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The Relationship Between Adult Learning Education and The Transformation of Tacit Knowledge Comparative Research on Cases Studies in Hungary and Slovakia

Background

The history, culture and traditions of Hungary and Slovakia are linked in many ways. This is because Hungarians and Slovaks lived together in the 19th century in the Austro-Hungarian Empire and in the 20th century in the Soviet Union. After the break-up of both empires, they existed as independent states, but shared roots and attitudes are present in many areas (economy, society, culture, etc.). After the First World War, the map of Europe was significantly redrawn. The break-up of the Austro-Hungarian Monarchy and the loss of valuable Hungarian-majority territory in Hungary, but the creation of Czechoslovakia in the same period. Czechoslovakia, which was founded on 28 October 1918, was very heterogeneous in terms of nationality: 46% of the population were of Czech, 13% of Slovak, 27% of German, 8% of Hungarian and 3% of Ukrainian and Polish nationality. The large number of Hungarians living in what is now Slovakia became a minority as a result of the formation of Czechoslovakia following the Versailles Peace Accords at the end of the First World War. They have been legally bound to Czechoslovakia and Slovakia for more than 100 years, but their kinship, cultural and linguistic ties and ethnic identity remain strong links to Hungary.

The Selye János University in Komárno was established on 23 October 2003 by the National Council of the Slovak Republic on the basis of Act No. 465/2003 Coll. The law entered into force on 1 January 2004. Selye János University is the only public higher education institution in Slovakia with legal personality, teaching in the language of the national minority - Hungarian - and the highest level of the educational system from

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kindergarten to university. The establishment of the University is a unique and historic moment not only for higher education in Slovakia, but also for the history of the European Union. J. Selye University was established to increase the qualification level of the Hungarian minority in Slovakia. Higher qualification levels can create equal opportunities for ethnic Hungarians on the labour market and can decrease unemployment in the regions with significant Hungarian population.

Our study focuses on teacher training, inservice-training, especially methodology and evaluation of training and further education for part-time students and teachers, with a special focus on the transformation of tacit knowledge.

Context

The term „tacit knowing" or „tacit knowledge" was first introduced into philosophy by Michael Polanyi in 1958 in his book *Personal Knowledge*. He famously summarises the idea in his later work *The Tacit Dimension (1966)* with the famous quote *"we can know more than we can tell"*. In the case of tacit knowledge, we learn from experience, while explicit knowledge is knowledge that can be easily put into words and formalised. (Mészáros-Vass, 2022)

Based on the above, the two key questions of our study are:

- What innovative learning management and teaching methodology supports the transformation of tacit knowledge in pre-service and in-service teacher training?
- How brings the comparison of two countries a better understanding for similarities and differences at the international, national and local levels?

To answer both of these questions, it is worth starting - without claiming completeness - with the question "Why?". More specifically, why did the circus of learning and competency-based paradigm and transformation of tacit knowledge come to the fore? The first answer will be formulated in terms of the characteristics of an ever faster changing world, called VUCA-world, and closely related to this, the elements and challenges of a changed skill set. The VUCA-world (Volatile, Uncertain, Complex, Ambiguous) is a rapidly changing, unpredictable, complex, and uncertain realm (Fadel, Bialik & Trilling, 2015) Kate Whiting described the top 10 skills that would best support lifelong learning and future work in 2025. Over the next 5 years, what can be expected to come to the fore are the skills of analytical thinking and innovation, active learning and learning strategies, complex problem solving, critical thinking and analysis, creativity, originality and initiative, leadership and social impact, technology use, monitoring and control, technology design and programming, resilience, stress tolerance and flexibility, thinking, problem solving, and conceptualisation (Whiting, 2020). One of the challenging statements of the study is that 50% of

employees would need to replace their skill set by 2025 (Whiting, 2020). In this context, reskilling, upskilling and skill gap are the key concepts on this presentation and paper. The first step is to explore pedagogical views and experiences in training, teacher training and in-service training, with a particular focus on the concept and conceptualisation of learning and prior knowledge. Obviously, closely related to the above, the concept of learning will also change in the process. Lifelong learning, continuous skills and professional renewal and self-development will become more prominent. At the same time, the VUCA world and rapidly changing knowledge and skills are bringing life-wide learning to the fore.

The international, data-driven level (supra level)

Accordingly, the two countries' data are analysed in the context of the OECD PIACC and TALIS measures. The Programme for the International Assessment of Adult Competencies (PIAAC) is a programme of assessment and analysis of adult skills.[1] Hungary joined in 2016 and the data were collected in 2018. The performance of tertiary graduates in Hungary is outstanding, with the performance of graduates higher than the average performance of those with similar qualifications in OECD countries. It pays to study in Hungary: higher-level skills, especially good problem-solving skills, have a high return on investment. In terms of earnings on the labour market, a one standard deviation unit higher result is associated with an average 9.9% higher hourly wage, and higher education can be associated with 26.1% higher earnings. Good problem-solving skills are based on good reading comprehension and numeracy (Lannert-Holb, 2021)

Adults (aged 16-65) In Slovak Republic show above-average proficiency in literacy and numeracy compared with adults in the other countries participating in the survey. About one quarer of the adult population (16-65 year-olds) reports no prior experience with computers or lack very basic computer skills. In contrast, 25.7% of the adult population score at the highest levels in problem solving in technology-rich environments.[2]

The TALIS (Teaching and Learning International Survey) is the largest international questionnaire survey that asks teachers and school leaders about their teaching and learning conditions, their attitudes to teaching, their teaching practices and the characteristics of school leadership. According to TALIS-2018 data, on average 94.5 percent of teachers in OECD countries had received professional development in the year prior to

[1]   https://www.oecd.org/en/about/programmes/piaac.html
[2]   https://gpseducation.oecd.org/CountryProfile?primaryCountry=SVK&
       treshold=10&topic=AS

the survey. The international and Hungarian data clearly confirm that education systems place great emphasis on professional training and development (Balázsi - Vadász, 2019).

Slovakia also has results above the OECD average for continuing training. A remarkable statistic, 2% of teachers report participating in collaborative professional learning at least once a month (OECD average 21%) and 33% engage in team teaching with the same frequency (OECD average 28%).[1] The situation is similar in Hungary, 14% of teachers report participating in collaborative professional learning at least once a month (OECD average 21%) and 24% engage in team teaching with the same frequency (OECD average 28%).[2]

In terms of feedback culture, in the Slovak Republic, 3% of teachers report that they had never received feedback, in Hungary the same data (4%) in their schools (OECD average 10%). The forms of feedback most commonly used in the Slovak Republic and Hungary are based on observation of the teacher's classroom teaching, school-based and classroom-based results and external results of students the teacher teaches.[3]

The national, strategic level (mezo level)

At the national, strategic level, we are dealing with the Lifelong Learning Strategy, the Education and Training Act and the national standards. At the strategic level, the awareness of the importance, social and economic value of lifelong learning is a key factor for both countries. According to the Hungarian framework strategy, "lifelong learning is a constantly moving, dynamic approach to the development of education, which must necessarily be constantly renewed and adapted to changing social, economic, demographic and cultural conditions". (Az egész életen át tartó tanulás szakpolitikájának keretstratégiája…) In short, lifelong learning focuses on the development of a new learning culture and the dissemination of competence-based education. In Slovakia, only 4.5% of the adult population participate in lifelong learning, compared to an average of 11% in OECD countries. Improving the employability of the adult population and encouraging greater participation in adult learning is therefore of the utmost importance. At its meeting on 24 November 2021, the Government of the Slovak Republic approved the Lifelong Learning and Counselling

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[1]   https://gpseducation.oecd.org/CountryProfile?plotter=h5&primaryCountry= SVK&treshold=5&topic=TA

[2]   https://gpseducation.oecd.org/CountryProfile?plotter=h5&primaryCountry =HUN&treshold=5&topic=TA

[3]   https://gpseducation.oecd.org/CountryProfile?plotter=h5&primaryCountry= SVK&treshold=5&topic=TA ;
      https://gpseducation.oecd.org/CountryProfile?plotter=h5&primaryCountry= HUN&treshold=5&topic=TA

Strategy 2021-2030.[1] It is planned to increase the flexibility of the qualification system by creating smaller qualifications and so-called micro-qualifications (micro-certificates), and to support the introduction of short study programmes at universities and possibly also at vocational schools. This is also being pursued in Hungary.[2] In Slovakia, the Ministry of Education is preparing a new law on adult education. With the new bill, the Ministry of Education is fulfilling the government's commitment in its Programme Statement to create the conditions for a modern, practical and effective system of lifelong learning.[3]

Among the provisions of the Hungarian Adult Education Act, we can find that the adult education expert examines during the preliminary qualification of the training programme whether the competences specified in the training programme can be acquired with the content, conditions and in the manner specified in the training programme and for the target group concerned by the training.[4]

In the Hungarian National Core Curriculum (Nat) we can read the following: starting from the key competences recommended by the European Union, and building on them, but taking into account the specificities of Hungary, Nat defines the general competences that span the fields of learning, and those that are not exclusively linked to any field of learning, but are based on the acquired knowledge in varying degrees and composition, and develop in the learning-teaching process. Of these, the competences of learning, creativity, creative work, self-expression and cultural awareness are worthy of attention for our topic. [5] Although the document sets out learning outcomes in specific literacy areas, it is essentially more content-based and less competence-based in its approach. In Slovakia, there is no National Curriculum equivalent to the Hungarian National Curriculum, which is structurally equivalent. Each level of education has its own separate, detailed Education Programme. Currently, the Curriculum for Primary Education is being renewed in the framework of the curricular reform. In Slovakia, a new detailed Education Programme was prepared on 1 March 2023 with the involvement of a number of experts, which prioritises the development of competences. It will be tested in pilot schools to be introduced on 1 September 2026.

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[1]   https://eurydice.eacea.ec.europa.eu/national-education-systems/slovakia/lifelong-learning-strategy

[2]   https://siov.sk/en/strategia-celozivotneho-vzdelavania-a-poradenstva-na-roky-2021-2030-schvalena-vladou-sr/

[3]   https://www.minedu.sk/ministerstvo-skolstva-pripravilo-novy-zakon-o-vzdelavani-dospelych/

[4]   https://net.jogtar.hu/jogszabaly?docid=a2000011.kor

[5]   https://magyarkozlony.hu/dokumentumok/3288b6548a740b9c8daf918a399a0bed1985db0f/megtekintes

Local case studies (micro level)
Methodology of Visual Education

The main objective of the Visual Education Methodology course at the Faculty of Teacher Training of Selye János University (SJE TTK) is to build self-confidence, creativity, positive attitude towards community work and subject competence in future primary school teachers. As for pupils, the training of future teachers is also essential to develop not only a visual education but also a sensitivity to perception and expression, a reflective and creative attitude, and a range of methods that can be put into practice.It is a common experience that students who attend visual education courses do not have a background in visual arts, and their visual literacy is low. Typically, many of them last received art education - in our case visual education - in primary school (1 teaching hour per week). For correspondence students, this can mean a gap of up to 20 years in time. It is therefore particularly important to build on the knowledge and experience already acquired, so that the new content can be mastered and completed by everyone with appropriate effort. This requires an adaptive approach, which means a differentiated and coherent course management based on the tacit knowledge of the individual characteristics of the participants, which are important for learning. This is why students typically work together in pairs and small groups. We use a number of additional social interaction tools: digital visual notebooks, online editable mind maps, diagram editors, timelines (which facilitate the organisation of information and the visualisation of concepts or causal factors and their interrelationships) to facilitate discussions and brainstorming. We act primarily as facilitators in the learning process, supporting joint processing and the sorting and filtering of information. Throughout the course, emphasis will be placed on the relevance of visual culture and the interdisciplinary role of art. While creating, we will solve complex visual problems in a creative way. The creative process is a kind of physical and mental "recycling", which coincides with the environmental awareness expected today. Interactive methods and problem-solving exercises are used to achieve active, experiential learning. The course includes a number of project-based, cross-curricular activities that require students to engage in truly creative activities, such as: Timeline: drawing information on maps, creating visual tours, networks, mapping, and using images to visualise and analyse relationships. Visual diaries: they create visual diaries in analogue and digital formats to record the stories and events of their lives. It allows the visual capture and visualisation of the inner world (emotions, thoughts, desires). The method provides experience, self-awareness and value, as well as an excellent stress and tension relief. Role-playing: in addition to the experience of the life situation provided by the

role, the communal, flow experience and the joy of costume and prop making that comes with role-playing. Object-making design: a complex art project from the first steps of design to the exhibition of digital visual materials for the product. Other activities include: guided tours, transformational exercises, space formation, time capsule, problem-solving activities and projects. For assessment, we use a scoring system on Moodle (in addition to course-related presentations, written and visual materials), where you can choose the most appropriate assignments from a range of tasks to build your individual visual portfolio. In order to decide which topic or type of task is most inspiring for the student, he/she should in a good case unpack all the tasks, thus having an overview of the (very broad) segment of visual education in lower secondary education that we offer. The scoring system used in the visual portfolio is a way of checking the depth of learning. And we ask for ongoing, collaborative feedback on changes in their skills, both verbally and in writing. By documenting the different products that are produced, we can record tangible visual results.

Competency development through folklore

One of the most popular 50-hour (40 hours of training + 10 hours of individual research) in-service training for teachers from the Comenius Pedagogical Institute in Slovakia. The training is essentially competence-building (communication, collaboration, critical thinking, creativity) and practice-oriented with an activity-based approach. Emphasis is placed on the application of learning, continuous reflection and feedback, and the strengthening of professional debate and discussion. During the interviews, participants highlighted the practical nature of the training and the importance of individual research, development and presentation of innovative projects, continuous discussion of experiences, ideas and good practices. However, the rigid timetable of 50-hour contact hours (Fridays and Saturdays at the end of the school year) was raised as a problem. The need for more creative activities (pottery, crafts, folk games, dance) was also raised.

Social Studies I-II.

This course for the media- and communication correspondence students at the Budapest Metropolitan University, basically the courses are based on project- and problem-based learning. The students be able to evaluate the advantages and difficulties of project work. On the other hand, students be able to diagnose the social problems and be able to focus on them. The courses are starting sharing the aims and expectations and mapping students' prior knowledge (experience and beliefs) in order to transfrom tacit knowledge via brainstorming, question cards, place mat and mindmap. In order to strengthen motivation, we are organizing pilot projects on the chosen relevant, everyday-life topic. On the base of the experience and

evaluation of the pilot projects, we are turning to the Big Projects, making project plans with discussion and finalization. Later the project teams are making Progress Report. During their project work they get continuous feedback and support and we are discussing about the final evaluation criteria. The main character of evaluation of the course is balancing diagnosis, formative and summative assessment. Diagnosis of prior knowledge, interest and competency strengths. Concerning following the progression, evaluation focuses on continuous feedback and assessment of project plans, progression and presentations on the base of sharing criteria. Evaluation criteria: Content: relevance, coherency, consistency. Presentation: transparency, understanding, creativity. Finally the project teams are making the reflective diary and individual feedback window (Learning, Feelings, Questions, Knowledge Transfer).

Conclusions

In both countries, the priority is to strengthen lifelong learning and to develop adaptability to rapidly changing labour market needs. However, the systematic development of a pedagogical support system for this is still to be developed. What are the different elements of this support system? Systematic support for research, development and innovation, and the development and introduction of a process to encourage applications. A development-oriented analysis and peer review of international data and the continuous development of secondary regulatory tools (training programmes, online training and evaluation feedback materials) to support the national strategic level. Raising awareness of the importance of life-wide learning, while at the same time communicating strategy and priorities, and assessing the quality of the continuous improvement process. In both countries, the spread of more personalised and flexible forms of training and further training is welcome, but cooperation between participants and institutions should be strengthened to ensure effective mutual learning. In the medium term, networking and the development of regional networks of innovative and creative training and further training places and institutions should be considered.

Limitations:

The research is based on case studies, a comparative analysis of a few training courses, which allows to identify specificities and differences, but is not representative and therefore not very suitable for drawing systematic conclusions and trends.

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