e.g., reading direction, distinguishing pictures from text), and, most importantly, a positive attitude towards books and reading ([1], [2], [3]). These skills are developed through interactions with written culture within the home environment and in pre-primary education [5].

### 1.1 Preliteracy Skills of Children from Socially Disadvantaged Backgrounds and the Roma Population

Despite the universal importance of literacy, children from socially disadvantaged backgrounds (SDB) often face specific challenges that can substantially affect their initial conditions when entering the educational process [7]. The social environment plays a fundamental role in the development of preliteracy skills. Families with low socioeconomic status often face limited resources, resulting in fewer books and educational materials at home, as well as a restricted range of cultural and educational activities [8]. The absence of a stimulating language environment, in which children are regularly engaged in conversation, read to, and told stories, results in a smaller vocabulary, weaker phonological awareness, and reduced motivation to read. Parents having a lower-levels of education themselves, may not fully appreciate the importance of literacy and may provide less support for the development of these skills in their children. Children growing up in socially disadvantaged environments are often exposed to various risk factors that can adversely affect their cognitive and language development, and consequently, the development of their preliteracy skills [8]. These factors are complex and interrelated, resulting in significant differences in school readiness compared to their peers from more stimulating environments. In addition to low socioeconomic status, children from disadvantaged backgrounds also encounter a range of specific challenges. These often include a language barrier. In 2004, approximately 60% of the Roma population used the Roma language in daily communication [9]. Communication within the family in a language other than the language of instruction at school can hinder the acquisition of the language of instruction [9], [10]. Many Roma communities face extreme poverty, segregation, and discrimination, which is reflected in limited access to pre-school education and literacy-supporting resources. Cultural specificities, such as a strong oral tradition and limited exposure to written culture at home, can also influence the development of preliteracy skills. A bilingual environment, in which many Romani children speak Romani as their first language and Slovak as a second language, presents an

additional challenge, necessitating targeted support for students from socially disadvantaged backgrounds and the Romani ethnic group in education. Several studies clearly proved that Roma pupils achieve significantly lower scores in literacy testing than their peers from the advantaged population [11]. In this study, we focus on comparing the results from a literacy predictor test of typically developing children and children from SDB attending kindergarten. The aim of the study is to identify potential risk areas associated with the transition of children from SDB into primary education, based on the differences observed. In this study, we addressed two research questions:

1. What differences exist in the results of the literacy predictor test between advantaged children and children from SDB?
2. What proportion of children from SDB fall within the risk zone, defined by the threshold of 16th percentile according to test standards?

## 2. Research Methods

The construct under research was the literacy predictors assessed by the Literacy Predictors Test [xxx] Mikulajová [3]. The test is grounded in a theoretical model of the linguistic-cognitive mechanisms underlying the development of reading and writing skills. It is focused on key linguistic-cognitive skills involved in literacy acquisition. It consists of 9 subtests divided into three factors:

- F1–Language factor (F1a - speech comprehension, F1b - grammatical awareness, and F1c - oral-verbal skills);
- F2–Preliteracy factor (F2a- letter recognition, F2b - word reading, and F2c - phonemic awareness); and
- F3–Speed factor (F3a- Rapid automatic naming, F3b - symbols).

The test is a standardized tool. The test standards provide percentile norms for typically developing (advantaged) preschool children, covering the period from January to June prior to school entry.

To ensure construct validity, we compared our test results with the factor loads reported by the test authors. Confirmatory factor analysis confirmed a three-factor model that was statistically significantly consistent with the data ( $\chi^2 = 45.44$ ,  $df = 17$ ,  $p < .001$ ). The model fit indices indicated a very good approximation of the original structure, with a significant difference compared to the baseline model ( $\chi^2 = 334.91$  vs. ...)” 45.44).

In addition to the factor overlap analysis, we examined the concordance of percentile scores within the advantaged population. However, full replication of the percentile score distribution relative to the test norms was not achieved. In our testing, deviations from the norms were observed in five of the nine subtests, specifically in speech comprehension, grammatical awareness, phonemic awareness, and memory for numbers and symbols. In all cases, scores were overestimated—the results of advantaged children exceeded the values indicated by the test norms. The p-value ranged from 0.024 to 0.034. The effect size was verified using the Rank-biserial correlation, yielding values ranging from  $r = 0.83$  to  $0.88$ . The normality of the result distributions was analyzed separately for the advantaged group ( $n = 166$ ) and the group with special educational needs (SEN;  $n = 34$ ). The assessment was conducted using a combination of graphical methods (histograms, Q–Q plots) and formally via the Shapiro–Wilk test. The results indicated that six of the nine subtests exhibited statistically significant deviations from normality ( $p < 0.05$ ), with the most pronounced deviations observed in the word reading, symbols, and oral–verbal skills subtests. For this reason, group comparisons were not restricted to parametric procedures only, but robust non-parametric alternatives were also employed.

Data evaluation regarding the research questions was performed using several descriptive, as well as inferential methods. Children’s performance on the subtests was expressed using the parameters of mean values and variance. We also summarized the performances through the median value. When calculating the mean values, we supplemented the calculations with interval estimates calculated at a significance level of 95%. The magnitude of intergroup differences was expressed using a standardized score measure, specifically Hedge’s  $g$  parameter score. Intergroup statistical differences were calculated using two-sample t-tests; in strongly nonparametric cases, the results were supplemented with the nonparametric Mann–Whitney U test.

### 2.1 Research Sample Attributes

The research was conducted on a sample of 200 participants. The participants were preschool-aged children attending kindergarten, including those with a delay in school entry. These children were seven years old at the time of testing. The sample was divided into two groups: advantaged children ( $N = 166$ ) and children from socially disadvantaged backgrounds ( $N = 34$ ). The sample was selected by convenience sampling. Students participated in the data collection, and the sample included children from various kindergartens. Data was collected from 2019 to 2023 annually from January to June in

accordance with the methodology of the literacy predictor test used [3]. No significant difference in age distribution between the two tested groups was observed, the test result was  $\chi^2 (2, N = 120) = 7.84, p = .020$ .

**Table 1.** Characteristics of the Study Sample of Children by Age Distribution

group	age (years)			Total
	5 years	6 years	7 years	
advantaged children	61	101	4	166
children from SDB	11	21	2	34
Total	72	122	6	200

### 3. Results

We present the results in the order of the research questions posed. The first research question addressed the differences in literacy predictor test results between the two groups of children. The findings on intergroup differences are presented in two steps: (1) a comparison of children's performance on the test according to the test factors (Tables 2 and 3); and (2) a comparison of children's performance on individual subtests, presented further in the text through tables and charts (Tables 4, 5, 6 and Chart 1).

#### 3.1. Comparison of Literacy Predictor Test Results Between Children from Socially Disadvantaged Backgrounds (SDB) and Advantaged Population

The results of descriptive (Table 2) and inferential factor analyses indicate significant differences between advantaged children and children from SDB across all three monitored factors.

**Table 2.** Performance of Advantaged Children and Children from SDB: Test Factor Perspective

	language factor (F1)		preliteracy factor (F2)		speed factor (F3)	
	advantaged children	children from SDB	advantaged children	children from SDB	advantaged children	children from SDB
Valid	166	34	166	34	166	34
Median	28.00	20.25	29.00	12.00	21.00	16.00
Mean	28.47	19.58	28.14	12.79	20.49	14.94
95% CI Mean						
Upper	29.45	22.27	29.73	15.10	21.04	16.64
95% CI Mean						
Lower	27.49	16.88	26.54	10.46	19.93	13.24
Std. Deviation	7.71	6.39	10.43	6.62	4.87	3.64
P-value of Shapiro-Wilk.	< .001***	0.433	0.004***	< .001***	< .001***	0.353

**Note:** The assumption of normality was not met in several tested subgroups, specifically in subgroup factor F1 – advantaged children; factor F2 – children from SDB, as well as advantaged children; and factor F3 – advantaged children. The skewness of the data was below 2 in all cases of deviation from normality, except for factor F2 – advantaged children, where the skewness value was 2.257. Kurtosis values were below 2 in all cases, except for factor F3 – advantaged children (kurtosis = 2.676) and factor F2 – children from SDB (kurtosis = 6.350).

On the language factor (F1), advantaged children achieved higher mean ( $M = 28.47$ ) and median ( $Me = 28.50$ ) scores than children from SDB ( $M = 19.57$ ;  $Me = 20.25$ ). The confidence intervals (95% CI [27.49; 29.45] for advantaged children vs. [16.88; 22.27] for children from SDB) prove that these differences are robust and not subject to overlap. A similar pattern was observed for the preliteracy factor (F2), with advantaged children achieving a mean score of  $M = 28.14$ , compared to  $M = 12.79$  for children from SDB. The difference is also significant for the median values ( $Me = 29.00$  vs.  $Me = 12.00$ ) and is supported by 95% confidence intervals (95% CI [26.54, 29.73] vs. [10.49, 15.10]). The greatest dispersion of results was observed in the speed factor (F3), with advantaged children achieving a mean of  $M = 20.49$  ( $Me = 21.00$ ), compared to children from SDB, who achieved  $M = 14.94$  ( $Me = 16.00$ ). The confidence intervals (95% CI [19.93; 21.04] for advantaged children vs. [13.24; 16.64] for children from SDB) indicate statistically significant differences.

These differences have been confirmed by inferential statistics (Table 3). A significant difference was observed in the language factor

( $t(198) = -7.13$ ,  $p < .001$ ), with an effect size of Hedges'  $g = -1.34$ , indicating a very strong effect. Even greater differences were observed in the preliteracy factor, with  $t(198) = -8.24$ ,  $p < .001$  and Hedges'  $g = -1.55$ , indicating the strongest effect among the three factors. For the speed factor, the difference was again significant,  $t(198) = -7.60$ ,  $p < .001$ , with an effect of Hedges'  $g = -1.43$ .

**Table 3.** Inter-Factor Differences Between Advantaged Children and Children from SDB: Comparison of Performance Using Standardized Scores

	t-test	df	p-value	Hedges' g
language factor (F1)	-7.125	198	< .001***	-1.336
preliteracy factor (F2)	-8.236	198	< .001***	-1.545
speed factor (F3)	-7.604	198	< .001***	-1.426

These results clearly demonstrate that advantaged children consistently outperform children from SDB across all monitored factors, with the largest differences observed in factor F2 – preliteracy skills. At the same time, analysis of standard deviations indicates greater variability in performance among children from SDB (e.g.,  $SD = 7.71$  for the language factor vs.  $SD = 6.39$  with advantaged children), suggesting a more heterogeneous profile of their results. Overall, the differences between the groups are statistically highly significant and demonstrate a very strong practical effect.

### 3.2 Results of Data Analysis Based on Individual Subtests

In the second step, as part of addressing the first research question, we compared children's performance across the individual subtests of the test. Children's performance on the subtests is presented in Tables 4, 5, and 6. Intergroup differences are presented using the effect size parameter Hedges'  $g$  (Chart 1). This parameter represents the standardized magnitude of the difference between the compared groups and includes a correction for small sample sizes. Hedges'  $g$  is interpreted as the number of standard deviations by which the groups differ from one another. Based on the results presented in Tables 4–6, the differences in performance between advantaged children and children from SDB can be described across the three monitored factors: language (F1), preliteracy (F2), and speed factor (F3).

Within the language factor (Table 4), advantaged children achieved higher mean scores across all subtests. In the Speech Comprehension subtest, advantaged children achieved a mean score of 8.21 points (95% CI = 7.61–8.82), compared to 6.09 points (95% CI = 5.29–6.89) for children from SDB. Similarly, for the Grammatical Awareness subtest, advantaged children achieved a mean score of 6.62 (95% CI = 5.83–7.44), compared to 4.06 (95% CI = 3.43–4.68) for the SDB group. The most significant difference was observed in the Oral and Verbal Praxis subtest, with advantaged children achieving 12.57 points (95% CI = 12.17–12.97), compared to 9.76 points (95% CI = 9.57–9.97) for children from SDB.

**Table 4.** Performance of Advantaged Children and Children from SDB: Individual Subtests (Language Factor)

	speech comprehension		grammatical awareness		oral and verbal praxia	
	advantaged children	children from SDB	advantaged children	children from SDB	advantaged children	children from SDB
Valid	166	34	166	34	166	34
Median	8.00	4.00	8.00	4.00	13.00	12.00
Mean	7.91	4.21	7.98	4.63	12.57	10.74
95% CI Mean						
Upper	8.22	5.13	8.56	5.83	12.97	11.90
95% CI Mean						
Lower	7.61	3.29	7.40	3.43	12.17	9.57
Std. Deviation	2.00	2.64	3.97	3.44	2.61	3.33

In the preliteracy factor (Tab. 5) we see similar trends. In reading letters, the average score for advantaged children was 11.45 (95% CI = 10.37–12.52), while for children from SDB it was only 2.73 (95% CI = 1.18–4.27). In reading words, the difference was even greater – advantaged children achieved 8.79 (95% CI = 8.54–9.05), while children from SDB achieved only 0.09 (95% CI = –0.06–

0.24). In the phonological awareness subtest, the performance of advantaged children was 11.31 (95% CI = 10.86–11.76), while in children from SDB it was only 6.71 (95% CI = 5.87–7.55).

**Table 5.** Performance of Advantaged Children and Children from SDB: Individual Subtests (Preliteracy Factor)

	reading letters		reading words		phonological awareness	
	advantaged children	children from SDB	advantaged children	children from SDB	advantaged children	children from SDB
Valid	166	34	166	34	166	34
Median	11.00	1.50	0.00	0.00	12.00	6.00
Mean	11.45	2.74	0.79	0.06	11.31	6.71
95% CI Mean Upper	12.52	4.29	1.04	0.18	11.76	7.55
95% CI Mean Lower	10.37	1.18	0.54	-0.06	10.86	5.87
Std. Deviation	7.02	4.45	1.61	0.34	2.95	2.41

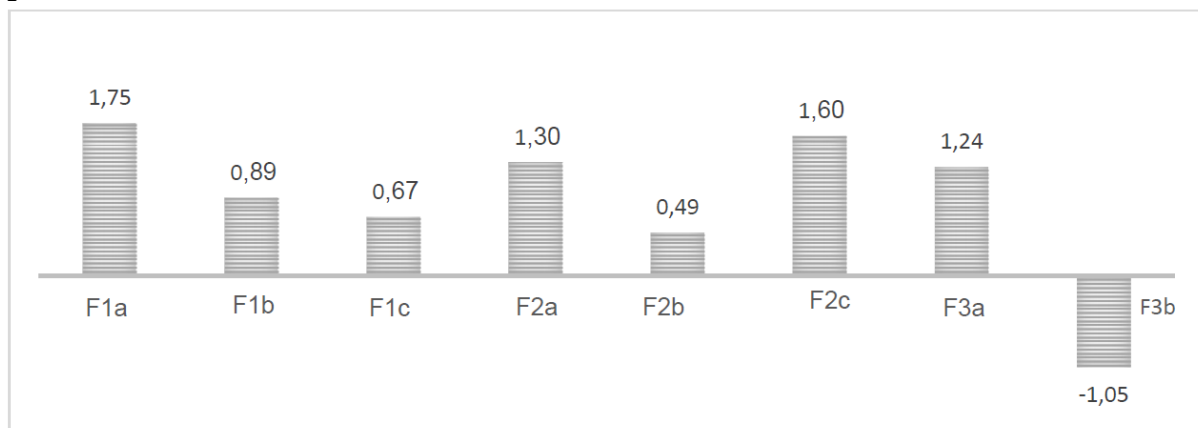
Speed factor (Tab. 6) highlighted the differences, especially in RAN. In the symbol subtest, advantaged children scored 15.93 points (95% CI = 14.79–17.07), while children from SDB scored 7.24 (95% CI = 6.18–8.31). On the reverse-scored RAN\_R subtest, advantaged children achieved a mean score of 61.17 (95% CI = 58.13–64.21), indicating a shorter completion time and therefore better performance than children from SDB, who scored 84.91 (95% CI = 73.67–96.15).

**Table 6.** Performance of Advantaged Children and Children from SDB: Individual Subtests (Speed Factor)

	symbols		RAN (R)	
	advantaged children	children from SDB	advantaged children	children from SDB
Valid	166	34	166	34
Median	15.00	7.00	59.00	71.50
Mean	15.93	7.24	61.17	84.91
95% CI Mean Upper	17.08	8.62	64.21	96.16
95% CI Mean Lower	14.79	5.86	58.13	73.67
Std. Deviation	7.46	3.98	19.82	32.22

**Note:** The RAN (R) subtest was reverse-scored, with higher scores indicating poorer performance.

Overall, in all three factors the differences between the groups were significant, with advantaged children consistently achieving higher mean values and narrower confidence intervals, indicating their higher level of language, literacy and speed skills compared to learners from SDB. Intergroup differences between advantaged children and children from SDB were also confirmed using the Hedges' *g* effect index.



**Legend:** F1–Language factor (F1a - speech comprehension, F1b - grammatical awareness, and F1c -oral-verbal skills); F2–Preliteracy factor (F2a- letter recognition, F2b - word reading, and F2c - phonemic awareness); and F3–Speed factor (F3a- Rapid automatic naming, F3b - symbols).

**Fig. 1.** Differences in Subtest Performance between Advantaged Children and Children from SDB (Hedges' *g*)

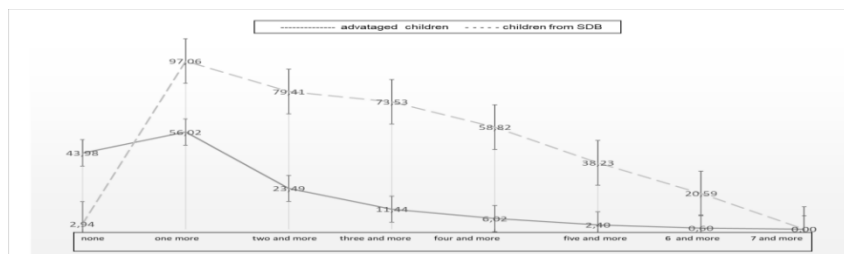
The largest effect was observed in the speech comprehension subtest, with Hedges' *g* = 1.745 ( $t = 9.306$ ,  $p < .001$ ), indicating a highly significant difference between the groups. Similarly strong effects

were found for phonological awareness ( $g = 1.600$ ,  $t = 8.534$ ,  $p < .001$ ) and reading letters ( $g = 1.303$ ,  $t = 6.947$ ,  $p < .001$ ). High effect sizes were also observed in the symbols subtest ( $g = 1.237$ ,  $t = 6.598$ ,  $p < .001$ ), confirming a significant difference in performance. Medium effect sizes were found for grammatical sense ( $g = 0.893$ ,  $t = 4.762$ ,  $p < .001$ ) and for oral and verbal praxia ( $g = 0.666$ ,  $t = 3.553$ ,  $p < .001$ ). The lowest effect was observed in reading words ( $g = 0.493$ ,  $t = 2.628$ ,  $p = .005$ ), although it was still statistically significant. The RAN\_R subtest has a specific position, as its reverse scoring means that a longer completion time indicates actually a lower performance. The effect in this subtest was in the opposite direction ( $g = -1.057$ ;  $t = -5.638$ ,  $p < .001$ ), further confirming the significant disadvantage of the SDB group.

Overall, the effect sizes across the subtests ranged from medium to very large values, with all differences reaching statistical significance. These findings are consistent with, and further supported by, the graphical visualization of the Hedges'  $g$  index.

### 3.3 Results of Data Analysis in Relation to Percentile Norms

The second research question addressed the extent to which children from SDB lag behind advantaged children in their performance. In this analysis, we focused on the 16th percentile performance threshold in the subtests for advantaged children, examining how many children from SDB scored below this benchmark. We selected the 16th percentile because the authors of the Literacy Predictor Test regard it as the threshold distinguishing normative from subnormative performance.



**Fig. 2.** Cumulative Percentages of Children in the Subnormative Range: Comparison of Advantaged Children and Children from SDB

Chart 2 compares advantaged children with those from SDB by the number of subtests scored below the 16th percentile. While 44% of advantaged children had no low scores, only 3% of SDB children did. Nearly all SDB children (97%) had at least one subtest below the threshold, compared with 56% of advantaged children. The gap widened with more deficits: two or more subtests (23% vs. 79%), three or more (11% vs. 74%), and at higher levels the difference was striking—four or more (6% vs. 59%), five or more (2% vs. 38%), and six or more (1% vs. 21%). Overall, impairments were rare among advantaged children, who mostly clustered in the zero or low-risk range, while SDB children showed widespread and systematic deficits, even at moderate risk levels.

Analysis of the cumulative risk index revealed statistically significant differences between advantaged children and children with SEN. The chi-square test results indicated that the distribution of the number of subtests below the threshold differed significantly between groups ( $\chi^2(6) = 75.80$ ,  $p < .001$ ), with an effect size of Cramer's  $V = 0.62$ , representing a strong association. While only 6.0% of advantaged children had test score impairments in four or more subtests, this proportion reached 58.8% among the children from SDB. The odds ratio analysis indicated that children from SDB were over twenty times more likely to fall into this risk category compared to advantaged children ( $OR = 22.3$ ). This result is clearly illustrated in the graph, which shows that test score impairments among advantaged children are limited to individual subtests, whereas children from SDB exhibit a systematic accumulation of subnorm test scores. The combination of descriptive and inferential analysis data confirms that children from SDB experience more widespread and severe language-cognitive difficulties than advantaged children.

## 4. Discussion

Our findings corroborate the conclusions of several previous studies. Dolean [12] as well as McIntosh et al. [13] found that the phonological awareness of Romani children is significantly lower than that of their non-Roma peers. We agree with the recommendation of Dolean [12] that support for the development of phonological awareness in children from SDB should begin before the 1st grade. Our research also confirmed the findings of Melby-Lervåg and Lervåg [10, 14], showing that Romani children—who can also be considered as coming from a bilingual environment—exhibit a substantial deficit in language comprehension (aggregate effect size:  $d = -1.12$ ). Our research showed that nearly 60% of children from SDB achieved statistically significantly lower scores in four or more of the nine

subtests. It is therefore essential to focus on the comprehensive development of linguistic and cognitive skills, as concentrating on a single area, such as phonological awareness, may not be effective at all. McIntosh et al. [13] refer to several studies [15, 16], which demonstrated that although phonological awareness improved significantly immediately after completing the intervention program, this did not translate into higher literacy levels two years later. Effective interventions for Romani children should consider these specificities and adopt integrated approaches that combine comprehensive language support, culturally sensitive pedagogical methods, and active involvement of parents and the community. Dolean et al. [12] emphasize the need for early educational interventions, and Heckman [17] reports that early interventions targeting the development of children from SDB yield much higher returns than interventions applied at a later age, such as reducing child–teacher ratios or providing tuition subsidies. His conclusions also indicated that society often underinvests in the early development of this group.

Currently, changes in Slovak school legislation since 2021 can also be seen as a form of support for the development of children from SDB. This includes, for example, the introduction of compulsory pre-primary education for all five-year-old children—one year before the start of formal schooling—as well as the implementation of support measures within school practice, which teachers are expected to provide to children and learners directly in the school environment.

### Acknowledgement

This study was supported by the project VEGA 1/0714/24: ‘Research Reflection on the Reform of the Counseling System in the Context of School Practice, with Reference to the Development and Validation of a Platform of Diagnostic Tools for Teachers.’ Principal Investigator: Ass. Prof. M. Cabanová, PhD.

### REFERENCES

- [1] Van Kleeck A., “Emergent literacy: Learning about print before learning to read”, *Topics in Language Disorders*, 10(2), 1990, pp. 25–45. <https://doi.org/10.1097/00011363-199003000-00004>
- [2] Weigel D. J., Martin S. S., Bennett K. K., “Mothers' literacy beliefs: Connections with the home literacy environment and pre-school children's literacy development”, *Journal of Early Childhood Literacy*, 6(2), 2006, pp. 191–211. <http://dx.doi.org/10.1177/1468798406066444>
- [3] Mikulajová M., “Test prediktorov gramotnosti”, in Mikulajová M. et al., *Čítanie písanie a dyslexia s testami a normami*, Bratislava, SAL, 2012.
- [4] Whitehurst G. J., Lonigan C. J., “Child Development and Emergent Literacy”, *Child Development*, 69(3), 1998, pp. 848–872. doi:10.1111/j.1467-8624.1998.tb06247.x
- [5] Petrová Z., Zápotočná O., Urban K., Urban M., “Development of early literacy skills: A comparison of two early literacy programmes”, *Journal of Pedagogy*, Warsaw, 11(2), 2020, pp. 51–72. <https://doi.org/10.2478/jped-2020-0011>
- [6] Biro M., Smederevac S., Tovilovic S., “Socioeconomic and cultural factors of low scholastic achievement of Roma children”, *Psihologija*, 42(3), 2009, pp. 273–288. <https://doi.org/10.2298/PSI0903273B>
- [7] Buckingham J., Wheldall K., Beaman-Wheldall R., “Why poor children are more likely to become poor readers: The school years”, *Australian Journal of Education*, 57(3), 2013, pp. 190–213. <https://doi.org/10.1177/0004944113495500>
- [8] Şengönül T., “A review of the relationship between parental involvement and children's academic achievement and the role of family socioeconomic status in this relationship”, *Pegem Journal of Education and Instruction*, 12(2), 2022, pp. 32–35
- [9] Analytical report (PHARE / RAXEN / FRA) — Slovakia: Minority education: Slovak case studies and projects (Mother and Child, projekty v MŠ), *FRA / PHARE dokument*, (201x), pp. (nešpecifikované). [https://fra.europa.eu/sites/default/files/fra\\_uploads/279-edu-slovakia-final.pdf](https://fra.europa.eu/sites/default/files/fra_uploads/279-edu-slovakia-final.pdf)
- [10] Melby-Lervåg M., Lervåg A., “Reading comprehension and its underlying components in second-language learners: A meta-analysis of studies comparing first- and second-language learners”, *Psychological Bulletin*, 140(2), 2014, pp. 409–433. <https://doi.org/10.1037/a0033890>
- [11] Martan V., Srebačić I., “Readiness of Roma children for reading and writing acquisition in the Croatian language – An equal starting point for all?”, *Hrvatska revija za rehabilitacijska istraživanja*, 56(2), 2020, pp. 83–104. <https://doi.org/10.31299/hrri.56.2.5>
- [12] Dolean D., “Enhancing the Pre-Literacy Skills of Roma Children: The Role of Socio-economic Status and Classroom Interventions in the Development of Phonemic Awareness”, *The New Educational Review*, 45(3), 2016, pp. 39–51. <https://doi.org/10.15804/tner.2016.45.3.03>

- 
- [13] McIntosh B., Crosbie S., Holm A., Dodd B., “Enhancing the phonological awareness and language skills of socially disadvantaged preschoolers: An interdisciplinary programme”, *Child Language Teaching and Therapy*, 23(3), 2007, pp. 267–286.
- [14] Lervåg A., Dolean D., Tincaş I., Melby-Lervåg M., “Socioeconomic background, nonverbal IQ and school absence affects the development of vocabulary and reading comprehension in children living in severe poverty”, *Developmental Science*, 22(5), 2019, pp. 1–15. <https://doi.org/10.1111/desc.12858>
- [15] Nancollis A., Lawrie B., Dodd B., “Phonological awareness intervention and the acquisition of literacy skills in children from deprived social backgrounds”, *Language Speech and Hearing Services in Schools*, 36, 2005, pp. 325–335.
- [16] Bishop D. V. M., Adams C., “A prospective study of the relationship between specific language impairment, phonological disorders and reading retardation”, *Journal of Child Psychology and Psychiatry*, 31, 1990, pp. 1027–1050.
- [17] Heckman J. J., “Skill formation and the economics of investing in disadvantaged children”, *Science*, 312(5782), 2006, pp. 1900–1902. doi:10.1126/science.1128898

---

## Authors

### A

Abbas Lutfi Hussein, 194  
Abeer Al-Mahdawi, 643  
Adin Caspary, 368  
Adriana Fernández-Criado, 620  
Alaa Alzahrani, 602  
Alan Bruce, 134  
Aliona Shestakova-Stukun, 186  
Anna Hainoja, 452  
Arzu Koçak, 83  
Asma Mohammed Alshehri, 54  
Atyaf Hasan Ibrahim, 578

### B

Brad Barker, 31  
Bronislava Kasáčová, 516  
Burcu Büyükkal, 363  
Bushra Nima Rashid, 236  
Bushra Saadon Mohammed Alnoori, 236

### C

Carlos Cazco-Maldonado, 398  
Caterina Poggi, 27  
Christina Rapti, 173  
Claudia Elena Dinu, 634  
Cristiano Sanna, 160

### D

Daichi Shiraishi, 422  
Daisy De Gioannini, 627  
Der-Jen Sun, 471  
Diane Boothe, 368  
Dietmar Tatzl, 374

### E

Ebtesam Abdulhaleem, 602  
Ehsan Zolfaghari Younesi, 563  
Eleni Tsangari, 21  
Elisa Lamura, 328  
Emma Jackovičová, 609  
Emma Smit, 457  
Erick Pacheco-Delgado, 398  
Eva Schaeffer-Lacroix, 186

### F

Fatima Raheem Almosawi, 194  
Fatimah Aljayzani, 571  
Ferdı Bozkurt, 363  
Ferran Costa Marimon, 181  
Francesca Riva, 203

**G**

Gaël Lejeune, 186  
Gillian Spicer, 148

**H**

Hagit Arieli Chai, 409  
Hajar Mahfoodh, 140, 255  
Hanna Podosynnikova, 44  
Hashini Abeysena, 475

**I**

Iglika Nikolova-Stoupak, 186  
Imelda Graham, 134  
Inese Ozola, 508  
Irina Gheorghiu, 634  
Irina Ionita, 634  
Irina-Ana Drobot, 336  
Izabela Olszak, 543

**J**

Jaron Müller, 500  
Joana Aguiar, 465  
José Pomavilla, 104, 210, 356  
Joseph Jack Horgan, 508  
Joseph Vancell, 445

**K**

Kais Al-Saedi, 643  
Katri Sirkel, 452  
Kevin Schuck, 27  
Kirsi Korkealehto, 66, 100  
Kosuke Nakashima, 272  
Krunoslav Mikulan, 165

**L**

Laura Distefano, 263  
Lenka Lipárová, 516  
Letizia Cinganotto, 27  
Liliia Kuchmarenko, 70  
Lubaba Sanjana, 75  
Lucia Taylor, 532

**M**

Mansour Kadhim Hejal Al-Kaabi, 113  
Maria Ana Cumpăt, 596  
Maria-Lavinia Moldovan, 588  
Mariami Akopian, 350  
Marian Trnka, 297, 523  
Mariana Cabanova, 523  
Marianna Hudcovičová, 217  
Marili Douzina, 128  
Mario Pace, 379  
Mario Paiano, 160  
Martha González, 356  
Mauro Villacrés, 356

---

Mayesha Farzana Mitu, 75  
Meghan McInnis-Domínguez, 153  
Melissa Barchi Panek, 492  
Mellissia Walles, 267  
Meryem Aherrahrou, 555  
Michal Macinka, 60  
Milena Lipnická, 280  
Monika Brozmanová, 289, 297, 304

**N**

Nada AlJamal, 484  
Nada Nasser Alghali, 120  
Nadia Majeed, 194  
Nahid Zarei, 567  
Naira Poghosyan, 385  
Natália Rozmanová, 38  
Negin Momeni, 567  
Niculina Nae, 244  
Nobumi Kobayashi, 342  
Nouf Jazaa Aljohani, 91  
Nour Elhouda Dib, 392

**O**

Olga Morgunova, 44  
Ostap Bodyk, 44

**P**

Panagiotis Panagiotidis, 173  
Paola Santamaría, 356  
Predrag Oreški, 165

**R**

Rasim Tayyeh Gahgoh, 113  
Richard Chapman, 440  
Rowan Samoilov, 535  
Roxana Barbieru, 634  
Roxana Neagu, 634  
Roya Khoii, 563  
Ružena Čiliaková, 297, 304

**S**

Sachiyo Sekiguchi, 223  
Salih Mahdi Adai AlMamoory, 312  
Sara Biasin, 248  
Senem Seda Demirtaş, 550  
Shadiya AlHashmi, 140, 255  
Silvia Canto, 419  
Simona Serafimovska, 320  
Simoneta Babiaková, 289  
Sofia Hashim, 140, 255  
Sophia Cadoux, 104, 210  
Stefan Colibaba, 634  
Stefano Maranzana, 432  
Stepan Hubalovsky, 60  
Sua'd Hafedh Mahdi, 312  
Susanna Asatryan, 403

**T**

Tanja Psonder, 15  
Tatiana Kozlova, 229  
Tatjana Sinkus, 508

**V**

Vera Leier, 66, 100  
Vesna Koceva, 320  
Vladimir Legac, 165

**Y**

Younis Al-Dalawi, 643

# The Scientific Committee of the International Conference "Innovation in Language Learning - 18th Edition"

Dietmar Tatzl - FH JOANNEUM University of Applied Sciences (Austria)  
M. Gregory Tweedie - University of Calgary (Canada)  
Roya Khoii - Islamic Azad University - North Tehran Branch (Islamic Republic of Iran)  
Nahid Zarei - Islamic Azad University - Maragheh Branch (Islamic Republic of Iran)  
Bushra Saadoon Mohammed Alnoori - Al-Mansour University College (Iraq)  
Alan Bruce - Universal Learning Systems (Ireland)  
Luisa Panichi - University of Pisa (Italy)  
Elisabetta Delle Donne - Pixel (Italy)  
Silvia Minardi - Lend (Italy)  
Carmen Argondizzo - University of Calabria (Italy)  
Richard Chapman - Università degli Studi di Ferrara (Italy)  
Letizia Cinganotto - University for Foreigners of Perugia (Italy)  
Jean M. Jimenez - University of Calabria (Italy)  
Olga Medvedeva - Vilnius University - Institute of Foreign Languages (Lithuania)  
Mario Pace - University of Malta (Malta)  
Joseph Vancell - University of Malta (Malta)  
Izabela Olszak - The John Paul II Catholic University of Lublin (Poland)  
Elisabete Mendes Silva - Polytechnic Institute of Bragança (Portugal)  
Anca Colibaba - GR. T. Popa University / EuroED Foundation (Romania)  
Stefan Colibaba - Al. I. Cuza University (Romania)  
Tatiana Sidorenko - Tomsk Polytechnic University (Russian Federation)  
Inmaculada Senra Silva - Universidad Nacional de Educación a Distancia (Spain)  
Dönercan Dönük - Mersin University (Turkey)  
Nebojša Radić - University of Cambridge (United Kingdom)  
Diane Boothe - Boise State University (United States)  
David Rothman - Queensborough College, City University of New York (United States)  
Christine M. Ristaino - Emory University (United States)

ISBN: 979-12-80225-91-7  
EURO: 20,00



**Pixel**

INTERNATIONAL CONFERENCES

EDITED BY

PIXEL

Via Luigi Lanzi, 12 - 50134 Florence (Italy)

Tel. +39 055 489700 - E-mail: [conference@pixel-online.net](mailto:conference@pixel-online.net)

Conference Website: <https://conference.pixel-online.net/ICT4LL>

