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## **Development of Transversal Competences: A Current Challenge in Teacher Education\*\***

### **Summary**

This study responds to the growing demand to adapt the content and methods of teacher training programs to reflect the rapid emergence of new, nonpareil 21st century professions in the labour market, predominantly due to the information technology revolution. It is clear that future teachers will increasingly be expected to have a wider range of professional teaching skills, but also transversal skills and competences. For this purpose, a Slovak research team at Matej Bel University prepared an experiment by transforming a traditional foreign language CLIL course into a new course Global Encounters in Local Settings, aimed at developing not only pre-service teachers' multilingual and intercultural competences, but also a variety of other transversal skills and competences (critical thinking, intercultural competence, time management, teamwork, plurilingual and interpersonal communication skills and others). The innovative components in the new course are student-centredness, service learning and the collaboration between domestic and foreign students. GELS pilot teaching was launched in February 2020 and has been repeated during four following semesters (up to December 2021), despite severe pandemic constraints. The author presents some results from the verification of this pedagogical innovation in the teachers' university training curriculum. It has been tested by three quantitative-qualitative research methods: pre-term and post-term questionnaires, content analysis of students' seminar work, reflective individual diaries and group reports. Although the results from all of them are briefly stated, this focused on the results from the last mentioned analysis – diaries and group reports. The results of the data analysis show that this innovation has proved to be feasible and effective in achieving an increase in students' transversal skills, especially project management skills, interpersonal

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skills, communication skills, ICT skills, time and project management, tolerance and flexibility, critical and reflective thinking skills and open-mindedness.

**Keywords:** transferable competences, teaching, students, education, pre-service teachers, service learning

## Introduction

“The combination of teaching a rich body of knowledge and providing engaging opportunities to apply this knowledge is a challenge for teachers.” (Economou, 2016, p. 29)

At the beginning of the third decade of the 21st century, curriculum designers of tertiary pre-service teacher education are under growing pressure from the quantity of societal expectations about the qualities that should be acquired by their graduates during their studies. Various stakeholders, such as governments, students’ parents and employers demand more than just teaching skills and professional knowledge of their main subjects which used to be sufficient in the past. Changes in society, especially due to the boom in information technologies and the unprecedented extent of online workspace, but also due to various threats to the existence of life on Earth and, most recently, to the impact of the COVID-19 pandemic, have rapidly accelerated changes in the required professions in the labour market and the scope of information and competences that need to be taught to the latest Generation Alfa. Current pre-service teachers have to be able to prepare their students for professions, the majority of which will differ from the existing ones. According to The Future of Jobs report (World Economic Forum, 2016, p. 3), “in many industries and countries, the most in-demand occupations or specialties did not exist 10 or even five years ago, and the pace of change is set to accelerate”. “Students today are likely to have several careers in their lifetime. They must develop strong critical thinking and interpersonal communication skills in order to be successful in an increasingly fluid, interconnected, and complex world” (Terzieva et al., 2015, p. 25–26). Thus, to train future teachers means to transform their preparation by including the development of their global and transversal competences and skills, in order to train their students’ in 21st century skills and competences needed for their future jobs.

Accordingly to European Union documents, competences “comprise skills (as well as attitudes, knowledge, etc.)” (Ananiadou & Claro, 2009, p. 8), where knowledge includes data, facts, ideas, or theoretical concepts (linked to

a practical field or scientific discipline); skills (practical or cognitive) are the abilities to apply knowledge and use it in various contexts in order to achieve results; and attitudes are the disposition and mind-set to act on or react to ideas, persons or situations (European Commission, 2008; Council of the European Union, 2018).

In the European education space, competence-based education has been recommended for more than 20 years – starting with *the Bologna Declaration* (Adam, 2004; Davies, 2017; EHEA, 1999). The question is, to what extent have these recommendations been applied in European countries? The Berlin Conference of Ministers of Education in 2003 and the subsequent Bologna Ministerial Communiqués repeatedly comment on the ongoing need for competence-based education (Council of the European Union, 2004). In 2004, the Council of the EU reported a non-satisfactory state of competence development in Europe, saying that “nearly 20% of young people fail to acquire key competences” (Council of the European Union, 2004, p. 18). The emphasis is placed on the importance of not only specific professional knowledge, skills and competences but also on attaining “generic (sometimes called key transferable skills) relate[d] to any and all disciplines e.g. written, oral, problem-solving, information technology, and team working skills, etc.” (Adam, 2004, p. 5).

In the following years, the EC paid attention to this basic educational requirement in other substantial documents, such as *A New Skills Agenda for Europe* (Soldi et al., 2016) and the ESCO Strategic Framework: European Skills, Competences, Qualifications and Occupations – a multilingual classification system for European skills, competences, qualifications and occupations (ESCO Board, 2017). The research team involved in the project the Assessment of Transversal Skills 2020 – ATS2020 (Economou, 2016), co-founded by the European Union, provided a diachronic and synchronic overview of some existing transversal skill frameworks, bringing together evidence about a large number of research and theoretical models of skill development (Economou, 2016). Also, individual countries have been actively promoting and applying competence-based teacher education for several years now. For example, according to the website of Oulu University of Applied Sciences, their School of Professional Teacher Education has been preparing educational professionals who are able to use competency based work methods and digital technology and various learning and guiding environments (2021).

On the other hand, as Finnish authors commented in 2019 (Kepanen et al., 2019), “although there is plenty of research nationally and internationally

about the idea of competence-based education, the student perspective has remained in the shadows” (p. 1). In some countries, there is still a quite long way to go to achieve real reform of traditional knowledge-focused education and to incorporate ideas of lifelong learning into reality for education students and their teachers. This is the case in Slovakia, where the reform of teacher education towards the nourishment of the key competences did not take place until the end of the second decade of the 21st century (Porubský et al., 2014).

### **Transversal skills and competences – definitions, frameworks and assessment**

Probably the earliest term used for ‘general’ human – working and life – skills and competences is the term *soft skills*, which means “the required interpersonal and intra-personal skills necessary to be effective in the workplace” or “a set of intangible personal characteristics, traits, attributes, habits and attitudes that can be used in many different types of occupations” (UNESCO, 2013). As the term “soft” has several underestimating connotations that underestimate the significance of these skills it is no longer in line with the current situation and is therefore no longer appropriate (Kosová et al., 2019).

Similarly, the term *generic skills* was used to describe skills important for work, education and life in general, applicable in various occupations. They do not describe skills specific for one job, but cross-sectional skills important for work, education and life in general (Kosová et al., 2019). A synonym for generic skills and competences is the term *key competences*, needed for everyone’s personal fulfilment and development, employability, social inclusion, sustainable lifestyle, a successful life in peaceful societies, health-conscious life management and active citizenship. In 2006, the European Commission published a list of eight key competences for lifelong learning: communication in the mother tongue; communication in foreign languages; competences in maths, science and technology; digital competence; learning to learn; interpersonal, intercultural and social competences and civic competence; entrepreneurship; and cultural expression (European Parliament and the Council, 2006). In 2018, the Council of the EU gave a further description of the recommended *key competences*, underlining the “awareness of all learners and educational staff of the importance of the acquisition of key competences and their relation to society” – to learning to learn competence, life

management, STEM competences (in sciences, technology, engineering and mathematics), entrepreneurship, digital, linguistic, and citizenship competences (Council of the European Union, 2018). According to the Council, these key competences consist of various skills, such as problem solving and decision making, teamwork, critical thinking, risk assessment, constructive management of emotions, communication and negotiation skills, analytical skills, creativity and intercultural skills (Council of the European Union, 2018; Economou, 2016; ETSC, 2018). Both of these older terms (generic or key competences) relate to the application of the acquired education at work or in the professions, and therefore have strong political-economic contexts, such as employment development and economic growth.

Different experts prefer different variations of the names for skills and competences considered common to the whole human race, e.g. transferable skills, 21st century skills, global or transversal competences. Most of them are considered to be overlapping synonyms (Economou, 2016; Terzieva et al., 2015). The differences result from their emphasis on various typical features as we can see from their brief descriptions below.

Skills and competences that are acquired “through training or through work experience” in one context, e.g. in education, and that can be effectively used and further developed in another context e.g. in employment, or in business, are sometimes called *transferable skills* (Scholz et al., 2009). The emphasis is on their transferability in terms of the process of individual careers.

More current concepts, as used for example by the OECD, are *21st century skills and competences* and *global competences*. The former emphasises the needs of the emerging economic and social development in the 21st century (Ananiadou & Claro, 2009), and the latter emphasises competences required in various intercultural situations and in dealing with global issues, potentially affecting people anywhere in the world and influencing not only the current, but also the next generations (OECD, 2018). They include creativity or innovation, critical thinking, problem solving, decision making, communication, collaboration, information literacy, research and inquiry, media literacy, digital citizenship, ICT operations and concepts, flexibility and adaptability, initiative and self-direction, productivity, leadership and responsibility.

*Transversal skills and competences* emphasise cross-sectionality in terms of the content, not a specific task/role/discipline, but usability in various contexts. They may include an emphasis on humanity and the holistic development of the personality of learners (UNESCO, 2013), based on collaboration, self-discipline, resourcefulness, and respect for the environment. These are skills

that all types of education, work and careers have in common and can serve as a bridge between education and work, and between different careers and personal lives (Kosová et al., 2019; Scholz et al., 2009). It was the education component that led the author to the decision to use the term *transversal competences* in this article.

So far several overlapping categorisations and frameworks of various sets of transversal competences and skills have been produced. Economou (2016, pp. 31–32) characterises the following ones: enGauge 21st Century Skills (Lemke, 2002), The Definition and Selection of Competences: Theoretical and Conceptual Foundations (DeSeCo) (Rychen & Salganik, 2003), The Key Competences for Lifelong Learning – A European Framework (Council of the European Union 2006 & 2018), The Partnership for 21st Century Skills (P21) (2007), The ISTE Standards for Students (ISTE, 2007, 2016), Assessment and Teaching of 21st Century Skills (Binkley et al., 2012), the KSAVE Framework (Putro, 2017), The Technology and Engineering Literacy Framework (National Assessment Governing Board, 2014), and The Key Skills of Junior Cycle Framework (Department of Education and Skills, 2015). Most of them emphasise a similar set of competences as OECD/CERI (Fadel, 2008), which is the starting point for our analysis below.

In 2020, after the outbreak of the COVID-19 pandemic, the European Union reacted to the newly increased need for transversal work and life competences. In the document European Skills Agenda (July 2020), the EU proposed twelve actions in order for Europe to be able to recover from the losses due to the pandemic, among them the development of skills for life (“media literacy, civic competences, and financial, environmental and health literacy”) and transversal skills (“cooperation and critical thinking”) (European Commission, 2020).

In the context of education, it is necessary to pay attention to the assessment of the development of transversal skills (Terzieva et al., 2015). According to the VISKA project funded by the EU (ETSC, 2018, p. 9), the assessment should be holistic, consisting of (a) precisely defined learning outcomes and levels of their achievement; (b) validation of the learning outcomes of prior learning compared in context of specific jobs; (c) assessment of the achievement of learning outcomes using various assessment procedures and techniques “competence portfolio, self-assessment, dialogue with guidance professionals, peers (through group work) and assessment interviews (based on dialogue, examples and cases)”.

So far we described one of the current challenges in teacher education – the expansion of the expectations that teacher training will include the development of transversal competences of future teachers. As current developments in society and life on Earth show, acquiring these competences is the only responsible way to prepare the future citizens of our planet. The question is: How should teachers be prepared for these new requirements in the middle of an already crowded teacher training curriculum?

Teacher education is a specific field of education in which “new teaching and learning approaches are needed in order to address transversal competences, which demand a change of teachers’ role, from transmitters of knowledge to facilitators of learning” (Economou, 2016, p. 29). An internationally widespread model, built on previous models and experience in the development of transversal skills via teacher education, is the model of the Assessment of Transversal Skills – ATS2020 (Economou, 2016). It is a complex learning model which includes both the teacher’s role in the process of development of transversal skills (coaching, assessment) and the student’s involvement in their own learning. It consists of several procedural constituents, such as prior knowledge, setting of the goals, choosing appropriate tools and strategies, evidence and self-evaluation.

## Research context

Inspired by the challenge to develop global skills and competences of future teachers of the youngest Generation as mentioned in the above-mentioned framework and models, the team of teachers and researchers from Matej Bel University (MBU) in Slovakia decided to create and implement an innovation into an existing teacher education programme that would develop the transversal skills of their students – future teachers – without the need to increase the number of hours in the curriculum. The team transformed the existing, traditionally designed CLIL (content and language integrated learning) course for pre-service primary school teachers – into a newly-designed student-centred course called *Global Encounters in Local Settings* (GELS) – GELS because it places the development of future teachers’ professional as well as transversal skills into the natural context of cooperation with foreign students studying in various programs. GELS enables the development of future teachers’ professional skills as well as their transversal skills by changing the basic approach to teaching university students.

The GELS course design allows all individual students to develop autonomously in the above-mentioned areas by implementing a service-learning strategy which was established at the MBU almost 10 years ago (Brozmanová Gregorová et al., 2014). Its main idea is to create space for students to learn through serving a community as well as working with that community. At the beginning of each semester, the student groups have to analyse the needs of any community, which they agree on, and then create a meaningful project for – and with this community. They have to elaborate it – when possible – in consultation with the community. The project should at least partially meet the selected need. The condition of this project is that there should be community service parallel to the learning of students through this service. At the end of the project, significant emphasis is placed on individual and group reflection and self-reflection, dissemination of the project and its evaluation by external evaluators. Our thesis is that through these GELS joint projects domestic and foreign students might develop, not only their linguistic and intercultural skills, but quite naturally their transversal skills and competences also, e.g., critical thinking skills, active citizenship, intercultural and plurilingual competence, time management, leadership skills, interpersonal competences, and teamwork.

GELS pilot teaching launched in February 2020 and since then the course has been provided repeatedly during the four following semesters (up to December 2021), despite severe pandemic constraints. It was attended by domestic and foreign students (Erasmus exchanges, students studying in English-medium study programs, and also students registered through the eMERGE program). The research was accomplished thanks to funding by the Cultural and Educational Grant Agency at the Slovak Ministry of Education, Science, Research and Sport.

## Methodology and methods

The implementation of GELS as a pedagogic innovation, compared with a traditional teacher training curriculum, has been accompanied by quantitative and qualitative research since February 2020.

**The overall aim of our research** was to find out whether the newly designed GELS course in primary school teachers university curriculum would prove to be feasible and effective in achieving the key aims of CLIL



(professional and foreign language integrated learning) – such as increasing level of professional communication in foreign languages as well as of intercultural competence, but also the growth of students' transversal skills, e.g. project management skills, tolerance and flexibility, critical and reflective thinking skills, ability to negotiate, create and carry out projects, open-mindedness etc. To confirm this complex research thesis, it was necessary to confirm all three strands, and hence to use three research methods.

For reasons of objectivity, validity and reliability, the research used the following three methods: (1) analysis of students' work, (2) pre- and post-term questionnaires with open questions, and (3) reflective diaries were used with each GELS course in the four semesters (2020–2021). The first two methods were used to test the growth of language and intercultural skills and the third one, predominantly qualitative, the growth of transversal skills.

The predominant purpose of the **content analysis** of students' work was to verify if GELS as a pedagogic innovation results not only in newly formulated transversal competences, but if, at the same time, it fulfils the original purpose of this foreign language course – the development of students' plurilingual and intercultural competences. The basic requirement for continuing this GELS experiment was to maintain at least the same standard of improvement in the level of foreign language competence as used to be achieved in the previous CLIL courses. The researchers focused on foreign language communicative skills (reading professional texts with comprehension, writing notes and summaries from those texts, listening comprehension of videos and speaking skills via presentations and the ability to contribute and even lead discussion and whole seminars) of the students in the experimental groups and compared them with the other groups studying in typical English for Specific Purposes (ESP) / English for Academic Purposes (EAP) courses.

The **questionnaires** were created on the basis of intercultural dilemmas with the aim of diagnosing a possible increase in intercultural competence through GELS. Control groups were created to compare the added value of GELS against traditional language courses.

**Diaries by individuals**, as well as **group reports** from GELS groups, were used in order to document the growth of transversal competences from a different metacognitive, reflective and even emotional perspective. Both documents were a mandatory part of the GELS course. Students should have recorded in their diaries any reflections on their own learning in response to the question: What did I learn today? What else do I want to learn? In their group reports, students had to answer similar questions in pre-prepared group

worksheets. In their group reports and reflections, the students freely, without any influence from the researchers, were to describe in their own words what they considered as a benefit of the GELS course.

At the end of each GELS semester and after data collection via all three pre-planned methodological procedures, the data obtained were analysed, coded, categorised and evaluated. Most of the results of the quantitative analyses have already been published, others are currently being processed. In this article we present results from a qualitative analysis based on individual students' reflective diaries and group reports.

### Research sample

The overall research sample consisted of 120 MBU students enrolled in GELS, coming from various study programs and study fields. For the purpose of this study, we only chose the students in primary education teaching programmes. In the Slovak context, primary teachers are prepared to teach all subjects to 6–10 year old pupils (if they also choose the foreign language minor, they can get a licence to teach foreign languages). In the experiment with GELS – which has taken place in 4 semesters so far (winter and summer terms in 2020 and 2021), both experimental ( $N = 42$ ) and control ( $N = 42$ ) groups were included. That means that the overall number of students involved in the research was 84 (12 in the first term, 24 in the second term, 28 in the third term and 20 in the fourth term).

### Research findings

Although the results from the reflective diaries and group reports are going to be presented, to confirm our overall thesis it is necessary to present, at least briefly, the findings from the first two methods.

As regards the **questionnaires**, their data were transferred into descriptive tables showing the difference between pre-test and post-test level of transversal skills and competences of both the experimental and control groups. Due to the rather small groups of respondents and their selections, the results were processed only via descriptive statistics. If in the future there are bigger groups of applicants for this course, the inferential statistics will

be used. The results in each semester have shown a positive increase in the level of intercultural competence of the experimental group of GELS students. In comparison, the students in the controlled groups showed only a minimal increase in their intercultural competence.

Data from **analysing students' work** testing the fulfilment of the original aims of the foreign language course, were processed also only via descriptive statistics due to the specifics of each group included in the project (different entry level, small numbers of students and minimum possibility of objectively ensuring the selection of linguistically comparable groups). The results confirmed the fulfilment of the foreign language skills growth requirement of university foreign language courses. Compared to previous CLIL courses, the GELS students on average have shown a significant increase in their speaking skills, presentation skills and the ability to discuss in a foreign language. This success inspired several domestic students to apply for international mobility next semester. Comparable to control groups, GELS students have also developed their writing skills. In terms of reading and listening skills, it depended on the focus of the GELS project. However, due to the pandemic, GELS students in the field did not have as many project options as control students. A certain feeling of discomfort by the students with lower entry level of foreign language command has also emerged, especially in case of introverts. For them (approximately 5% of GELS students), the language skill requirements for GELS were so demanding that they would rather have opted for a traditional CLIL course.

The last of the methods, which focused predominantly on obtaining qualitative data, were **group reports and reflective student diaries**. The researchers compiled all the statements of the students into one document, then filtered the statements that either explicitly or implicitly mentioned transversal competences. Then, based on the students' statements, the researchers created categories of individual transversal skills. They analysed all the collected statements and coded them. Without any pre-set exact scales or pre-formulated instructions about assessment and evaluation conclusions, students in all GELS groups identified the improvement of several of their transversal skills and competences as the main added value of this teacher training innovation. Table 1 summarises the number of occurrences of a given transversal competence or skill (both explicit and implicit) showing the GELS students' feedback and evaluation from all four terms: summer term 2019/20, winter term 2020/21, summer term 2020/21, and winter term 2021/22. It

turned out that the GELS students valued the acquisition of transversal skills. They have seen improvements especially in their interpersonal skills (1/4 of statements), then organisational and managerial competences (1/5 of statements), but also personal qualities and skills, communication skills, ICT skills. They emphasised abilities to work in teams, collaborate, give/receive feedback or flexibility and adaptability.

Table 1. Explicit students' evaluation of GELS impact on their competence/skills/personality growth (own research by the author)

Number of GELS student using the following statements (out of total N): "GELS developed/enriched my..."	summer term 2019/20 (N = 6)	winter term 2020/21 (N = 12)	summer term 2020/21 (N = 14)	winter term 2021/22 (N = 10)
"overall global competences"	1	–	–	–
communication and plurilingual competences:	11.7%	12.7%	18%	17%
– participating in discussions	2	5	4	4
– negotiation	1	7	9	7
– focusing on a topic	–	1	–	–
– <b>better use of English</b>	3	10	8	6
– guessing meaning of words in other languages	–	5	4	3
<b>organisational and managerial competences:</b>	21.5%	26.2%	19.4%	19.5%
– setting the goals	–	8	5	5
– group management	3	7	4	4
– project management	3	9	8	5
– time management	3	10	8	7
– organising activities, events	2	2	2	2
<b>interpersonal competences:</b>	27.4%	28.4%	26.6%	28%
– identifying people's needs	1	4	5	4
– <b>teamwork</b>	3	7	7	6
– <b>collaboration/cooperation</b>	3	7	6	6
– ability to agree with others	2	2	4	3
– <b>giving &amp; receiving feedback</b>	3	9	6	5
– mediation skills	–	1	–	–
– serving others with one's skills	–	–	1	–
– group decision-making	–	4	3	4
– empathy, compassion, mindfulness	2	4	2	3
– overcoming each other's setbacks	–	–	1	–
– offering help /receiving help	–	1	2	2

research competences:	9.8%	0.7%	0.7%	
– creation of polling forms	3	–	–	–
– analytical thinking	–	1	1	–
– statistics	2	–	–	–
IT skills:	5.8%	3.5%	5.8%	9.3%
– graphs, charts, statistic pies	3	–	3	1
– creating/maintaining webs	–	5	5	–
– using smartphone apps	–	–	–	5
– creating smartphone apps	–	–	–	5
intercultural competence:	3.9%	6.4%	7.2%	6.8%
– understanding other culture	2	7	8	5
– tolerance	–	2	2	3
personality qualities:	15.6%	14.2%	15.1%	13.6%
– <b>flexibility, adaptability</b>	<b>3</b>	<b>7</b>	<b>8</b>	<b>4</b>
– creativity	3	–	2	2
– patience	1	–	–	–
– professional responsibility	–	2	1	1
– adaptability (to changes, limits)	–	3	2	4
– opinion-making, open mind,	1	7	6	5
assertive	–	1	2	–
– maximalising personal skills				
cognitive skills:	1.9%	7.8%	7.2%	5.9%
– content knowledge (culture, biology, sports, informatics)	–	3	3	2
– critical and reflective thinking	1	8	7	5
Total number of statements in each semester group (percentage):	51 (100%)	141 (100%)	139 (100%)	118 (100%)

The added value of GELS is evident also from the comparison of GELS diaries with the optional diaries of non-GELS students in the control groups. The evaluation statements of the students from the control groups were much less extensive. In addition to the developed communicative competence in English, they only mentioned the development of content knowledge, technological, teamwork and giving feedback competences.

At the end of this section, we present the actual statements by students. We do so with a dual methodological purpose: (1) for research documentation purposes – to allow the reader to imagine the original form of the students' statements as a source for subsequent content analysis, but also (2) conveying an authentic experience of enthusiasm from GELS and the possibility of self-motivation for this pedagogical innovation.

The individual evaluation statements by the GELS student groups also testify to the positive results of this innovation:

GELS students during the 1st semester – spring 2020 (1st wave of the pandemic in Slovakia):

Ultimately, the service-learning concept was a success since, instead of merely providing theoretical knowledge on a subject, we were afforded an opportunity to conceptualise and implement a project which not only enriched our professional competences but, hopefully, could also add value to the student community. (GELS 1, 1)

Our team showed definitive improvement in all of the key competences, they grew naturally in proportion to growth in communicative skill and multicultural skill. As shyness and confusion began to dissipate, and we became more open to collaboration, our results gradually began to improve, as did our work speed and overall productivity. It also promoted the less sociable or open of us to become more opinionated and to become decision-makers, which will be rather valuable for our individual futures. (GELS 1, 2)

We learned how to maximise our personal skills and pass them unto others, so that they might be useful to our common goal. We spoke freely and made more concise decisions as time went on, and more effectively figured out how to tackle the problem at hand. Our own previously owned skills received ample ground for improvement, and we made the best of them, from powerful mediation to a subtle knowledge of something as hidden as colour theory and how it might make our project more appealing. (GELS 1, 3)

We also grew more mindful of each other's personal setbacks and difficulties, and how to overcome them, making us more compassionate and mindful towards people overall. We did not let the palpable language barrier hinder our goals, though it did take moulding and accommodating to reach a level comfortable overall, but we believed it was reached fairly and kindly. (GELS 1, 4)

We were taught patience, resilience, mindfulness and experienced the wonders of multiculturalism in a new light, and skills like those could not be more valuable in the globalised world of today. (GELS 1, 5)

We have learnt how to set goals, how to speak our mind, feelings, and ideas freely. We have learnt how to offer and receive offered help, which is not easy sometimes. In the beginning, just a few members of the group were involved in the discussion but at the end of the activity, almost every member was involved and participated during discussions and decision making. In the beginning, it was very hard to arrange a meeting for all members of the team. We were too busy with classes or various duties. Our flexibility improved as the semester ended. We were able to adapt and meet at any time. As the previous table shows, we have learnt a lot. We have gained a lot of experiences, knowledge, and improved lots of skills. For example, we developed some multicultural skills and improved our

communication skills, especially communication in the English language. We have learnt how to express our ideas assertively. (GELS 1, 6)

GELS students during the 2nd semester – autumn 2020 (2nd wave of the pandemic in Slovakia):

What have we learned from project? The concept of 'perspective'. That is the word that defines what we learned when creating this academic project. The place you are born in the world, makes you look at it from a different angle, with different eyes, and that is why connecting with other cultures can be so important and fulfilling. This idea came to our minds even more when we analysed the news that we were working on from each country, and that is something that we can take with us as a positive point. We cannot forget the translation itself; it was a skill that we developed a lot during this project, and it can be an amazing tool for the future. And, in the end, working with a motivated team was an amazing experience and we could all learn and help each other while making our LocalNewsGlobally project possible. We were surprised we were able to manage the whole project on our own. (GELS 2, 6)

But more than just informatics skills, we also developed our capacity to lead a project totally by our own and forced us to make decisions. It also shows us that the organisation in a team is building up naturally, without speaking of it, one or two people will take the lead of the group and will take more decision or more initiatives in order to help the others. Moreover, the way of communication was totally new as only distance communication was possible without any real meeting. It forced us to adapt to this situation and change all the way of working we were used to. To summarise, this project gave us knowledge in informatics, in communication and team building but also improved our capacity of adaptation to unknown situations and also improved our maturity. (GELS 2, 9)

Apart from discussing a lot, we learned multiple unexpected things about our group members. The subtle nuances of different cultural heritages and the alignment for this shared work brought us further as humans, not just students. Sure, our idea of cultural integration might sound idealistic at times, but just by sharing this idea with others we might already bring slight change, hopefully for the better. (GELS 2, 11)

GELS students during the 3rd semester – spring 2021 (2nd wave of the pandemic in Slovakia):

For us personally, this multicultural group work was a pleasing experience to widen our knowledge about similarities and difference for our countries. We implemented every skill each of our group members have and had lots of fun creating such a project with each other. (GELS 3, 8)

## Discussion

Due to the COVID-19 pandemic restrictions and lockdowns, GELS courses could not be implemented in the planned face-to-face regime. Its students had to respond flexibly to the limitations of online planning and elaboration of their GELS projects, as well as their presentation and evaluation. They focused their projects on the communities they were in contact with during the pandemic: the needs of the community of foreign citizens in their town or village, the community of foreign students at the university, the community of foreign migrants, the needs of children and families from socially disadvantaged backgrounds, as well as on typical pandemics and the post-pandemic needs of the mentally unstable, and on families without continuous access to the internet and thus to online education during the lockdowns.

In spite of this very limiting factor – as we are talking about working with a certain community and not just about students learning in their typical classroom – the results of this innovation are encouraging.

At the beginning of our study, we presented several definitions and models for the development of key/global/transversal competences. Organisations such as the EU, UNESCO and OECD have been dealing with this issue for a long time and have published a number of studies. National education systems have declared the acceptance of those competences into their curricula.

The question is, however, what really happens in schools and teacher training institutions? This is also illustrated by OECD research in 17 countries (Ananiadou & Claro, 2009). Most responding countries agreed on the need to develop 21st century skills in teacher training. But the extent to which they carry out this kind of teacher training varies considerably. “It is, however, not clear to what extent these training programmes place particular emphasis on the teaching and assessment of 21st century skills” (Ananiadou & Claro, 2009, p. 8). Some focus on developing only some of the skills. Others offer optional courses or even specific new programmes teaching these skills (especially in countries where a thorough educational reform took place).

UNESCO in 2015 found out that while, on the one hand, teachers are gradually adapting to new expectations and increasingly trying to invest effort into the development of their students’ transversal skills and competences, their “confidence and motivation is influenced by an over-emphasis in the school



culture on good examination results in traditional academic subjects, and by teachers being overwhelmed by work demands” (Economou, 2016, p. 29).

We compared the results of students’ statements about the developed competences and skills with the frameworks mentioned in the introduction of this article. Compared to the framework of competences recommended by OECD (Fadel, 2008) and eight key competences and related skills recommended by the EU (2018), the students mentioned all except the entrepreneurship competence and the risk assessment skills (which was confirmed by the observing GELS teacher trainer). Amongst the OECD’s 21st century skills and competences framework (2018), all but productivity were explicitly mentioned by GELS graduates. However, throughout the whole semester, students were producing projects to meet the needs of the community, so it can be said that from the point of view of the course observer, this competence was also developed.

The results of our qualitative analysis show the real impact of the implemented service-learning innovation on the process of acquiring transversal competences. The added value of the implementation of a service-learning project in education has already been proven through multiple research projects in various educational institutions around the world, e.g. as pointed out by Eyler et al. (2001). In their overview of studies about the positive impact of service-learning on personal, social and educational outcomes, as well as on career development and relationships with domestic institutions, they also mention the development of transversal skills and competences: (a) personal development (awareness of self-efficacy, personal identity, moral development) and development of interpersonal skills (to cooperate, lead, communicate despite differences and a belief in the importance of diversity); (b) development of the social dimension (social skills, elimination of stereotypes, facilitation of cultural understanding, development of social responsibility and civic skills, willingness to decide to help the community and involvement in the community); and cognitive but also affective growth (ability to apply the acquired knowledge in practice, critical thinking, ability to solve problems, and others (positive impact on preparation for the profession after graduation). The positive impact of service-learning in university courses on developing critical thinking skills was also mentioned by other research teams (Burbach, Matkin, & Fritz, 2004).

## Conclusions

The aim of this paper was to show one of the possible ways how to convincingly incorporate the development of not only professional and foreign language skills and competences but also transversal competences into teacher education without increasing demand for human or financial resources.

The analysis of the differences between pre-term and post-term questionnaires, the analysis of students' foreign language outputs, and of students' diaries and group reports brought evidence that a service learning course focused on both the individual student's need and the community need, taught in a foreign language thanks to collaboration between domestic and foreign students, is a feasible and effective pedagogical innovation in the pre-service teachers curriculum.

In spite of the pandemic and other limitations – that this was a qualitative examination of rather small, deliberately selected samples and thus this research does not claim to be generalised – we believe that GELS as the pedagogical innovation was verified, to the extent that qualitative research allows, via students' reflections. Although it needs continuing development and further research, the results so far demonstrate that it is possible to move forward the efforts for real development in pre-service teachers' transversal skills and competences.

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