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Jaroslav Kříž

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A Message from the Editor-in-Chief

Dear colleagues,

We are pleased to present you with the proceedings of the 14th International Conference on Adult Education – Competences for Life (IAEC 2024), which took place on December 10, 2024 in Prague at the Faculty of Education, Charles University.

Charles University is the oldest university in Central Europe and has traditionally supported excellence in the humanities and other fields. The Czech Andragogy Society, co-organizer of the conference with the Faculty of Education, Charles University, is the largest professional organization in the Czech Republic specializing in development and research in the field of adult education. The conference focused on the development and strengthening of adult competences not only within formal education, but also at the professional, civic and personal levels. The emphasis was placed on the changing context of the present time, characterized by constant changes and technological progress. The international scientific conference was attended by a number of experts specializing in adult education. Among the participants were representatives from the Czech Republic, Slovakia, Poland, Germany and Australia.

The content of the proceedings follows the main topics of the conference, which were presented in individual sections:

- Current challenges of school management
- Support for pedagogical development of teachers
- The impact of global changes on adult education strategies
- Seniors and the contemporary world

A number of key topics were discussed during the conference, which fundamentally influence the current form of adult education. These topics are also reflected in the analytical and research articles contained in these proceedings. The main areas of interest included the use of digital technologies in adult education and learning, including artificial intelligence, which enables the personalization of the educational process and opens up new possibilities for individualized adult learning. Another key topic was the strategic document of the Ministry of Education, Youth and Sports entitled Competence Framework for Graduate Teachers. The Competence Framework for Graduate Teachers was presented at the conference as a key tool for improving the quality of training of future teachers in the Czech Republic. Participants discussed not only its content and significance, but also specific implementation options at faculties preparing teachers. They focused on the integration of individual competencies into the curriculum, methods of their development and assessment during studies and pedagogical practices. Last but not least, the discussion focused on supporting the competencies of seniors as a prerequisite for their active participation in social events and maintaining autonomy in various life situations.

All included contributions are the result of the authors' original professional work, have not yet been published and were not offered for publication in other periodicals or proceedings at the time of submission.

We believe that the proceedings will bring stimulating impulses to experts, practitioners and students and contribute to the development of research and innovation in the field of adult education.

Sincerely,
Jaroslav Kříž

Basic skills of self-learning and self-directed learning

Dominika Temiaková

Abstract:

The theoretical study discusses the concepts of self-learning, self-directed learning, and autodidacticism and the differences between them. Based on the reports of the World Economic Forum (2023, 2024), humanity faces an unstable and constantly changing world in the form of risks that can be faced through Education 4.0. However, this new approach to lifelong learning requires a new perspective on competencies, including self-learning competencies, which are becoming essential. The topic of self-learning and self-directed learning thus comes to the forefront of interest and requires new research both among students and adults.

Keywords:

self-learning, self-directed learning, autodidacticism, Education 4.0, students, adults, skills

1. Introduction

The importance of informal learning in education has long been recognized. A person's education cannot be limited only to obtain or increasing qualifications with the aim of employability. Many competencies or characteristics, the importance of which we appreciate in the 21st century, such as critical thinking, self-confidence, self-esteem, or a change of perspective, can be developed precisely through self-directed educational opportunities or activities outside formal or informal frameworks. Such learning, informal learning, can have an individual or group character, this process is highly unintentional, often unconscious, without externally determined criteria (in the form of goals or content), without an institutionally determined professional (educator, lecturer, instructor, etc.). This kind of learning is relatively difficult to grasp, describe, and researchable. Still, at the same time we consider it to be the most effective because, among the three types of learning activities, informal learning is the most based on the interests and needs of learners.

Informal learning takes on a double importance in total institutions or other closed ones or excluded environments. Since it is known that the individuals of such communities (convicts, marginalized Roma communities, low-skilled adults, but also other social groups, such as the elderly or the disadvantaged) do not aspire to continue their education, or they are not aware of the importance of education and do not consider it to be of significant value, nor do they have the motivation to participate in formal or informal education. However, informal learning is unstoppable. The idea of formal or informal education, which is eventually imposed on them, is not effective - such an approach can strengthen the already negative perception of education or the attitude towards it that many may have (research shows that the primary cause is a negative experience from the formal education system: see, e.g., Irwin, 2008; Warr, 2016). In particular, the inflexibility of education is subject to criticism, where negative experiences from the previous learning process, which are rooted in identity, are replicated. It is the informal and flexible educational environment that has the potential to change these negative experiences. Ideally, adults should use a space where they can voluntarily engage in different forms of learning, at their own pace and in times and situations of their choosing.

2. Self-learning and self-directed learning

In adulthood, a person acquires primarily three social roles that are not close to him in childhood and youth - these are professional, parental, and partner roles (Temiaková et al., 2021). Theories of adult learning help to understand how adults learn. According to Mezirow cited by G. Manning (2007, p. 104), "The relationship between adult learning and self-directed learning is a

topic worth exploring on both theoretical and practical grounds. ...no concept is more central to what adult education is all about than self-directed learning”.

Already M.S. Knowles (1984), supported by many other authors (see e.g. Merriam, 2001, Arghode et al., 2017, Pew, 2018, Kiwelu & Ogbonna, 2020), defined the basic principles of adult learning:

- motivation to learn - the motivation of adults to learn comes from within,
- experience - acquired previous experiences of adults should not be ignored in the learning process, because they are a source for learning,
- readiness to learn - the relevance of learning to the tasks and problems that adults face, both in work and personal life. Adults ignore learning that has no relevance to their lives,
- practical orientation to learn - learning by doing - adults prefer the practical aspect of the learning process,
- self-conception - adults choose what they want to learn, how they want to learn, and when they want to learn. They plan learning goals and evaluate the learning process itself. Their decision to learn is influenced by many factors, such as social roles, educational needs, age, environment, and available time.

In this context, it is important to briefly define the terms self-learning and self-directed learning. They are not synonyms because they differ in key aspects. These are two approaches to learning processes, while the difference lies mainly in the degree of control and active management of learning by the learning adult. **Self-learning**¹ Focuses on the process in which an individual learns independently, often without formal guidance from a teacher, lecturer, or institution. It is about the independent acquisition of knowledge and skills, while the sources of such learning are wide-ranging (books, internet, tutorials, practical experience). According to Kiwelu & Ogbonna (2020, p. 51), “There is no age or time limit for self-learning, it can happen when someone is young or when an adult as long as is aware of the self-learning process.”

In contrast, **self-regulated** (or self-directed) **learning** is a process that includes not only independent learning but also active management and monitoring of one's learning. In this approach, the learner sets goals, plans his learning, monitors his progress, and reflects on how to improve his learning based on the feedback he receives. Knowles (1975, p. 18) describes self-directed learning as “a process in which individuals take the initiative without the help of others in diagnosing their learning needs, formulating goals, identifying human and material resources, and evaluating learning outcomes”. Thus, self-directed learning is a more systematic process that includes different phases of management.

Table 1. Differences in self-learning and self-directed learning

Criterion	Self-learning	Self-directed learning
Level of independence	The adult learns without formal structure and external guidance.	The adult actively directs and monitors his learning, although he may use external resources and feedback.
Planning and goals	It may be unplanned or disorganized; the student learns at his own pace and interest.	Adults set specific goals and actively plan how to achieve them.
Monitoring progress	Monitoring of progress or evaluation of results may be lacking.	The adult regularly monitors his progress, evaluates his results, and adapts his learning.

¹ Autodidacticism is a type of self-teaching. It is a process of self-directed learning in which individuals acquire knowledge, skills, or abilities without a formal education system or educators. Self-didacticism is about complete independence and finding resources on your own, while self-directed learning includes a broader framework that includes content structuring and assessment to improve the learning process and adapt it to individual needs. An autodidactic approach is often associated with a deep interest or passionate desire to learn something at a high level without a formal education system or support. People who describe themselves as self-taught are usually highly motivated and independent, so not all self-learning is also self-taught.

Reflection and metacognition	There may be a lack of activity associated with reflection and analysis of learning processes.	High level of metacognition - the adult reflects on his learning, which helps him improve.
Learning structure	Often there is no structure or organized plan.	The learning process is structured and includes phases of planning, monitoring, and evaluation.
An example	If an adult chooses to learn a new language through an app or reading books, they can choose their own time and way of learning, without formal goals or assessments.	If an adult sets a goal to learn a new language within six months, he creates a learning plan, regularly assesses his progress (e.g. through tests or self-assessment), and adapts his learning accordingly.

Source: OpenAI. (2025)

3. Education 4.0 as the key to the future

The world is changing faster and faster. This is not a new phenomenon, but adapting to these changes is becoming increasingly difficult for the human brain. The Global Risks Report (2024), published by the World Economic Forum (WEF), lists the most serious risks humanity may face in the next decade against the backdrop of rapid technological change, economic uncertainty, a warming planet, and conflict. It divides risks into two horizons – short-term (up to two years) and long-term (up to ten years). In the context of ten years, the most significant risks are defined as:

1. Extreme weather fluctuations
2. Critical changes in Earth's ecosystems
3. Biodiversity loss and ecosystem collapse
4. Depletion of natural resources
5. Misinformation and disinformation
6. Adverse effects of AI technologies
7. Involuntary migration
8. Cyber security
9. Polarization of societies
10. Air pollution

One, if not the most fundamental, agent for adapting to these changes is Education 4.0, which transforms the philosophy of education into an inclusive, lifelong experience, where the responsibility for building skills is transferred to the learner, with educators and mentors acting only as facilitators. According to The Future of Jobs Report 2023 (2023) by WEF this approach can be applied in lifelong learning, both in school (not excluding higher education) and in further education, which is more flexible than school education. The three critical skills targeted by Education 4.0 are:

- problem solving
- cooperation,
- adaptability.

Problem-solving is at the top of any educational institution's essential skills. In the modern educational process, it is necessary to introduce the so-called normalization of problems: leading students and learning adults to curiosity, readiness to accept challenges, creating space for individual and group work, analyzing the situation and the ability to ask questions leading to the identification of the root cause of the problem, creating possible solutions, experimenting and testing solutions on a small scale, determining the best solution and monitoring. During these processes, partial skills such as *creativity*, *ability to analyze data*, *persistence*, and *critical thinking* are developed. The teacher's role is to support students in solving problems on their own by providing problem-solving strategies that students and adult learners can refer to when they get stuck in solving a problem. Critical skill **cooperation** is the opportunity to experience different roles in a social group - sometimes as a team leader, other times as a team member. Cooperation is framed by input data (in the sense of provided data, information, or evidence) and effective persuasion, and has the "power" to influence the willingness of students or learners to change their

opinions when they are confronted with new information/data/evidence that contradicts their own original belief. This skill aims to teach students to develop relationships with all types of personalities, work styles, and environments, to act quickly to reduce tension in a group, and to resolve conflicts in any team. To learn to be respectful communicators, whether communicating in person, online, through audio, the written word (from micro-messages to long texts), and active listening. In education, it is important to implement three elements of cooperation in daily educational activities: *interpersonal communication*, *conflict resolution*, and *task management*. The **ability** to adapt requires cognitive, behavioral, and affective (emotional) stimuli that develop *resilience*, *assertiveness*, and *self-regulation*. One of the approaches to the development of adaptability is the creation of a space for the self-regulation process of students and learners, in which they evaluate their expertise in a certain area, set educational goals, work on developing skills and gain experience, re-evaluate their expertise, and identify shortcomings. Through this cycle as a result of self-evaluation and feedback, adaptive thinking is created in students.

4. Discussion

Learning to learn is one of the basic competencies for life in the 21st century. This ability is important in adapting to changes in the work, social, and personal life of every student or adult, which we cannot avoid as humanity. There is no uniform, best procedure or guaranteed technique for learning as effectively as possible. But we can talk about these basic skills that are important in self-learning:

- time management (ability to set goals, create plans and meet deadlines)
- self-management and self-discipline (ability to maintain internal motivation, focus and consistency, focus and maintain attention on learning tasks, minimizing distractions)
- the ability to set goals (defining achievable main and sub-educational goals)
- working with resources (effective search, selection and use of various learning resources)
- the ability to think critically (analyzing and evaluating information in order to make decisions and draw conclusions)
- adaptability and self-reflection (reflection of what has been learned, achievement of goals and progress, identification of problems in the learning process, change of learning strategies or tools used in learning)
- reflection and feedback (seeking and using feedback from external sources).

Learning how to learn is among the fundamental skills of lifelong learning.

The meta-analysis revealed positive relationships between self-directed learning and internal locus of control, motivation, performance, self-efficacy, and support (Edmondson, et al., 2012, Boyer, et al., 2014). Another study (Tekkol & Demirel, 2018) finally examined the relationship between university students' self-directed learning skills and their lifelong learning tendencies. These two were found to be related to each other. A moderate and positive relationship existed between them. Lifelong learning and self-directed learning have similar properties and at times include one another. The results of their study suggest that for improved practices, instructional environments should be designed in a way to improve students' self-control skills and these environments should include the use of reflective journals, learning performance evaluation scales, and cognitive and/or upper-cognitive learning strategies.

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