The background of the cover is a dark, almost black, space filled with numerous translucent, blue, geometric shapes. These shapes, which resemble prisms and polyhedrons, are scattered and layered, creating a sense of depth and complexity. Some shapes are sharp and prominent, while others are faint and overlapping. The overall effect is a dynamic, crystalline structure. On the left side, there is a solid, vertical blue bar that runs the full height of the cover.

**Addressing the challenges
of teaching foreign languages
in higher education**

Edited by Silvia Pokrivčáková

Addressing the challenges of teaching foreign languages in higher education

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Introduction

Foreign language education at the university level is a dynamic and constantly evolving field. In addition to long-standing challenges, the post-Covid era has brought new complexities, driven by significant changes in social and economic spheres, technological advancements (e.g., the rise of generative AI), shifts in the job market (with a growing demand for new skills), and the turbulence of international politics (such as ongoing conflicts and wars).

This monograph, consisting of six original research studies, explores several of the current challenges faced by those involved in English as a Foreign Language (EFL) education at Slovak universities. These challenges encompass diverse areas such as teaching English for Specific Purposes (ESP), teaching Latin for Specific Purposes (LSP), integrating digital media into foreign language education, and activating students through alternative forms of assessment (such as peer assessments).

The first study, **Attitudes of pre-service teachers of English toward pronunciation training** by Hana Vančová, examines pre-service teachers of English as a distinct group of learners who may demonstrate heightened motivation and positive attitudes toward mastering English pronunciation, despite the prevailing emphasis on comprehensibility and intelligibility. Learner attitudes are multifaceted, encompassing cognitive, affective, conative, and self-efficacy components. To assess these factors, Vančová adapted the Learner Attitudes and Motivation for Pronunciation (LAMP) inventory (Sardegna, Lee, & Kusey, 2014), which evaluates the degree of importance placed on these factors. The study surveyed 70 pre-service teachers and found that, while participants exhibited a high level of self-efficacy, their behaviour did not always align with their awareness of the importance of pronunciation training.

The second study, **Teaching pronunciation of medical terms among Slovak students of general medicine and dentistry** by Tomáš Hamar, investigates the effectiveness of using the International Phonetic Alphabet (IPA) to enhance the English pronunciation of dental students. Conducted using action research methodology, the study included questionnaires with both open and closed questions, as well as audio recordings to identify pronunciation errors. The study found that the most common errors involved word stress and sounds absent in Slovak, along with difficulties in pronouncing specialized terms of Latin and Greek origin. The use of IPA helped students overcome these challenges, emphasizing the value of phonetic transcription in improving pronunciation within specialized contexts.

The third study, **Soft-skills training within English for Specific Purposes courses** by Denisa Šulovská, highlights the growing importance of soft skills for the employability of university graduates. Despite this, soft skills training is often underrepresented in university curricula. This study examines how ESP courses can be leveraged to foster soft skills, offering examples of activities that have been successfully integrated into courses at the Faculty of Arts, Comenius University. The study demonstrates that in addition to improving employability, soft skills training also contributes to a more collaborative and supportive classroom environment, ultimately enhancing teaching effectiveness.

In the next chapter, **Innovative methods in teaching Latin medical terminology**, Lucia Lauková, Linda Vasiľová, and Tomáš Hamar present a new academic textbook tailored for medical students studying Latin medical terminology at Comenius University's Faculty of Medicine. Traditional Latin textbooks, often written with philological students in mind, have been shown to confuse and frustrate medical students due to their irrelevant content. This innovative textbook, tested over two semesters with 90 students, is designed to meet the specific needs of medical students, aligning with their way of thinking and addressing the challenges they will face as future doctors. The results of this pilot project are presented as a contribution to more effective teaching methods in medical education.

In his study on **EFL teachers' attitudes toward authentic language materials – digital video movies**, Radoslav Ďurajka explores the use of authentic materials, particularly video materials, in English language teaching. With the growing role of digital technology in education, authentic materials have become an integral part of language instruction. However, the use of such materials is not without its challenges. This study presents the findings of a survey conducted among Slovak EFL teachers, investigating their attitudes and beliefs regarding the use of authentic materials. The study discusses the benefits of video materials in enhancing language skills and suggests practical techniques for incorporating these materials into language lessons. The results of the survey indicate that while many teachers are aware of the value of authentic materials, their usage remains inconsistent, and the study provides recommendations for future research and practical applications.

Finally, the monograph addresses the shift in teacher education towards more participatory and collaborative methods. The final chapter **Integrating computer-assisted peer assessment into EFL teacher training**, by Silvia Pokrivčáková, discusses the application of peer assessment in teacher training, a technique that has been shown to engage students more deeply in the learning process, increase motivation, and develop critical skills necessary for future teaching practice. Through peer assessment, students not only provide feedback to their peers but also demonstrate their knowledge, social empathy, and communication skills. Pokrivčáková presents the results of a comparative study examining the correlation between teacher-led evaluation and 550 summative assessments provided by TEFL MA students in the 2023/24 academic year.

The study found a strong correlation ($r = 0.8439$) between the teacher's and students' assessment scores, confirming the value of incorporating peer assessment into teacher training courses as part of the final evaluation.

The authors of this monograph who are lecturers and researchers working for two Slovak universities hope that this publication will offer valuable insights into the current challenges and innovations in foreign language education at the university level. They also hope it will serve as a source of inspiration for further research in this evolving field. Their sincere thanks go to Prof. Zuzana Straková, PhD. (University of Prešov) and doc. PaedDr. Rastislav Metruk, PhD. (University of Žilina) for their detailed readings, critical feedback, and constructive reviews, which have helped refine the author's thinking and improve this publication.

Editor

Attitudes of pre-service teachers of English toward pronunciation training

Hana Vančová

Introduction

The role of pronunciation in communication shifted when written communication lost its priority. The communicative value of pronunciation has been widely acknowledged across various contexts (Hişmanoğlu, 2006; Pardede, 2017; Wagner & Toth, 2017). However, the views and attitudes of foreign or second language learners towards pronunciation are diverse. The main concerns include the role of native accents as pronunciation models, the identity of the learner in a foreign language, or the most effective strategies for presenting it to learners. The teachers must be prepared to face these challenges, but they often lack the training, resources or confidence to teach them (Burri et al., 2017; Couper, 2017; Khoirida, 2020). Pre-service teachers are of particular research interest, as their training can be tailored to their needs and attitudes. Vančová (2020) explored the pre-service teachers' attitudes to the pronunciation component of their studies. The study revealed predominantly positive attitudes of learners despite little previous experience with its previous practice, as well as the desire to achieve 'native-like pronunciation', which refers to pronunciation that is similar to that of a native speaker, to sound more professional, proficient and to respect cultural specifics of English-speaking countries. The study also delved into the research into pronunciation practice strategies with students displaying nuanced attitudes towards, e.g. between feedback provided by a teacher and a fellow student. Similar results regarding the preference of native-like pronunciation in the classroom context confirm the findings of Aksakalli and Yagiz (2020) and Coskun (2011). Numerous studies have investigated learners' attitudes towards training foreign language pronunciation and its training (Burri et al., 2017; Cortés, 2016; Khoirida, 2020; Vančová, 2020). Learners generally express positive attitudes and recognize their importance in communication with other speakers.

Furthermore, learner attitudes can be stimulated not only by applying the correct strategies (Akeem & Rasak, 2019; Szyszka, 2015; Tominaga, 2015; Véliz, 2012) but also by recognizing its communicative value, appreciating native-like qualities and recognizing its importance (Zhou, 2019). Teachers have been trained in limited activities to teach them (Thomson, 2012a). Therefore, a significant part of the work lies on the learners.

Research interest in English pronunciation training has increased since the onset of the 21st century (Thomson & Derwing, 2014) equally in English as a foreign language (EFL) as well as English as a second language (ESL) contexts as the importance of English as a communication tool in all aspects of human life has grown (Levis, 2005). The non-native English speakers outnumber the English native speakers (American TESOL Institute, 2024). Foreign and second language learners equally face the challenge of achieving universally comprehensible or intelligible pronunciation due to their objective or perceived limitations. The most researched factors include learners' age and language background (e.g. Flege et al., 2006; Gatbonton et al., 2011; Munro & Derwing, 1995; Piske et al., 2001; Scovel, 2000). Comprehensible pronunciation in ESL and EFL contexts equally is multifaceted and is based on a range of complex linguistic interactions (Isaacs & Trofimovich, 2012; Nagle & Huensch, 2020), which can be characterized on the speaker's part as "speaker factors" (Chan, 2021, p. 5). On the acoustic level, they include segmental and suprasegmental accuracy, as well as overall fluency and other personal pronunciation characteristics.

Good pronunciation boosts learner confidence, self-perceived competence and willingness to speak (Almusharraf, 2022; Szyszka, 2011; Tlazalo Tejada and Basurto Santos (2014) as well as enhancing social and professional opportunities (Gatbonton et al., 2005; Derwing & Munro, 2009; Zielinski, 2012).

Pronunciation training and learner attitude components

One of the most important factors helping to overcome pronunciation training limitations presents learners' attitudes towards the phenomenon (Smit, 2002; Smit & Dalton, 2002). Learner attitude towards pronunciation and its improvement via systematic training can be studied from various perspectives (for reference on attitude and attitude theory, see Greenwald, 1968). Typically, attitudes involve affective, cognitive and behavioural aspects (Breckler, 1984; Ostrom, 1969; Svenningsson et al., 2022). The attitude of learners towards the subject or a topic impacts their achievement in learning and has also been observed and scientifically explored in pronunciation training.

In terms of the affective component of pronunciation, it is crucial to understand that primarily negative emotions such as anxiety have a significant impact on the learning process. Non-native speakers of English believe that accented speech hinders communication, which negatively impacts their motivation and consequently their learning outcomes. Kralova et al. (2017) characterize anxiety as a psychological construct rooted in the perception of "self". Based on an extensive literature review, the authors identified the affective, cognitive and behavioural steps of overcoming anxiety. The affective interventions are based on a set of psychological exercises, the cognitive intervention is predominantly characterized by a set of educational strategies and the behavioural interventions are based on the actual pronunciation practice with traditional techniques or using modern digital technologies. Kimura (2021) links anxiety to self-

presentation and is related to the sense of belonging, awareness of which may lead to anxiety when speaking in a foreign language.

In the classroom context, pronunciation anxiety is negatively linked to attempts to achieve native-like pronunciation and can be specific to more proficient learners of English, such as English major students in comparison to other non-native English speakers (Baran-Łucarz, 2017), or those who have received an intensive English language education (Erdel, 2023). More specifically, foreign learners' main concerns include ridicule, shame, unease or mistakes while pronouncing English words (Gómez Lacabex & Roothoof, 2023). However, the research has shown that the smaller size of the group as well as task type or psycho-social training, which plays a crucial role in addressing the emotional and social aspects of learning, can help overcome anxiety in the classroom context (Baran-Łucarz, 2014; Feigenbaum, 2007; Kralova et al., 2017). Furthermore, technological inventions such as ASR-based tools (McCrocklin, 2016) or video feedback (Martin et al., 2022) can help learners overcome this negative affective component of attitude towards pronunciation training.

The other two attitude components, the cognitive and conative and the superiority over each other, are some of the most researched areas of pronunciation training. In practical terms, research has focused on the effect of teacher instruction (cognition) and the actual pronunciation training (conation, behaviour) and their impact on learner performance. While both appear to be appreciated and proven efficient, it is impossible to separate one from the other and prioritise any of them in isolation. Based on their research, Kissling (2013) suggests that the actual pronunciation practice in Spanish foreign learners may be more significant in improvement than explicit instruction.

The cognitive component of learners' attitudes lies in the sphere of knowledge about the pronunciation system and its importance in communication. To a large extent, teachers bring knowledge to class; however, the teachers report a lack of knowledge in this sphere (Burri et al., 2017; Couper, 2017; Khoirida, 2020). However, Burri (2015) states that awareness of the different aspects of pronunciation may lead to shifting pronunciation training focus from one to another. More specifically, while learners start with training segmental features, with increasing knowledge, they also give equal importance to suprasegmentals. Burgess and Spencer (2000) maintain that phonological awareness can lead to improved pronunciation. Raised phonological awareness is particularly beneficial for pre-service English teachers, foreign learners, and learners who prefer a theoretical introduction to new knowledge. However, according to the authors, the majority of learners will be sufficiently trained in how to make a phoneme and the ability to read symbols of the phonetic alphabet. However, Couper (2011) and He (2011) maintain that formulating metalanguage on pronunciation in a social context and expanding the learner's knowledge of metacognition can also bring benefits in practical pronunciation.

In terms of conation, to a large extent, it is based on the choice of teachers' techniques and strategies they employ in the classroom context. This research area appears to be the most researched, as research focuses on the training of different age groups (Flege et al., 2006), the length and consistency of the training to increase accuracy and fluency (Atli & Bergill, 2012; Levis, 2005; Saito, 2012; Thomson, 2012b), using language learning techniques and strategies (Szyszka, 2015; Véliz, 2012) or contextualising the knowledge through reflection. Suwartono and Rafli (2014) propose the reflective learning method rooted in experience, understanding and relation of the new information to what is already known as a means towards improved pronunciation.

The classroom-based activities have shifted to ubiquitous learning, where informal practice through language use in direct communication and learning has been explored. For instance, learners who visit foreign countries and are active in training have a more positive and confident approach to pronunciation (Almusharraf, 2022). In addition, technology plays a significant part in this sphere. Recently, pronunciation training has shifted towards using digital tools. The most frequently used are tools based on automatic speech recognition (ASR; see review articles by e.g. García et al., 2020; McCrocklin, 2016; Ngo et al., 2024; Yaniafari & Olivia, 2022). The most recent direction leads to using artificial intelligence and AI-powered tools (Vančová, 2023) and other digital tools leading to learner autonomy (Vančová, 2021).

Atli and Bergill (2012), however, maintain that it may only be possible to acquire a good pronunciation with awareness of the peculiarities of the target language. Similarly, Tlazalo Tejada and Basurto Santos (2014) maintain that there is an inseparable link between teacher instruction and intensive student training. Therefore, it may be assumed that this sphere of research will generate higher interest in the future.

The traditional three-dimensional attitude component structure (affective, conative, cognitive) was complemented for self-efficacy by Sardegna, Lee and Kusey (2014), who investigated learner attitudes and motivation towards pronunciation practice. For this purpose, the authors created a Learner Attitudes and Motivation for Pronunciation (LAMP) inventory, which consists of two parts investigating both aspects of this complex process. The authors recognised diverse types of motivation – integrative, intrinsic (further analysed for curiosity, involvement, challenge) and extrinsic (further analysed for compliance and grades/instrumental). The attitudes can be investigated from the perspective of four components – cognitive attitudes, affective (primarily negative affects), conative attitudes and self-efficacy. The authors implemented the instrument in 704 adolescent Korean English learners. The results revealed that the learners' negative attitudes impacted respondents' engagement in pronunciation practice and limited the value of knowledge and perceptions of pronunciation practice.

The concept of perceived self-efficacy added to the LAMP inventory by Sardegna et al. (2014) was characterised by Bandura (2005, p. 307) as "people's beliefs in their capabilities to produce given attainments". Generally, people have an overall sense of

efficacy, but in practical terms, these beliefs may manifest differently across various spheres of life (i.e., in professional and private spheres). Based on Bandura's theories, Shehzad et al. (2019) investigated the interplay between pronunciation self-efficacy sources and Malaysian English Major students. The sources were identified by Bandura (in Shehzad et al., 2019) as follows: (1) mastery experience (primarily individual's previous successes in completing a task), (2) vicarious experience (observing others completing a task increasing individual's efficacy), (3) verbal persuasion (predominantly positive encouragement from individual's significant people) and (4) physiological state (factors impacting physical and mental well-being of an individual, i.e. stress, anxiety, heartbeat, fatigue). The study confirmed a significant correlation between all components. However, only the physiological state displayed a negative correlation. In addition, previous negative experiences studied under the category of mastery experience may lead to lesser overall self-efficacy. In Saudi learners, Shehzad et al. (2022) explored self-efficacy, pronunciation performance and two dimensions of grit (i.e. perseverance of effort and consistency of interest). The results indicated a strong relationship between the phenomena, which teachers' intentional pedagogical efforts could further enhance.

Yang (2017) identified the importance of mastery experience in Chinese pre-service teachers of English, followed by vicarious experience. However, the remaining two sources have a lower impact on learners' performance, possibly due to the participants' cultural and environmental circumstances. Negative emotions, in particular, may directly affect speakers' performance.

The LAMP inventory (Sardegna et al., 2014) was later revisited as an instrument by Tabandeh and Parvaneh (2020), who implemented the tool on 364 Iranian English Majors. The results indicate that the participants expressed overall more positive attitudes in pronunciation training across all components while recognising the impact of the affective component, which limited their pronunciation progress.

Sardegna, Lee and Kusey (2018) later studied the relationship between learners' self-efficacy, beliefs and attitudes concerning selecting pronunciation learning strategies. Korean EFL adolescents participating in the study with high levels of self-efficacy reported a higher level of commitment to pronunciation training and little impact of negative effect on their confidence. In addition, participants with a high level of conversation showed a higher level of willingness to take action in selecting the right strategies for pronunciation training. Finally, the results imply the vital role of teachers in promoting learners' self-efficacy, creating opportunities for pronunciation training tailored to learners' needs. On the other hand, learners with a high awareness of the importance of pronunciation may experience higher levels of negative effects (panic, anxiety), which may impact their overall fluency. However, this did not impact their willingness to improve and seek opportunities ("facilitative and debilitating anxiety", Sardegna et al., 2018, p. 105).

The literature review suggests that exploring learners' attitudes towards pronunciation training is a complex process involving a range of factors worth investigating.

Therefore, the presented survey aims to explore the following questions:

1. *What are the pre-service teachers' English attitudes towards pronunciation practice?*
2. *Which attitudinal components have the most significant impact on the process?*

Method

The study presents the results of a questionnaire survey conducted in December 2021. The questionnaire was presented to a convenient sample of participants via email invitation, and it was accessible online. The participation of students was entirely voluntary and anonymous.

Participants

Participants were pre-service teachers of English as a foreign language (n=70) attending the English phonetics and phonology course, a compulsory course in the single and double major English language teaching study programme. In total, 119 students participated in the questionnaire (49 participants did not complete the questionnaire). Half of the participants were first-year students (n = 35); the remaining were second and third-year students (n = 26 and 9 respectively). Only seven participants were trained in pronunciation in upper secondary education, and only six were trained in lower and upper secondary education. The largest group of participants (n = 30) trained in pronunciation unsystematically, and sixteen participants were never trained in pronunciation. The remaining participants were trained in pronunciation in a language school or another way (no answers given).

None of the participants declared English to be their mother tongue (foreign language - n = 51, second language - n = 19). Thirty-six participants had never visited an English-speaking country, and the second-largest group (n = 24) spent less than six months in an English-speaking country.

Instrument

The research was conducted using the LAMP inventory questionnaire developed by Sardegna, Lee and Kusey (2014).

The original questionnaire consists of 25 Likert-scale items investigating learners' motivation to improve pronunciation and 18 Likert-scale items focusing on learners' attitudes to pronunciation training and self-efficacy. For this study, only the items dealing with learners' attitudes were selected from the list. All items are numbered, following the original order of the questionnaire items.

The questionnaire was presented to the students during the semester while attending the phonology course. The questionnaire items were translated into Slovak and adapted

to the specific conditions of the participants (pre-service teachers of English) while adhering to the general idea of the statement. The students were invited to participate in the survey via email, and they were assured of the voluntariness of their participation and the anonymity of their responses.

The questionnaire authors grouped the questionnaire items according to the role of the following components inherently observed in pronunciation training:

- Affective component
- Cognitive component
- Conative component
- Self-efficacy

A portion of the items explicitly related to the classroom context, while other items were formulated for informal learning contexts.

Results

The following section presents the results of individual statements originally formulated by Sardegna et al. (2014) and reformulated by the researcher for clarity. The statements were presented to participants in the original order, and their numbers are listed next to each statement. However, for clarity, the statements are presented in groups according to the components designed by the instrument authors. The participants evaluated all statements using a 5-point Likert scale (1 = strongly agree, 2 agree, 3 = neutral, 4 = disagree, 5 = strongly disagree). The collected data were analysed for descriptive statistics, i.e. mean, standard deviation, median and mode. In addition, Cronbach’s Alpha was calculated to measure the consistency of individual group factors. Due to the sample size, additional statistical tests used by Sardegna et al. (2014) or Tabandeh and Parvaneh (2020) could not have been calculated for comparative purposes. The results are presented according to the individual components of the questionnaire as defined by the LAMP inventory.

Tab. 1 Affective component questionnaire items

	MEAN	SD	MEDIAN	MODE
27 I start to panic when I have to read aloud or speak in front of others without having rehearsed before.	2.74	2.45	3,4	5
30 Focusing on my pronunciation when I speak is distracting.	3.06	2.74	3	2
31 It is a pain to correct my pronunciation in English.	1.46	1.07	1	1
35 I worry about making pronunciation mistakes in a language class.	2.67	2.54	2	1,2
43 I get nervous when someone corrects my pronunciation mistakes.	3.47	3.23	4	4

The affective component of the instrument examines learners' emotional engagement in pronunciation training within the classroom and other environments. The level of reliability was above the acceptable level ($\alpha = 0,662806$). The selected items primarily focus on negative emotional states, such as feelings of panic, worry, and nervousness. According to participants' responses, their emotional response to potential errors was generally neutral, with an average score of around 3 on the scale. In terms of specific negative emotions, participants reported comparable levels of panic and worry (items 27 and 35). However, they did not express nervousness about receiving corrective feedback (item 43). Additionally, participants indicated that the process of correcting their pronunciation errors (item 31) was uncomfortable.

Tab. 2: Cognitive component questionnaire items

	MEAN	SD	MEDIAN	MODE
28 If I could, I'd travel as much as possible to English-speaking countries to improve my English pronunciation.	1.49	1.12	1	1
29 If I learn to pronounce like a native speaker, I will have better job offers.	2.13	1.82	2	2
36 I can communicate better if I practice English pronunciation.	2.27	2.03	2	1,2
37 I believe more emphasis should be given to proper pronunciation in class.	1.56	1.23	1	1
42 Learning to pronounce well is the most important part of learning a language.	2.31	2.11	2	2

Table 2 presents participants' relatively high awareness of the importance of pronunciation training and its potential benefits in practical contexts. The level of reliability was above the acceptable level ($\alpha = 0,58437$). Specifically, participants acknowledged the importance of pronunciation in the labour market (item 29). Moreover, they demonstrated an awareness of the advantages of formal pronunciation training (item 37) and the benefits of exposure to the target language in informal settings (item 28). Notably, a relatively high score was assigned to the item emphasizing the prioritization of pronunciation over other aspects of foreign language learning (item 37).

The conative component (see Tab. 3) examines learners' actual engagement with pronunciation training opportunities, focusing on their behaviours and habits in this area. The level of reliability was below the acceptable level ($\alpha = 0,497427$). The results indicate that participants expressed generally neutral to partially agreeable attitudes toward the related statements, with all items receiving scores between 2 and 3. However, participants did not show a willingness to invest financially in learning materials (item

38). Their attitudes toward group-based and Internet-based activities (items 33 and 41) were comparable. Additionally, participants reported only a partial commitment to daily individual practice (item 33).

Tab. 3: Conative component questionnaire items

	MEAN	SD	MEDIAN	MODE
33 If I knew how to correct my pronunciation, I would spend at least 30 min a day practising it.	2.64	2.33	2,3	2
34 I participate in group activities with other English language learners because that helps improve my pronunciation skills.	2.43	2.16	2	2
38 When I hear of a good pronunciation textbook or computer program, I try to get it even if it is rather expensive.	3.71	3.38	4	5
41 I look for useful materials to practice English pronunciation on the Internet.	2.69	2.53	2	2

Tab. 4: Self-efficacy questionnaire items

	MEAN	SD	MEDIAN	MODE
26 I can acquire accurate English pronunciation if I practice.	1.56	1.12	1	1
32 I am satisfied with my pronunciation progress this last year.	2.09	1.83	2	2
39 I think I can improve my pronunciation using online materials	1.69	1.34	1	2
40 I feel confident that people understand me when I talk.	1.7	1.29	2	2

The final section of the questionnaire examines learners' self-evaluation of their abilities in improving and acquiring English pronunciation skills. The level of reliability was below the acceptable level ($\alpha = 0,392796011$). Overall, participants consistently demonstrated confidence in their capabilities, with item averages ranging between full and partial agreement. The only item that received partial agreement was item 32, which relates to their perceived progress at the time of the data collection (mid-semester). Participants acknowledged the need for further improvement in their pronunciation while expressing a level of satisfaction with their achievements during the current semester.

Discussion

The LAMP inventory, developed by Sardegna, Lee, and Kusey (2014), serves as a valuable tool for investigating learners' attitudes towards pronunciation training. This instrument assesses learners' attitudes across four domains: cognitive, affective, and

conative factors, as well as perceived self-efficacy. The findings of the current study, however, show partial inconsistencies compared to previous research conducted by Sardegna et al. (2014) and Tabandeh and Parvaneh (2020), who used the same instrument.

Similar to Sardegna et al. (2014), participants in the present study reported a relatively low intention to engage in pronunciation training, which contradicts the findings and recommendations of Atli & Bergill (2012), Levis (2005), Saito (2012) and Thomson (2012b) related to regular and systematic practice leading to improved pronunciation. as well as low engagement in cognitive and affective factors, particularly those related to negative emotions. Despite this, participants demonstrated a higher level of confidence in their self-efficacy, though they were still less inclined to actively pursue pronunciation training. This difference suggests that, while participants cognitively acknowledge the importance of accurate pronunciation, such as its use in the job market (Gatbonton et al., 2005; Derwing & Munro, 2009; Zielinski, 2012), they may lack the motivation to take practical steps toward improving it. Furthermore, participants expressed relatively neutral emotional responses, indicating that they were not overly concerned about potential pronunciation mistakes. This is in contradiction to the findings of Baran-Lucarz (2017) and Erdel (2023) who identified the tendency for higher levels of anxiety in more proficient English learners (English masters, intensely trained learners). Two groups of factors (conative and self-efficacy) have appeared to be rather inconsistent among participants.

In contrast to Sardegna et al. (2014), however, participants in this study reported higher levels of self-efficacy. Conversely, the findings of Tabandeh and Parvaneh (2020) revealed an increased intention to practice pronunciation, which was linked to a heightened awareness of its importance, as well as stronger negative emotional responses to pronunciation errors.

Conclusion

Due to the increasing importance of comprehensible pronunciation among EFL learners, it is essential to investigate ways to enhance learner engagement and motivation. Analyzing learners' attitudes represents the first step in this process. The LAMP inventory (Sardegna et al., 2014) was utilized to address the following research questions:

1. *What are the pre-service teachers' attitudes towards English pronunciation practice*

Participants generally exhibited positive attitudes toward pronunciation across all four domains: cognitive, conative, affective, and self-efficacy. They acknowledged the

importance of pronunciation in everyday communication, were aware of the emotional responses when speaking, and recognized that taking active steps would enhance their pronunciation, as they believed improvement was within their capabilities.

2. *Which attitudinal components have the most significant impact on the process?*

Analysing the values of individual statements across all factors, participants demonstrated a strong sense of self-efficacy and cognitive awareness of the importance of pronunciation. This was reflected in their ability to understand and be understood when speaking, their effective use of available learning materials, and their appreciation for pronunciation instruction in the classroom, along with its relevance to the job market. However, participants reported a lack of motivation to engage in regular, systematic practice, along with the relatively low influence of negative emotions on their pronunciation, which requires further investigation in future research and combination with other data can be used for formulating classroom materials targeted at tailoring pronunciation courses according to students' needs and interests.

The findings of this research indicate a broad scope for further exploratory investigations. For instance, the recent findings could be extended by examining learners' motivation to improve pronunciation. Such findings provide insights into the application of effective strategies for enhancing the conative factor in the daily practices of learners. However, one of the limitations of this study lies in its sample size, which creates limited opportunities for the generalizability of the results and limits statistical comparisons with the original study. However, the identified inconsistencies in data related to conative factors and self-efficacy, contrasted with the consistency in affective and cognitive factors, suggest avenues for further investigation.

References

- Akeem, A. & Rasak, N. Z. B. A. (2019). Improving English as a second language learners' attitudes to pronunciation through motivation. *Journal of Psychology & Behavior Research*, 1(1). DOI: 10.22158/jpbr.v1n1p56
- Aksakalli, C., & Yagiz, O. (2020). The pre-service EFL teachers' development of phonological processing and evaluation of their attitudes toward pronunciation. *GIST Education and Learning Research Journal*, 20, 7-31.
- Almusharraf, A. (2022). EFL learners' confidence, attitudes, and practice towards learning pronunciation. *International Journal of Applied Linguistics*, 32(1), 126-141. DOI: 10.1111/ijal.12408
- American TESOL Institute. (2024). *Global distribution of native and non-native English speakers*. <https://americantesol.com/tesol-report.html>

-
- Atli, I., & Bergil, A. S. (2012). The effect of pronunciation instruction on students' overall speaking skills. *Procedia-Social and Behavioral Sciences*, 46, 3665-3671.
- Bandura, A. (2006). Guide for constructing self-efficacy scales. *Self-efficacy beliefs of adolescents*, 5(1), 307-337.
- Baran-Łucarz, M. (2014). The link between pronunciation anxiety and willingness to communicate in the foreign-language classroom: The Polish EFL context. *Canadian Modern Language Review*, 70(4), 445-473.
- Baran-Łucarz, M. (2017). FL pronunciation anxiety and motivation: Results of a mixed-method study. *At the crossroads: Challenges of foreign language learning*, 107-133. DOI 10.1007/978-3-319-55155-5_7
- Breckler, S. J. (1984). Empirical validation of affect, behavior, and cognition as distinct components of attitude. *Journal of personality and social psychology*, 47(6), 1191. <https://doi.org/10.1037/0022-3514.47.6.1191>
- Burgess, J., & Spencer, S. (2000). Phonology and pronunciation in integrated language teaching and teacher education. *System*, 28, 191-215. [https://doi.org/10.1016/S0346-251X\(00\)00007-5](https://doi.org/10.1016/S0346-251X(00)00007-5)
- Burri, M. (2015). Student teachers' cognition about L2 pronunciation instruction: A case study. *Australian Journal of Teacher Education (Online)*, 40(10), 66-87.
- Burri, M., Baker, A., & Chen, H. (2017). "I feel like having a nervous breakdown": Pre-service and in-service teachers' developing beliefs and knowledge about pronunciation instruction. *Journal of Second Language Pronunciation*, 3(1), 109-135. DOI: <https://doi.org/10.1075/jslp.3.1.05bur>
- Chan, V. (2021). Factors influencing intelligibility and comprehensibility: a critical review of research on second language English speakers. *Journal of English learner education*, 12(1), 6.
- Cortés, Y. A. M. (2016). Unveiling pre-service teachers' attitudes toward teaching: The role of pedagogical practicum. *Profile: Issues in Teachers Professional Development*, 18(2), 47-61.
- Coskun, A. (2011). Future English teachers' attitudes towards EIL pronunciation. *Journal of English as an International Language*, 6(2), 46-68.
- Couper, G. (2011). What makes pronunciation teaching work? Testing for the effect of two variables: socially constructed metalanguage and critical listening. *Language Awareness*, 20(3), 159-182. DOI: 10.1080/09658416.2011.570347
- Couper, G. (2017). Teacher cognition of pronunciation teaching: Teachers' concerns and issues. *Tesol Quarterly*, 51(4), 820-843. <https://doi.org/10.1002/tesq.354>
- Derwing, T. M., & Munro, M. J. (2009). Putting accent in its place: Rethinking obstacles to communication. *Language teaching*, 42(4), 476-490. DOI:10.1017/S026144480800551X

-
- Erdel, D. (2023). Exploring English major students' pronunciation anxiety. *International Journal of Turkish Educational Sciences*, 11(21), 522-548. <https://doi.org/10.46778/goputeb.1255997>
- Feigenbaum, E. (2007). *The role of language anxiety in teacher-fronted and small-group interaction in Spanish as a foreign language: How is pronunciation accuracy affected?* (Doctoral dissertation, University of Pittsburgh).
- Flege, J., Birdsong, D., Bialystok, E., Mack, M., Sung, H. & Tsukada, K. (2006). Degree of foreign accent in English sentences produced by Korean children and adults. *Journal of Phonetics*, 34, 153-175. <https://doi.org/10.1016/j.wocn.2005.05.001>
- García, C., Nickolai, D., & Jones, L. (2020). Traditional versus ASR-based pronunciation instruction. *Calico Journal*, 37(3), 213-232. <https://doi.org/10.1558/cj.40379>
- Gatbonton, E., Trofimovich, P., & Magid, M. (2005). Learners' ethnic group affiliation and L2 pronunciation accuracy: A sociolinguistic investigation. *TESOL Quarterly*, 39(3), 489-511.
- Gatbonton, E., Trofimovich, P., & Segalowitz, N. (2011). Ethnic group affiliation and patterns of development of a phonological variable. *The Modern Language Journal*, 95(2), 188-204.
- Gómez Lacabex, E., & Roothoof, H. (2023). Pronunciation anxiety, pronunciation-related views and pronunciation learning actions of EMI and English major students. *Research in Language* (2023), 21(4). DOI: 10.18778/1731-7533.21.4.01
- Greenwald, A. G. (1968). On defining attitude and attitude theory. *Psychological foundations of attitudes*, 99, 361-388.
- He, L. (2011). Metacognition in EFL pronunciation learning among Chinese tertiary learners. *Applied Language Learning*, 21(1), 1-27. <https://doi.org/10.5167/uzh-128569>
- Hişmanoğlu, M. (2006). Current perspectives on pronunciation learning and teaching. *Journal of language and linguistic studies*, 2(1), 101-110.
- Isaacs, T., & Trofimovich, P. (2012). Deconstructing comprehensibility: Identifying the linguistic influences on listeners' L2 comprehensibility ratings. *Studies in Second Language Acquisition*, 34(3), 475-505. DOI: <https://doi.org/10.1017/S0272263112000150>
- Khoirida, A. (2020). Pre-service English teachers' perceptions of pronunciation. *Language Literacy*, 4(1), 47-55. DOI: 10.30743/ll.v4i1.2195
- Kimura, H. (2021). Investigating second language pronunciation anxiety in the Japanese context. In *Investigating individual learner differences in second language learning* (pp. 73-93). Cham: Springer International Publishing. DOI: <https://doi.org/10.1007/9>
- Kissling, E. M. (2013). Teaching pronunciation: Is explicit phonetics instruction beneficial for FL learners? *The Modern Language Journal*, 97(3), 720-744.

-
- Kralova, Z., Skorvagova, E., Tirpakova, A., & Markechova, D. (2017). Reducing student teachers' foreign language pronunciation anxiety through psycho-social training. *System*, 65, 49-60. <https://doi.org/10.1016/j.system.2017.01.001>
- Levis, J. M. (2005). Changing contexts and shifting paradigms in pronunciation teaching. *TESOL Quarterly*, 39(3), 369-377. doi: 10.2307/35884857
- Martin, S., Alvarez, I. M., & Espasa, A. (2022). Video feedback and foreign language anxiety in online pronunciation tasks. *International Journal of Educational Technology in Higher Education*, 19(1), 19. DOI <https://doi.org/10.1186/s41239-022-00324-y>
- McCrocklin, S. M. (2016). Pronunciation learner autonomy: The potential of automatic speech recognition. *System*, 57, 25-42. <https://doi.org/10.1016/j.system.2015.12.013>
- Munro, M., & Derwing, T. (1995). Foreign accent, comprehensibility, and intelligibility in the speech of second language learners. *Language Learning*, 45, 73-97. <https://doi.org/10.1111/j.1467-1770.1995.tb00963.x>
- Nagle, C. L., & Huensch, A. (2020). Expanding the scope of L2 intelligibility research: Intelligibility, comprehensibility, and accentedness in L2 Spanish. *Journal of Second Language Pronunciation*, 6(3), 329-351. DOI: <https://doi.org/10.1075/jslp.20009.nag>
- Ngo, T. T. N., Chen, H. H. J., & Lai, K. K. W. (2024). The effectiveness of automatic speech recognition in ESL/EFL pronunciation: A meta-analysis. *ReCALL*, 36(1), 4-21. DOI: <https://doi.org/10.1017/S0958344023000113>
- Ostrom, T. M. (1969). The relationship between the affective, behavioral, and cognitive components of attitude. *Journal of Experimental Social Psychology*, 5(1), 12-30. [https://doi.org/10.1016/0022-1031\(69\)90003-1](https://doi.org/10.1016/0022-1031(69)90003-1)
- Pardede, P. (2010). The role of pronunciation in a Foreign language program. *FKIP-UKI English Department Bimonthly Collegiate*.
- Piske, T., MacKay, I., & Flege, J. (2001). Factors affecting degree of foreign accents in an L2: a review. *Journal of Phonetics*, 29, 191-215. <https://doi.org/10.1006/jpho.2001.0134>
- Saito, K. (2012). Effects of instruction on L2 pronunciation development: A synthesis of 15 quasi-experimental intervention studies. *TESOL Quarterly*, 46(4), 842-854. doi: 10.1002/tesq.67
- Sardegna, V. G., Lee, J., & Kusey, C. (2014). Development and validation of the learner attitudes and motivations for pronunciation (LAMP) inventory. *System*, 47, 162-175. <https://doi.org/10.1016/j.system.2014.10.009>
- Scovel, T. (2000). A critical review of the critical period research. *Annual Review of Applied Linguistics*, 20, 213-223. <https://doi.org/10.1017/S0267190500200135>
- Shehzad, M. W., Alghorbany, A., Lashari, S. A., Lashari, T. A., & Razzaq, S. (2019). The interplay between pronunciation self-efficacy sources and self-efficacy beliefs: A structural equation modeling approach. *Indonesian Journal of Applied Linguistics*, 9(1). doi: 10.17509/ijal.v9i1.15933

-
- Shehzad, M. W., Hasan, M. K., Ahmed, R., Razzaq, S., & Ahmed, S. (2022). The nexus between grit and pronunciation performance among EFL learners: the mediating role of pronunciation self-efficacy beliefs. *Learning and Teaching in Higher Education: Gulf Perspectives*, 18(1), 32-48.
- Smit, U. (2002). The interaction of motivation and achievement in advanced EFL pronunciation learners. *IRAL*, 40, 89e116. <https://doi.org/10.1515/iral.2002.009>
- Smit, U., & Dalton, C. (2000). Motivation in advanced EFL pronunciation learners. *International Review of Applied Linguistics in Language Teaching*, 38, 229e246. <https://doi.org/10.1515/iral.2000.38.3-4.229>
- Suwartono, S., Fafli, Z. (2014). Enhancing the pronunciation of English suprasegmental features through reflective learning method. *TEFLIN Journal*, 25(1), 80–93. <https://doi.org/10.15639/teflinjournal.v25i1/80-93>
- Svenningsson, J., Höst, G., Hultén, M., & Hallström, J. (2022). Students' attitudes toward technology: exploring the relationship among affective, cognitive and behavioral components of the attitude construct. *International Journal of Technology and Design Education*, 32(3), 1531-1551. <https://doi.org/10.1007/s10798-021-09657-7>
- Szyszka, M. (2011). Foreign language anxiety and self-perceived English pronunciation competence. *Studies in Second Language Learning and Teaching*, 1(2), 283-300.
- Szyszka, M. (2015). Good English pronunciation users and their pronunciation learning strategies. *Research in Language*, 13(1), 93-106. DOI [10.1515/rela-2015-0017](https://doi.org/10.1515/rela-2015-0017)
- Tabandeh, F., & Parvaneh, E. (2020). LAMP revalidated: Iranian English-major learners' attitudes and motivations regarding teaching and learning English pronunciation. *Research in English Language Pedagogy*, 8(2), 374-398.
- Thomson, R. I. (2012a). ESL teachers' beliefs and practices in pronunciation teaching: confidently right or confidently wrong? *Pronunciation in Second Language Learning and Teaching Proceedings*, 4(1).
- Thomson, R. I. (2012b). Improving L2 listeners' perception of English vowels: A computer-mediated approach. *Language Learning*, 62(4), 1231-1258. DOI: [10.1111/j.1467-9922.2012.00724.x](https://doi.org/10.1111/j.1467-9922.2012.00724.x)
- Thomson, R. & Derwing, T. (2014). The effectiveness of L2 pronunciation instruction: A narrative review. *Applied Linguistics*, 36(3), 326-344. doi: [10.1093/applin/amu076](https://doi.org/10.1093/applin/amu076)
- Tlazalo Tejada, A. C., & Basurto Santos, N. M. (2014). Pronunciation instruction and students' practice to develop their confidence in EFL oral skills. *Profile: Issues in Teachers Professional Development*, 16(2), 151-170.
- Tominaga, Y. (2009). An analysis of successful pronunciation learners: in search of effective factors in pronunciation teaching. *Journal of Pan-Pacific Association of Applied Linguistics*, 13(1), 127-140.
- Uchida, Y., & Sugimoto, J. (2016). A survey of Japanese English teachers' attitudes towards pronunciation teaching and knowledge on phonetics: Confidence and teaching. *Proceedings of ISAPh2016: Diversity in Applied Phonetics*, 38-42.

-
- Vančová, H. (2020). *Pronunciation practices in EFL teaching and learning*. University of Hradec Králové, Gaudeamus Publishing House.
- Vančová, H. (2021). *Teaching English pronunciation using technology*. Kirsch Verlag.
- Vančová, H. (2023). AI and AI-powered tools for pronunciation training. *Journal of Language and Cultural Education*, 11(3), 12-24. DOI: 10.2478/jolace-2023-0022
- Véliz, M. (2012). Language learning strategies (LLSs) and L2 motivation associated with L2 pronunciation development in pre-service teachers of English. *Literatura y lingüística*, 25, 193-220.
- Wagner, E., & Toth, P. D. (2017). The role of pronunciation in the assessment of second language listening ability. *Multilingual Matters*.
- Yang, X. (2017). Sources of Chinese learners' self-efficacy in learning English pronunciation. *Theory and Practice in Language Studies*, 7(6), 449. DOI: <http://dx.doi.org/10.17507/tpls.0706.06>
- Yaniafari, R. P., & Olivia, V. (2022). The potential of ASR for improving English pronunciation: A review. *KnE Social Sciences*, 281-289. DOI: 10.18502/kss.v7i7.10670
- Zhou, Y. (2019). How motivation as quality influence ESL learners' attitudes toward English pronunciation learning. *International Journal of English Language Teaching*, 6(2), 33-51. doi:10.5430/ijelt.v6n2p33
- Zielinski, B. (2012). The social impact of pronunciation difficulties: Confidence and willingness to speak. *Pronunciation in Second Language Learning and Teaching Proceedings*, 3(1).

Teaching pronunciation of medical terms among Slovak students of general medicine and dentistry

Tomáš Hamar

1 Teaching pronunciation as part of language instruction

The current approach to teaching English as a foreign or second language, as Béréšová (2020, pp. 21–22) notes, is based on communicative language teaching (CLT), which aims to develop learners' communicative competence through active engagement in meaningful communication. The CLT approach involves learner-centred teaching, process-oriented learning, and a focus on learners' strengths and weaknesses as language learners. Teachers act as facilitators and create a classroom climate conducive to language learning while learners learn through collaboration and sharing. Authentic materials are used to promote real-life language use (Béréšová, 2015, pp. 196–197), and self-directed learning is encouraged to develop learners' autonomy in language learning (Kováč & Hankerová, 2022, p. 90). The Common European Framework of Reference for Languages (CEFR) creates a common language across national and linguistic boundaries to talk about objectives and language levels. Learners are encouraged to be proactive in identifying their learning needs, setting goals, planning their learning, selecting learning strategies, monitoring progress, and self-assessment (CEFR, 2018, p. 35).

The ultimate goal of language learning is to be able to use the new language both accurately and fluently. These principles can be applied in different ways, depending on the teaching context, the age of the learners, their proficiency level, their learning goals, and so on. Teaching pronunciation in English is an essential aspect of language instruction. In today's global society, where English is the lingua franca of business, science, medicine and diplomacy, being able to speak English clearly and be well understood in oral communication is an essential skill. Recent studies have emphasized the importance of teaching pronunciation, demonstrating that it can significantly impact a learner's communicative competence and overall success in language acquisition. For example, Thomson & Derwing (2015, pp. 326–344) present a review of the research on pronunciation instruction. The authors found that teaching pronunciation can have a significant impact on learners' overall language acquisition, including their ability to communicate effectively with native speakers. The authors review multiple studies on the effectiveness of pronunciation instruction and conclude that "*there is strong evidence that pronunciation instruction is effective*" (Thomson & Derwing, 2015, p. 336). They also

note that "*learners can benefit from explicit instruction in pronunciation throughout their language learning careers*" (Ibid.).

One of the primary reasons why teaching pronunciation is important is that it improves learners' intelligibility. When a learner speaks English with incorrect pronunciation, it can lead to misunderstandings and miscommunications, making it difficult for others to understand what they are saying. Research has shown that even a small improvement in pronunciation can make a significant difference in how well a learner is understood (Munro & Derwing, 2015, p. 12). Improved intelligibility leads to greater confidence in speaking and can ultimately contribute to greater success in social and professional contexts. A clear and understandable pronunciation in the English language is a necessary condition (*conditio sine qua non*) for effective oral communication in a foreign language.

The main goal of teaching pronunciation nowadays is the comprehensibility of the speaker (Béřešová, 2013, p. 48) This goal is based on Communicative Language Teaching, an approach to language instruction that stresses interaction as both the means and end of language instruction. At the other end of the scale of goals, in terms of their ambition, is authentic native-like pronunciation (Pennington & Rogerson-Revell, 2019, p. 134).

However, aiming for authentic native-like pronunciation can be an overly ambitious goal that is difficult to achieve, particularly for non-native speakers. Research has shown that this goal can have a negative impact on the self-evaluation of language teachers themselves. For instance, Kráľová & Malá (2018, p. 1327) found in their semi-structured interviews with language teachers that the pressure to achieve native-like pronunciation can lead to feelings of frustration and inadequacy, ultimately affecting their confidence and motivation to teach pronunciation effectively.

Therefore, language teachers need to understand that while pronunciation is an important aspect of language learning, the ultimate goal should be the comprehensibility of the speaker. By focusing on clear and effective communication, rather than striving for native-like pronunciation, language learners can develop the necessary skills to communicate effectively in a variety of settings. For a better understanding of the approaches and techniques used in teaching pronunciation nowadays, Allegra (2018, pp. 1-4) summarizes the historical development of approaches to pronunciation teaching. She states that in the early 1940s, the army method was developed to teach foreign languages for espionage purposes during World War II, which emphasized accuracy in pronunciation. The audio-lingual method (ALM) emerged in the 1940s–1960s, which aimed to develop a native or near native-like pronunciation through an analytic-linguistic approach that emphasizes formal, explicit pronunciation teaching of the segmental and suprasegmental elements of the second language. The communicative language teaching approach (CLT) initially did not prioritize the pronunciation component but later recognized the importance of intelligible pronunciation in communicative competence.

English for Specific Purposes (ESP) occupies a unique place within the Communicative Language Teaching (CLT) approach, as it concentrates on teaching English that is tailored to the specific needs of learners in a variety of professional or academic contexts (Basturkmen, 2010, p. 57). CLT is well-suited for ESP courses because it emphasises communication, interaction, and the practical application of language in real-world situations (Basturkmen, 2010, p. 135). In an increasingly globalised world, there is a developing need for undergraduate students to develop their proficiency in ESP skills and knowledge. Knowledge of ESP is a crucial factor in students' subject matter learning and is also closely related to the performance of university graduates in the pertinent sectors. To assure the quality of the language learning process, careful planning and effective execution are indispensable. Currently, there is relatively little focus on pronunciation training within ESP, as there are other areas that teachers need to address more urgently (mastery of vocabulary, and essentials of written communication in the field). However, with the advent of new technologies that help professionals construct professional texts, there is also room for pronunciation training (Warchot, 2020, p. 158).

1.1 Pronunciation teaching techniques

The main techniques and practices in Teaching pronunciation include (Vančová, 2020, p. 20): (1) phonetic training based on descriptions of articulation and phonetic transcription, (2) minimal pair drills based on the discrimination of words based on phonemes, (3) using minimal pairs in a sentence context, (4) visual aids used to make cues of target sounds, (5) tongue twisters, (6) development of approximation skills based on the chronological acquisition of sounds, (7) the practice of vowel and stress shifts in words with affixes, (8) reading aloud, (9) recording of learners' production for self, peer and teacher evaluation.

Javorčíková & Kováč (2021, p. 35) assert that educators often rely on conventional teaching approaches, including dictation, reading aloud, and dialogues. Hismanoglu & Hismanoglu (2010, p. 988) further suggest that this preference could stem from the educators' own language-learning experiences, as they tend to teach pronunciation in a manner consistent with how they were taught. Educators should also consider incorporating modern technology, such as computer-based programmes and internet resources, to diversify and improve pronunciation instruction. By integrating these tools and remaining informed about available online pronunciation teaching resources, instructors can select techniques that are more effective and engaging for their ESP students.

1.2 The significance of phonetic alphabets in the instruction of pronunciation

Phonetic alphabets play a vital role in teaching pronunciation by allowing a one-to-one correspondence between the symbol and the sound it represents. The most well-

known and universally accepted phonetic notation system is the International Phonetic Alphabet (IPA), which was created and issued by the highest authority in phonetic research: The International Phonetic Association. The organization was established in 1886, and its most well-known contribution is the development of the International Phonetic Alphabet and the issuing of The Handbook of the International Phonetic Association. The Handbook has been created through the collaboration of prominent phoneticians who have served on the Association's Executive Board, and it includes contributions from members worldwide (HIPA, 1999. foreword, s. n.). Five main advantages of using the International Phonetic Alphabet, according to Allegra (2018, p. 5–6), include:

1. IPA helps teachers diagnose learners' pronunciation, record and analyse it for future classroom planning, and enable learners to recognize, understand, and fix their pronunciation mistakes.
2. IPA constitutes an exact representation of spoken language, which can be used to teach learners the standard pronunciation regardless of dialectal variations.
3. IPA allows learners to compare the standard pronunciation and their pronunciation, promoting autonomous learning and self-monitoring.
4. IPA saves time in comparison to listening and drilling activities and can be used to teach both segmental and suprasegmental elements of pronunciation.
5. IPA provides a means for learners to understand and use written discourse more accurately and effectively, especially for languages where the written form is not a close representation of spoken discourse.

The International Phonetic Alphabet is a powerful tool in the instruction of pronunciation. The IPA permits educators to precisely diagnose, analyse, and address learners' pronunciation challenges by offering a uniform and global method for representing sounds. Furthermore, actively engaging in self-monitoring and comparing with normative pronunciation, fosters autonomy in language learners. The IPA simplifies instruction while also improving students' comprehension of and proficiency with written speech, regardless of dialectal differences.

The utilization of the International Phonetic Alphabet (IPA) in clinical settings is of utmost significance. This is because it allows instructors and specialized educators to precisely depict and convey pronunciation concerns that are linked to speech disabilities or impediments. By doing so, targeted interventions can be executed effectively, ensuring that individuals with speech disorders receive the necessary support and attention they require. In essence, the incorporation of IPA in clinical contexts is a vital component in facilitating communication and improving the overall quality of life for those who struggle with speech difficulties (Howard & Heselwood, 2002, p. 371).

Incorporating exercises that utilize IPA transcription can yield significant benefits in improving students' pronunciation of medical terminology. By introducing students to the

IPA symbols and their corresponding sounds, they can begin to associate specific sounds with their respective symbols, leading to a more comprehensive understanding of each term's pronunciation. This heightened awareness also allows them to distinguish between phonetic elements in similar-sounding terms, thereby enhancing their self-monitoring skills. Moreover, comparing their pronunciation to the transcription helps students identify discrepancies and make necessary adjustments, resulting in more accurate pronunciation.

Furthermore, these exercises place a deliberate emphasis on pronunciation, underscoring its importance in language learning and communication. They also expose students to dialectal variations, such as differences between British and American English, enabling them to adapt their pronunciation according to their interlocutors' dialects.

1.3 Implementing phonetic transcription in pronunciation teaching of dental medical terms

Bearing in mind the scarcity of research in the very specific field of teaching ESP classes to students of dentistry in general and pronunciation, particularly worldwide, it is essential to explore the implementation of phonetic transcription in pronunciation teaching of dental, and medical terms to help learners overcome pronunciation challenges and enhance their communicative competence within their specialized field.

The precise pronunciation of dental medical terms is of utmost importance for seamless communication among dental professionals. It ensures that diagnoses, treatments, and procedures are accurately comprehended, leading to better patient outcomes. To aid students in mastering the pronunciation of complex dental terms, educators can implement the International Phonetic Alphabet (IPA) in their teaching methodology. IPA offers a standardized system for representing each sound, thus enabling students to realize the exact sounds required to articulate dental terms. Various studies have shown that implementing pronunciation-focused activities, including IPA was highly beneficial, and there has been tremendous progress in the pronunciation skills of participants from the initial pronunciation test to the final pronunciation test (Jahara & Abdelrady, 2021, p. 209).

To integrate IPA into dental medical terminology instruction, instructors can begin by introducing students to the basic IPA symbols and their corresponding sounds, with a focus on those most relevant to dental terms. Once a solid foundation has been established, targeted exercises can be presented that incorporate IPA transcriptions of dental terms alongside their conventional orthographic representation. These exercises can include listening tasks, transcription practice, and pronunciation drills, all aimed at honing students' skills in recognizing and producing accurate IPA transcriptions of dental terms.

By consistently utilizing IPA in teaching dental medical terminology, students can develop a deeper understanding of the relationship between sounds and their written representation. This enables them to self-monitor and adjust their pronunciation, ensuring clear and accurate communication within their professional field. Furthermore, the incorporation of IPA in dental/medical education fosters an adaptable approach to pronunciation learning, empowering students to communicate effectively with colleagues from diverse linguistic backgrounds. Overall, the implementation of IPA in teaching dental medical terminology is a crucial step towards enhancing students' mastery of pronunciation and improving communication among international dental professionals.

1.4 Interference in English pronunciation from Slovak and Greek and Latin terminology training

As Kráľová (2011, p. 11) states: “In linguistics, the term interference has different meanings. It is defined in a broad sense as the influence of languages on numerous linguistic levels. Positive and negative transfers are distinguished in foreign language teaching theory, and the term interference is used in a restricted sense to refer only to the negative impact of the native language on the acquisition of a foreign language.”

Furthermore, she gives a comprehensive comparison of English and Slovak phonetic systems on the segmental level (Kráľová, 2011, pp. 23–24):

- I. The vocalic subsystems of Slovak and English differ significantly in terms of phonemes, quality, and quantity. The fact that English has 20 vocalic phonemes and Slovak has 14 or 15 indicates that English has a finer phonological filter than Slovak. The primary difference between English and Slovak vowels is their quality, which is less significant in Slovak (Pavlík 2000, p. 56; note TH: the author discusses this issue in more depth in his latest publication: Hankerová, Kováč & Pavlík, 2022). The primary distinction between Slovak vowels is their quantity, which in English is unique to vowels and depends on the surrounding sounds, especially the following fortis or lenis consonant. In addition, the sound realisation of English vowels is more unstable than Slovak vowels, as lengthy English vowels tend to diphthongize and diphthongs tend to monophthongise. In English, the quality of vowels in unstressed syllables is considerably lower than in stressed syllables, whereas, in Slovak, the primary distinction between stressed and unstressed vowels is the degree of intensity.
- II. In terms of phoneme inventory, characteristics, and articulation, the consonantal subsystems of the English and Slovak languages differ considerably. The inventory of English consonantal phonemes, specifically in the Received Pronunciation (RP) system, consists of 24 elements), whereas the Slovak system consists of 27 elements (Gregorová, 2022, pp. 57-58). The most prominent characteristic of Slovak consonants is the neutralizable opposition between voiced and voiceless

sounds, which is irrelevant in English. Instead, the primary characteristic of English consonants is the opposition between tension and relaxation that cannot be neutralised.

- III. In the initial position, English fortis explosives are noticeably aspirated, whereas Slovak phonemes lack aspiration as a distinctive property. The English consonant system lacks palatal [tʃ], [dʒ], [nʃ], [lʃ], affricate [tʃ], [dʒ], and fricative [x] elements. In English, the velar [ŋ] is a phoneme, but in Slovak, it is merely a combinatorial variant of the phoneme [ŋ] before k and g. In English, [w] and [v] are distinct phonemes, whereas in Slovak, [u] is an allophone of [v] in the post-sonantic portion of the syllable. The Slovak language lacks the dental fricatives [θ] and [ð] found in English. In English, the phoneme [l] has three allophones, namely clear, dark, and devoiced, whereas, in Slovak, the phonemes alveolar [l] and palatal [ɫ] exist independently. In English, the unpaired glottal constrictive [h] belongs to the fortis consonants, whereas in Slovak it is a voiced paired consonant.
- IV. Due to the above-mentioned differences in the phonetic systems of the Slovak and English languages, characteristic pronunciation errors arise based on an incorrect adaptation of sounds existing in the English language but not in the Slovak language and replacing them with native sounds of the Slovak language. Contrastive analysis in teaching English pronunciation is based on essential in identifying and addressing these issues in language learners (Kissová, 2020, p.61).
- V. As Vančová (2016, p. 271) states, the most common mistakes in pronunciation are based on the differences between the Slovak and English phonetic systems: The absence of specific English phonemes in Slovak, such as /æ/, /ə/, /ɜ:/, /əʊ/, /ð/, /θ/, and others, along with the different functions of some phonemes that are only allophones in Slovak (for example, /v/ - /w/), or the absence of certain Slovak phonemes in English (like the velar fricative /x/), all contribute to the majority of pronunciation errors. These errors often manifest as the substitution of one phoneme for another, incorrect sound quality or duration, or improper stress placement, and can be compounded even within a single word.

The pronunciation of Latin has undergone significant changes throughout history, posing challenges for contemporary Latin speakers attempting to comprehend its historical phonetic variations. Over various epochs, phonemic shifts have occurred in Latin, leading to instances where distinct letters represent identical sounds, complicating the study of Latin's historical linguistic evolution (Arnold, 2016, p. 6). In the pronunciation of Latin, there are two basic models, the so-called classical pronunciation and the ecclesiastical pronunciation. When teaching Latin in Slovakia, whether classical Latin or Latin, for specific purposes, we use the ecclesiastical pronunciation as a rule (Juríková, 2019, p. 227). Apart from the difference between ecclesiastical and classical pronunciation, the most important factor influencing the pronunciation of speakers of

Latin is the language of instruction. The phonological specifics of the language of utterance are strongly reflected in the pronunciation form of Latin. For this reason, when a Latin text is read by, for example, a native French speaker, it sounds exactly like French to a non-French speaker.

Students who take Latin medical terminology classes somehow intuitively assume that the Latin pronunciation they have acquired is universal and worldwide. In reality, it is an ecclesiastical pronunciation strongly adapted to the phonetic inventory of the Slovak language. Their belief that it is an international Latin pronunciation causes them to adapt the pronunciation of lexemes of Latin origin they know from Latin lessons to the Slovak language in other languages and not to the foreign language in which the pronunciation is produced.

The development of medical terminology is closely tied to the evolution of medicine itself, with its roots in classical Latin and Greek. There are two main components of medical terminology:

- I. "*Terminologia anatomica*" – established by the Federative Committee on Anatomical Terminology (FCAT) in 1998, this standardized anatomical nomenclature consists of 80% Latin terms and 20% Greek terms.
- II. Clinical medical terminology – characterized by linguistic and formal inconsistencies, this component is predominantly derived from Greek, with a smaller proportion of Latin, Arabic, and, more recently, English terms. Eponyms are also common in this category (Rollerová & Vasilová, 2018, introduction).

The differences between the Slovak and English phonetic systems, as well as the influence of Latin and Greek terminology, contribute to pronunciation errors made by students learning medical terminology. Typically, such errors result from the absence or variation of specific phonemes between languages and improper location of stress. Educators can resolve these challenges by incorporating the International Phonetic Alphabet (IPA), which provides a standardised system for representing each sound, into their teaching methodology. By introducing IPA symbols and their corresponding sounds, students can gain a greater understanding of the linguistic differences in medical terminology pronunciation. Targeted exercises, such as listening tasks, transcription practice, and pronunciation routines, can help students improve their ability to recognise and produce accurate pronunciations. Incorporating IPA into medical terminology instruction can improve learners' pronunciation and communicative competence in their specialised field, guaranteeing precise communication among international professionals.

2 Applied research

2.1 Research objectives

Addressing pronunciation challenges in medical terms among Slovak students of general medicine and dentistry is crucial for effective communication with patients and fellow professionals. *Identification of the problem:* The Slovak students of general medicine and dentistry struggle with accurately pronouncing medical terms in English, which can affect their ability to communicate effectively with patients and other medical professionals. Phonetic transcription is one of the basic means of acquiring and practising the correct pronunciation. The present study aims to present the results of using the phonetic alphabet and practising transcription to improve English pronunciation. The methodology of the research was based on introducing or, in some cases, re-introducing students to IPA (International Phonetic Alphabet) to improve both the intelligibility of their pronunciation and help them modify their pronunciation in a way that would approximate the pronunciation of native speakers as much as possible.

2.2 Research questions

The research is designed to answer the following five research questions:

1. What are the specific pronunciation errors observed in Slovak dental students when pronouncing professional medical English lexemes?
2. Is the difference in phonetic inventories of Slovak and English languages the main cause of incorrect pronunciation?
3. How does a better understanding of articulation anatomy help dental students improve their pronunciation of English terms?
4. Are there cases of negative pronunciation interference in professional medical English due to negative interference from the Latin language?
5. How can the implementation of the IPA in teaching English for specific purposes to international students of medicine improve their pronunciation of medical terms?

2.3 Research participants and their language background

The research participants for this research were second-year university students of the Dentistry programme at the Faculty of Medicine, Comenius University in Bratislava (FMED CU), in the academic year 2022/23. These students have two semesters of compulsory specialised English courses in their curriculum. The first course is in the winter semester of the second year of studies, and the instruction continues also the summer semester. For their language instruction, students are divided into groups of 10 – 14. In the second year, there are 46 students divided into 4 groups – alphabetically, disregarding their level of English language. The study involved a group of 11 students, all of whom had Slovak as their mother tongue. Two students, however, had additional linguistic backgrounds: one was of Slovak-Hungarian ancestry and spoke Hungarian as a second language natively, while the other was of Arabic heritage and spoke Arabic as a

second language natively. We opted to include these students in the study because Slovak was one of their native languages for both of them. The students gave their written consent for me to use the results of the findings.

Tab. 1: Characteristics of participant

No.	Gender	Age	Mother tongue	Level of English/Certification
1	F	20	Slovak	B2 – Matura in English
2	F	20	Slovak	B2 – Matura in English
3	F	22	Slovak	C1 – State Exam B2 – Matura in English
4	F	21	Arabic-Slovak, bilingual (born and raised in Slovakia)	B2 – Matura in English
5	M	20	Slovak	B2 – Matura in English
6	M	22	Hungarian-Slovak, bilingual (born and raised in Slovakia)	B2 – Matura in English
7	F	22	Slovak	B2 – Matura in English
8	M	21	Slovak	B2 – Matura in English
9	M	21	Slovak	No certification in English, Matura in Spanish
10	F	20	Slovak	B2 – Matura in English
11	F	20	Slovak	B2 – Matura in English

At the FMED CU, Slovak dentistry students undergo language and terminology training during their first three years of study. This includes compulsory courses at the Institute of Medical Terminology and Foreign Languages. In the first year, students learn Latin medical terminology with a focus on dental medicine. Pronunciation instruction in this course varies among teachers. In the second year, students take two semesters of English for dentistry communication. Previously, German was an option, but it became an elective course in later years. In the 2020/2021 academic year, a second semester of English instruction was added to align with the General Medicine program. The ESP courses for dentistry students focus on professional vocabulary, grammar, and specialized topics. Multimedia resources enhance learning, and assessments include exams and presentations. Dentistry students are well-suited for improving English pronunciation due to their knowledge of mouth anatomy and the rigorous entrance exam process. Their precision, attention to detail, and communication skills are valuable in dentistry and can be transferred to language learning.

2.4 Plan of actions

As Koshy (2005, p. 3) states, action research creates new knowledge based on enquiries conducted within specific and often practical contexts, and the purpose of

action research is to learn through action leading to personal or professional development, while the research has to address a practical problem.

Identification of the problem: The Slovak students of general medicine and dentistry struggle with accurately pronouncing medical terms in English, which can affect their ability to communicate effectively with patients and other medical professionals.

The procedure of the study: The study involved implementing the IPA in a series of pronunciation lessons for Slovak students of medicine. The study was conducted for two semesters and various included phases:

Phase 1 – Creation of initial recordings with students

Phase 2 – Identification of pronunciation difficulties in initial recordings

Phase 3 – The cycle of creation of materials and techniques focused on a specific aspect of improvement of pronunciation and testing the materials in the classroom focused on IPA

Phase 4 – Creation of text material for recordings with specific problematic lexemes

Phase 5– Creation of recordings of the material with students (context-embedded vocabulary)

Phase 6 – Questionnaire about the usefulness of the pronunciation-focused instruction implemented into their curriculum

Phase 7 – Evaluation of the recordings

Phase 8 – Qualitative evaluation of the questionnaire

2.5 Conclusion and perspectives

The primary objective of this study was to address the difficulties encountered by Dentistry programme students at FMED CU in correctly pronouncing medical terms in English, which may hinder their ability to communicate effectively with patients and other medical professionals. The study introduced phonetic transcription as a fundamental method for learning and practising accurate pronunciation to fill the information deficit identified in the research questions. The action research employed a combination of methods, including surveys, questionnaires, and analysis of students' pronunciation before and after the training sessions. This study involved a limited number of Slovak-speaking dental students learning English. The foundation of the study is an appreciation of the significance of phonetic transcription and the need for accurate pronunciation in medical contexts. The research findings emphasise the effectiveness of various techniques for improving dental medical vocabulary pronunciation and stress patterns. Utilising online dictionaries, recordings, and IPA transcriptions were discovered to be beneficial in various ways. Individual learning preferences and patterns impacted the effectiveness of these methods. Therefore, educators should consider offering a variety of techniques to accommodate students' diverse learning requirements and preferences, ultimately assisting them in improving their dental medical vocabulary pronunciation and stress patterns. Overall, the study provides instructors and language

learners with valuable insights, paving the way for more effective and individualised pronunciation instruction in English medical terminology, especially for Slovak-speaking students. Additional research can examine the long-term effects of these techniques on the pronunciation skills and professional communication of medical students.

2.5.1 Research question answers

1. What are the specific pronunciation errors observed in Slovak dental students when pronouncing professional medical English lexemes?

When pronouncing professional medical English lexemes, Slovak Dentistry students have been found to make a variety of pronunciation errors. Among these errors are incorrect phonemic pronunciation, and inaccurate word stress. The following are examples of specific pronunciation errors:

- I. Substituting incorrect phonemes can also occur when both the English and Slovak phonemic systems share specific sounds, leading to confusion. For instance, students might pronounce "gingivitis" as /,gɪn. gɪ'vi.tɪs/ instead of the correct /,dʒɪn.dʒɪ'vaɪ.tɪs/ by mistakenly choosing the /g/ sound, instead of the /dʒ/ sound (both of these sounds are present in both languages). Similarly, in the word "cavities," students might pronounce it as /'keɪ.və.ti:z/ instead of the correct /'kæv.ə.ti:z/, substituting the /æ/ sound with the /e/ sound, both of which are present in their respective phonemic systems.
- II. Substituting phonemes that are common in the English phonetic system but not present in the Slovak phonetic system can lead to pronunciation errors. For example, the pronunciation of the word "teeth" might be affected by the influence of Slovak phonetics. Instead of pronouncing the word correctly as /ti:θ/, Slovak students may pronounce it as /ti:t/, substituting the English dental fricative /θ/ with the Slovak /t/ sound. This type of error can cause confusion and miscommunication in professional contexts.
- III. Mislacing word stress was observed as a prevalent error among Slovak dental students, which can be attributed to the fundamental differences between the Slovak and English languages concerning word stress placement. In the Slovak language, there is a fixed, non-movable stress on the first syllable of a word. If the word is compound, there is a secondary, less pronounced stress. For example, the Slovak word "poľnohospodár" has the primary stress on the first syllable and a secondary stress later in the word. On the other hand, English has variable stress patterns, which might lead Slovak students to misplace stress when pronouncing medical terms. For instance, students might pronounce "osteomalacia" with stress on the wrong syllable, like /'ɒs.te. ɒ.m ə.lətʃiə/ instead of the correct /,ɒs.ti.əu.mə'leɪʃə/. The issue extends to words with both primary and secondary stress, where students might fail to identify and apply the correct stress pattern.

These mistakes can be attributed to several factors, including differences in the phonetic inventories of the English and Slovak languages, interference from the students' native language (Slovak), and the influence of their prior exposure to Latin terminology. Additionally, differences in word stress patterns between English and Slovak can contribute to errors in stress placement, which can significantly affect the intelligibility of the students' pronunciation.

2. Is the difference in phonetic inventories of Slovak and English languages the main cause of incorrect pronunciation?

The differences in the phonetic inventories of the English and Slovak languages can be a major factor in incorrect pronunciation. When Slovak EFL learners try to pronounce certain English sounds, it may be challenging for them because those sounds simply do not exist in Slovak. It was interesting to observe the students as they realized that their seemingly correct pronunciation was, in fact, incorrect. This realization occurred even by the students themselves after watching a series of BBC videos about the pronunciation of selected phonemes that do not exist in the Slovak language. Perhaps the most surprising example was the Received Pronunciation (RP) diphthong /eʊ/ in words like "go" and "know," as the students were more accustomed to the American English pronunciation /oʊ/. The adaptation of this diphthong from the American English pronunciation to the pronunciation of the students could be due to the influence of the Slovak language, as the /oʊ/ sound exists in Slovak, whereas the RP /eʊ/ does not. In these cases, the students might have unconsciously attempted to apply the sounds from their native language to English words. The observation of students adjusting their pronunciation after watching instructional videos highlights the importance of raising their awareness of the differences between the two languages' phonetic inventories. By understanding these differences and engaging in targeted practice, students can work on improving their pronunciation and minimizing the influence of their native language on their English speech.

3. How does a better understanding of articulation anatomy help dental students improve their pronunciation of English terms?

Understanding the anatomy of articulation can significantly help dental students enhance their English pronunciation. Although dental students possess perhaps the most in-depth knowledge of the anatomical structures of the oral cavity of any student group, it is fascinating to note that they frequently do not connect this knowledge with the place and manner of sound production. This disconnection is the result of treating language instruction and anatomy instruction as separate fields of study as a part of their education. Instructors can pique students' interest in improving their pronunciation by emphasising the significance of anatomical knowledge concerning sound production and concentrating specifically on English sounds. In this context, ESP seminars at

medical schools can serve as the optimal setting for explaining the production of different vowels and consonants. This strategy can also serve as a foundation for future collaboration between ESP and anatomy instructors, as they work together to improve students' understanding of the relationship between articulation anatomy and pronunciation.

Significant improvements can result from encouraging dental students to consciously apply their anatomical knowledge to the pronunciation of English consonants. As they gain a greater understanding of the distinctions between Slovak and English sound production, they will be able to minimise the impact of their native language on their English pronunciation. This process will ultimately improve their ability to communicate with patients and coworkers in professional settings.

4. Are there cases of negative pronunciation interference in professional medical English due to negative interference from the Latin language?

There may be instances of unfavourable pronunciation interference in the field of medical English due to interference from the Latin language. Since Latin is the foundation for a substantial number of medical terminologies, students can employ Latin pronunciation conventions (acquired in a Slovak environment) when pronouncing English terms, which can result in pronunciation errors. Latin is taught as a dead language for professional communication in the medical sciences, with a focus on written communication. Individual lexical units of specialised vocabulary or professional terminology are adapted to the spoken language in which they are employed. Students may adapt Latin terms to Slovak pronunciation, believing they are adapting to the international Latin pronunciation, if they are unaware of this. Students should demonstrate this phenomenon by emphasising the correct pronunciation of lexical units such as:

Tab. 2: Examples of IPA transcription of Latin lexemes in English and Slovak

Latin Lexeme	IPA Pronunciation (RP)	IPA Transcription (Slovak)
in vitro	/,In 'vi:.trəʊ/	/In 'vi:.tro/
in situ	/,In 'si:tj.u:/	/,In 'si.tu/
in vivo	/,In 'vi:.vəʊ/	/,In 'vi:.vo/
interim	/'In.tər.Im/	/'In.tər.im/
medulla oblongata	/me.dʌl.ə ɒb.lɒŋ'ɡɑ:.tə/	/mɛ'dul.a ɔb.lɒŋ'ga:.ta/
vice versa	/'vaɪs 'vɜ:.sə/	/'vi:tɕɛ 'vɛr.sa/

The phonetic transcription in the Cambridge Dictionary demonstrates a pronunciation that differs from what students are accustomed to hearing in their Latin medical terminology classes at medical schools.

By increasing students' awareness of the differences between Latin and English pronunciation, educators can assist them in avoiding Latin interference when pronouncing English medical terms. Students can gain a clearer comprehension of how to correctly pronounce professional medical English lexemes by emphasising particular examples and comparing the correct English pronunciation with their prior knowledge of Latin pronunciation. This awareness will ultimately contribute to improved medical field communication.

5. How can the implementation of the IPA in teaching English for specific purposes to international students of medicine improve their pronunciation of medical terms?

The use of the International Phonetic Alphabet (IPA) in teaching English for specific purposes to international medical students can substantially enhance their pronunciation of medical terms. By providing a standard system for representing sounds, the International Phonetic Alphabet (IPA) assists students in identifying and practising unfamiliar phonemes, refining their word stress patterns, and ultimately enhancing their phonetic proficiency. In addition, dental students can overcome the gap between their knowledge of articulation anatomy and the pronunciation of English medical terms by using the International Phonetic Alphabet.

Several techniques can be employed to integrate IPA transcriptions into the learning process effectively. These include incorporating IPA transcriptions in educational materials, such as textbooks, presentations, and handouts, as well as using pedagogical videos that demonstrate the correct articulation of specific phonemes. Furthermore, engaging students in exercises that involve reading and writing IPA transcriptions can help reinforce their understanding and application of the phonetic symbols.

Feedback from the students in this study suggests that these techniques can be beneficial for pronunciation improvement. For example, many participants found online dictionaries and recordings helpful in refining their pronunciation and stress patterns, emphasizing the importance of auditory input and reinforcement. Additionally, some students found reading IPA transcriptions, writing English terms, and incorporating them into presentations quite useful, while others considered them moderately useful. This variation in responses implies that learning preferences may affect the efficacy of these strategies. To maximize the impact of IPA implementation, educators should offer a choice of methods tailored to individual learning styles and preferences. By doing so, they can help students improve their pronunciation and stress patterns most effectively for each learner. Ultimately, integrating the IPA into English for specific purposes of instruction can be a powerful tool in helping medical students communicate more accurately and confidently in their professional settings.

2.6 Discussion

In the context of English language learning, particularly for non-native speakers, a common debate arises regarding the importance of intelligibility versus achieving a native-like pronunciation (Pennington & Rogerson-Revell, 2019, p. 295). While some think that it is critical to sound as natural as possible, others maintain that the major objective should be intelligibility. Intelligibility can be defined as information decoded by the receiver in the same way as it was encoded by the sender (Králová, 2011, p. 17). Vančová (2019, s. 151) summarised the results of recent studies that “*mark the paradigmatic shift of pronunciation accuracy and imitation of native-like accent into the sphere of intelligibility that accepts the speakers’ non-native accent.*” In their feedback, the students highlighted the importance of pronunciation intelligibility and emphasized the usefulness of IPA as a tool to achieve it. The IPA is still a valuable resource for students even though there are other ways to practise pronunciation, such as utilising automatic voice recognition software or listening to dictionary recordings. The systematic and thorough representation of sounds in a language provided by the IPA is one of its main features. This enables students to concentrate on the precise speech elements that may present difficulties, enabling a more focused approach to improvement.

3 Implications for the teaching practice

Based on the above study, we propose the following concrete steps to be included in ESP training for future dentists:

1. One teaching unit dedicated to IPA and the importance of correct pronunciation should be set aside at the beginning of the winter semester – during this unit students would be introduced to IPA and have the opportunity to internalize the motivation to devote time and energy to work on improving their pronunciation.
2. Other units would be modified to return cyclically to the topic of pronunciation and would integrate sections on improving pronunciation. BBC videos showing the pronunciation of sounds of English should be part of the classes.
3. IPA transcriptions should be a part of the new vocabulary in the textbooks.
4. Short IPA transcription exercises should be a part of the instruction.
5. As part of the student evaluation at the end of the summer semester, students make a presentation on a professional dental topic to their peers. As part of the presentation, the student identifies a small number of words (e.g. 5) that could cause pronunciation problems and as part of the presentation shows these key words on a separate slide with phonetic transcription and plays a recording of the correct pronunciation of the terms.

Considering different viewpoints and future endeavours to expand on the current action research, it is important to recognize that the research sample, consisting of only 11 students, is relatively limited in size to draw broadly applicable conclusions. The dentistry students were selected because they were interested in oral anatomy and it was

assumed that they would also be interested in pronunciation – which articulatory organs are used in pronunciation and what is the physiology of the pronunciation of particular sounds in English. These assumptions were confirmed, but in future, it would be beneficial to repeat the action research with a larger sample of students – for example, General Medicine students.

However, it can be clearly stated that the research has already revealed in this first phase several important points that can be implemented in the teaching of the English language at medical faculties. First of all, there is a strong demand to concentrate more on the pronunciation teaching of specific medical terms. This demand is supported by the results of student surveys, as well as the fact that new and innovative technologies are constantly being implemented to improve written language skills, such as grammar checkers. However, there has not been as much of a technological boom in correcting oral language skills.

The research findings suggest that the International Phonetic Alphabet (IPA) is a reliable and effective technique for enhancing pronunciation, which calls for greater emphasis in the instruction. The integration of the International Phonetic Alphabet (IPA) with contemporary recording methodologies has the potential to motivate learners to enhance their articulation skills and augment their self-assurance in employing the medical lexicon. Under the guidance of an educator, students can learn to employ IPA effectively and independently to refine their pronunciation. Moreover, incorporating IPA into language teaching at medical faculties can help students develop a solid understanding of articulatory processes and familiarize themselves with the physiological aspects of English pronunciation. Consequently, this can result in a heightened precision and comprehensibility of medical terminology enunciation, which is crucial for proficient communication within their prospective professions. The initial findings of this action research, despite being based on a small sample, demonstrate the potential benefits of incorporating IPA into the teaching of English for medical students. It is recommended that future research expand the sample size and include general medical students to further validate the findings and explore the broader impact of IPA implementation on pronunciation improvement in the medical field.

As a part of the implementation of the results of the action research other teachers/researchers should be involved, so pronunciation instruction can be incorporated into ESP in medical schools on a broader level. The main goals of teacher cooperation on this topic should involve:

- I. Developing well-defined criteria for pronunciation instruction and establishing distinct objectives within the ESP curriculum for medical students, ensuring that these guidelines align with broader educational goals.
- II. Initiating discussions on the significance of accurate pronunciation in medical contexts among ESP teachers in medical institutions and establishing a support system with resources for educators with varying levels of expertise.

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- III. Providing training for ESP instructors who may be unfamiliar with theoretical aspects of pronunciation that are crucial for effective medical communication.
 - IV. Offering pronunciation improvement courses to instructors who may lack confidence in their pronunciation skills, so that they can better model correct pronunciation for their students.
 - V. Organising methodological workshops that introduce ESP teachers to the most recent trends in pronunciation instruction, with a focus on meeting the requirements of learners from diverse backgrounds in the medical field.
 - VI. Developing ESP-specific instructional materials, handbooks, and online resources for use in medical institutions. The authors of these materials should consider addressing pronunciation issues that may arise from learners' native languages to ensure that the resources are effective for medical students.

Despite their command of grammar and vocabulary, many language learners struggle with pronunciation. Research indicates that pronunciation is frequently not emphasised in classrooms, possibly because of time and curriculum constraints (Pennington & RogersonRevell, 2019, p. 218). Nevertheless, proper pronunciation is essential for effective communication, especially in the medical environment. Teachers should recognise its significance, communicate it to students and emphasize pronunciation instruction in the curricula.

References

- Allegra, M. (2018). Role of phonetic alphabets for teaching pronunciation. In J. I. Liontas (Eds.), *The TESOL Encyclopaedia of English Language Teaching* (pp. 1–7). John Wiley & Sons, Inc. <https://10.1002/9781118784235>
- Arnold, E. V. (2016). *The restored pronunciation of Greek and Latin*. Wentworth Press.
- Basturkmen, H. (2010). *Developing courses in English for specific purposes*. Macmillan.
- Béřešová, J. (2013). *English language teaching in pre-service and in-service teacher training*. Typi Universitatis Tyrnaviensis.
- Béřešová, J. (2015). Authentic materials – enhancing language acquisition and cultural awareness. *Procedia – Social and Behavioral Sciences*, 192, 195–204.
- Béřešová, J. (2020). *Teacher training in ELT*. Typi Universitatis Tyrnaviensis.
- CEFR (2018). Common European Framework of Reference for Languages: Learning, teaching, assessment: Companion volume with new descriptors. *Council of Europe*. <http://www.coe.int/lang-cefr>
- Jahara, F. S. & Abdelrady, A. B. (2021). Pronunciation problems encountered by EFL learners: An empirical study. *Arab World English Journal*, 12(4), 194–212. <https://doi:10.24093/awej/vol12no4.14>

-
- International Phonetic Association (1999). *Handbook of the International Phonetic Association: a guide to the use of the International Phonetic Alphabet*. Cambridge University Press. <https://doi.org/10.1017/S0025100300000177>
- Gregorová, R. (2022). *Comparative phonetics and phonology of the English and the Slovak Language. A practical coursebook*. ŠafárikPress.
- Hankerová, K., Kováč, S. & Pavlík, R. (2022). *Dyslexia a grafémovo-fonémové vzťahy v anglickom a slovenskom jazyku*. Univerzita Komenského v Bratislave.
- Hismanoglu, M. & Hismanoglu, S. (2010). Language teachers' preferences of pronunciation teaching techniques: traditional or modern? *Procedia – Social and Behavioral Sciences*, 2(2), 983–989. <https://doi:10.1016/j.sbspro.2010.03.138>
- Howard, S. J. & Heselwood, B. C. (2002). Learning and teaching phonetic transcription for clinical purposes. *Clinical Linguistics & Phonetics*, 16(5), 371–401. <https://doi:10.1080/02699200210135893>
- Javorčíková, J. & Kováč, S. (2021). Reading of English informative texts: qualitative and quantitative parameters. *Radomskie Studia Filologiczne*, 9(1), 32–43.
- Juríková, E. (2019). Latinský jazyk a jeho postavenie vo výučbe nemedicínskych zdravotníckych odboroch na Slovensku. In: Kvapil, R. (Eds.), *Cudzie jazyky v premenách času IX* (pp. 224–230). Bratislava: EKONÓM.
- Kissová, O. (2020). Contrastive analysis in teaching English pronunciation. *SWS Journal of Social Sciences and Art*, 1, 39–65. <https://doi:10.35603/ssa2020/issue1.03>
- Koshy, V. (2005). *Action research for improving practice: a practical guide*. Thousand Oaks.
- Kováč, S. & Hankerová, K. (2022). Medical students' self-evaluation of their language competences in English. *Výuka jazykú na lekářských fakultách*, 2(1), 89–99.
- Kráľová, Z. (2011). *Slovensko-anglická zvuková interferencia*. Žilina: EDIS.
- Kráľová, Z. & Malá, E. (2018). Non-native teachers' foreign language pronunciation anxiety. *International Journal of Technology and Inclusive Education (IJTIE)*, 7(2), 1322–1330. <https://doi:10.20533/ijtie.2047.0533.2018.0161>
- Munro, M. J. & Derwing, T. M. (2015). A prospectus for pronunciation research in the 21st century: A point of view. *Journal of Second Language Pronunciation*, 1(1), 11–42. <https://doi:10.1075/jslp.1.1.01mun>
- Pavlík, R. (2000). *Phonetics and phonology of English: A theoretical introduction*. Bratislava: Univerzita Komenského.
- Pennington, M. C. & Rogerson-Revell, P. (2019). *English pronunciation teaching and research: contemporary perspectives*. Palgrave Macmillan UK. <https://doi:10.1057/978-1-137-47677-7>

-
- Rollerová, A. & Vasiľová, V. (2018). *Graeco-Latin terminology of clinical dentistry*. Univerzita Komenského v Bratislave.
- Thomson, R. I. & Derwing, T. M. (2015). The effectiveness of L2 pronunciation instruction: A narrative review. *Applied Linguistics*, 36(3), 326–344. <https://doi.org/10.1093/applin/amu076>
- Vančová, H. (2016). The pronunciation mistakes of Slovak learners of English. Educational alternatives. *Journal of International Scientific Publications*, 14, 264–272.
- Vančová, H. (2019). Current issues in pronunciation teaching to non-native learners of English. *Journal of Language and Cultural Education*, 7(2), 140–155. <https://doi.org/10.2478/jolace-2019-0015>
- Vančová, H. (2020). *Pronunciation practices in EFL teaching and learning*. University of Hradec Králové, Gaudeamus Publishing House.
- Warchoń, A. (2020). Teaching English pronunciation to ESP learners: basic views and recommendations. *Roczniki Humanistyczne*, 68(10), 155–165. <https://doi:10.18290/rh206810-12>

Soft-skills training within English for Specific Purposes courses

Denisa Šulovská

Introduction

In today's competitive job market, employers often complain that candidates lack suitable employability skills and point out that there is a skills gap between academia and the industry. What employers mean is that candidates just leaving tertiary-level education often have an unsatisfactory level of analytical, interpersonal and communication skills. The graduates may have a sufficient grasp of hard skills - skills defined by a specific, teachable ability that can be measured, such as the content area knowledge and expertise, but they lack a range of other competencies. These competences, referred to as soft skills are typically outside the curriculum and are rarely assessed. To fulfil employers' and societal needs, it is important to equip students in tertiary education with those skills that will enable them to cope with the requirements of the working environment. This means that along with academic or subject-specific, technical knowledge universities should also provide soft skills training which should aid students in the working environment in the global context (Radovanović & Mitrović, 2022).

Although the importance of soft skills in the workplace has been acknowledged for many years, they are typically not at the forefront of the curriculum. University education in general still tends to focus on measurable hard skills. Yet many soft skills, such as the ability to cooperate, communicate and solve problems determine how successful a graduate will be in the working environment.

A complete list of what precisely soft skills are seems to be elusive. Various authors list different skills and variously group them (see Nieragden, 2000; Shakir, 2009; Schulz, 2008; Neally, 2005; Ismaili, Bajrami & Hasani, 2022) using a wide definition. According to them, soft skills encompass "nontechnical and interpersonal competencies" (Ismaili, Bajrami, & Hasani, 2022, p. 46). Hajrullai, Ejupi & Radosavlevikj (2022) consider soft skills to be essential 21st-century skills. While it may not be possible to provide a complete list of soft skills, they can be divided into three categories (Radovanović & Mitrović, 2022):

1. Cognitive skills – such as decision-making, critical thinking and problem solving
2. Interpersonal Skills – including team work, conflict management, empathy, verbal communication, etc.

3. Workplace Skills – for example, adaptability and flexibility, time-management, presentation skills and information skills.

Soft skills will directly influence our success in the workplace, as most of us work in teams (which are often international). Employers have been emphasising the importance of soft skills for some time, and universities have only slowly begun to realise this. Yet it is possible to design activities that train the students’ ability to relate to and interact with other people, encompassing communication, teamwork, time management, problem solving, leadership, organisational effectiveness, goal setting, flexibility, work ethic, patience, listening, creativity, critical thinking and many others, and to do this in a university setting.

Incorporating soft skills in ESP classes

How can we incorporate soft skills into the university curriculum? One option would be a separate university course with the development of soft skills as its primary objective. However, like Tevdovska (2015), I believe that it would be far more beneficial to include soft skills training as an integral part of other courses. Yet many university courses have a syllabus so packed with content that it does not allow the addition of anything more, and if it does, frequently there is no sufficient time to devote to soft skills development. This is where the benefit of foreign language courses can become apparent.

Foreign language courses in general have a lot of potential for the development of soft skills (Klets et al., 2022) as successful communication, albeit in a foreign language, is its primary goal. Foreign language teaching possesses many tools, approaches, and teaching methods that can be applied in activities aimed at developing soft skills (Medvedeva & Rubtsova, 2021).

Integrating soft skills training within courses in English for Specific Purposes has, compared to courses in General English, an added benefit as ESP courses can be tailored towards intensive practising of soft skills within the field of study of students. The ESP classroom can thus simulate “socio-cultural situations, in which students learn to solve specific practical, research, organizational and communicative tasks, thereby gaining personal experience of self-determination and self-realization“ (Medvedeva & Rubtsova, 2021, p. 2-3).

In order to successfully integrate soft skills training within the ESP course, several questions need to be addressed first, namely:

1. How to incorporate soft skills training into individual ESP classes in such a way that they are meaningful both from the point of view of language training and the training of soft skills?
2. Should the teacher assess (and how) students’ competence in soft skills?
3. How to make sure the students “adequately appreciate the value of soft skills and make deliberate efforts to acquire them”? (Majid et al., 2012, p. 1036)

Regarding the first question, it is best to combine soft-skills training activities with language practice. This may involve pre-teaching some vocabulary and phrases (such as making suggestions, accepting/refusing, giving counterproposals, etc.). Before progressing to soft-skills training tasks, the topic, around which an activity is designed and which is anchored within the students' field of study, can be introduced through various written and spoken texts (audio and video recordings). These provide the basis for comprehension-type exercises and vocabulary and grammar practice students are familiar with from traditional foreign language courses.

Assessing soft skills competence is tricky. Admittedly, "the majority of soft skills cannot be assessed with summative assessment methods and depend on subjective evaluation" (Tevdovska, 2015, p. 98). If the decision is made to assess students on their soft skills competence, a transition period is recommended. Assessment may initially be done through classroom discussions and feedback, rather than a grade. The progression to an assessment through a grade might not be desirable at all, but if it is essential, it would be better not to assess it separately but as a part of the total grade for a given activity.

The third question, in particular, can determine how successful soft-skills training will be overall. Students may join ESP classes with a certain goal of "improving their language skills" through consistent work on grammar or vocabulary and may therefore view some tasks as a waste of time if not aware of their purpose and importance. We believe that it is helpful to devote a few moments of classroom time and explain to students what soft skills are, how desirable they are from the perspective of employers and in turn, how useful they can be in the students' professional career. Students should be aware of the fact that some activities have been incorporated in ESP classes precisely with soft skills training and development in mind with English being the medium of communication throughout the whole process.

Activities aimed at developing soft skills within ESP classes

Soft skills training has already been successfully embedded within ESP courses aimed at many disciplines, for example, Legal English courses (Hradilová, 2018), English for management (Majid et al., 2012) and English for engineering (Klets et al., 2022).

The focus on particular soft skills will generally vary with the discipline and the future professional career of students (for example, Legal English students may benefit from the skill of negotiating in English, management students may appreciate the development of communication skills and leadership skills, while students of general academic English courses might work on their ability to cope with criticism (see Hradilová, 2018; Majid, 2012; and Tevdovska, 2015, respectively).

Many activities can be employed in soft skills training. Tevdovska (2012, p. 103) lists the following possible ways of embedding soft skills in EFL classrooms:

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1. Task-based and problem-solving activities
 2. Group work involving discussions and debates
 3. Delivering oral and poster presentations
 4. Role plays and dialogues
 5. Writing

However, it needs to be said that while the classification above hints at a neat division, most soft skills training activities overlap and may be seamlessly combined. For example, task-based and problem-solving activities related to the students' field of study and future professional careers will naturally involve group discussions and debates and may result in the preparation and delivery of an oral presentation or working on a written document.

For the majority of activities, students will typically work in a group and are assigned roles by the teacher or assign roles to each other independently, study the theoretical material on the topic, discuss and develop ways to solve the proposed problem, choose a solution, and ultimately present it. The final result is the product of group cooperation and clearly shows how (un-)successfully the group members were able to cooperate.

As mentioned above, the focus on particular soft skills will naturally be connected to the students' field of study and this in turn will influence the types of activities selected for an ESP course. For example, while Medvedeva & Rubtsova (2021) found case studies, problem-based learning and essay writing the most effective productive technologies for the development of soft skills in English for engineering, these may not be suited for students of other disciplines, who may find role-playing games, simulations, the project method, various written tasks related to their future profession, gamification, storytelling, situational and collaborative learning more useful. To name just one example, role-play in particular can be "one of the activities that can facilitate speaking" in fields such as law, medicine, and political science, etc. (Yuniarti & Riszky Ramadhan, 2020, p. 657).

Soft skills training activities - examples

In this section, I will briefly describe some activities employed in purposeful and systematic work on the formation of various soft skills in four different ESP groups at the Faculty of Arts, Comenius University – ESP for political scientists, ESP for archaeology, ESP for history students and ESP for philosophers.

The activities used in our soft skills training are typically a combination of task-based and problem-solving activities, group work involving discussions and debates, preparing/delivering oral presentations, role play and writing and are largely determined by the discipline itself and the needs of the students.

Materials needed for individual activities will vary, too. Most frequently, soft skills training embedded in ESP courses begins after some preparatory language work – typically based on an introductory text or a video. This work may involve reading/listening

comprehension, vocabulary and grammar practice, etc. Subsequently, students will work in pairs or groups of various sizes. Depending on the activity, they may be given additional materials to work with or be encouraged to research the topic on their mobile phones during the lesson. They may also do their research or continue researching after the lesson. Sometimes the task will require students to change groups after completing some steps.

The time limit for each activity will also vary. Some activities may only require 15 minutes, others may take several sessions.

Four sample activities used in our ESP courses, aimed at different ESP groups and focusing on different soft skills are described below. They are meant to serve as a source of inspiration for English teachers who would like to incorporate soft skills training within their ESP courses and who are seeking ideas to help them design activities for them.

History: Interpretation of historical documents and taking a position (answering a question)

The study of history is sometimes seen as a mere outlining of facts, events and dates. However, it is the interpretation (whether objective or subjective) of these events that is equally important. In this activity, students are invited to interpret various historical documents and come up with an answer to a question posed to them. Students work only with the documents given to them by the teacher and do not need to conduct any additional research on their own.

The topic is introduced with the help of a video (an extract from a documentary film) and an introductory text – which offers the background to the topic and vocabulary work – in the example described here, The Mongol Empire and its legacy. The Mongol Empire tends to have negative connotations in the minds of Slovak students due to the cultural legacy well preserved in our folk literature. Following preparatory language-oriented work with the video and text, students are divided into several groups. Within each group, they are given a set of documents to explore (extracts from various historical documents, such as notes of Friar John of Plano Carpini - the first visitor to the Mongol homeland, a map of the Mongol Empire during its various stages, a picture from a Persian manuscript, etc.) which they analyse. The analysis of the documents, interpretation and discussion are all aimed at answering the following question: Placing the positives and negatives of the Mongol Empire on the balance scale, which way does it tip?

Critical thinking, verbal communication, empathy, and conflict management are at the forefront when each group is preparing a concise answer based on their interpretation of the documents. Each group's answer is then summarised by one member of the group and presented for consideration in front of the whole class so that the answers – and different interpretations of the same historical documents – can be compared and discussed. The activity can be modified by giving different sets of documents to different groups and observing if, how and why groups arrive at their particular answers.

Archaeology: Completing a task under a time limit

This activity mimics the often-hectic working environment, when there is simply not enough time to thoroughly research and finish a task to complete satisfaction. In this case, it is very important to be able to prioritise important steps, drop those that are not as essential, and, above all, divide the workload in order to complete the task within the time limit given. The procedure is very simple:

1. Students are divided into groups and informed of the time limit for the task. They are given a set of questions to examine and find answers to. In the case described here, the questions are concerned with the physiology of several ancient, extinct homo species – a topic that has, to some extent, been already addressed during the lesson through work on a text and a video.
2. When the time limit is up, they are asked to use their subject-specific knowledge and the information they gathered to prepare 3 slides that could be used in a presentation on the physiology of ancient homo species and again given a time limit. They are NOT asked to prepare a complete presentation or to present, only to prepare three individual slides.

Personal experience shows us that even though students know of the time limit in advance, they tend to approach the task as a group. Role division to make it possible to achieve the goal satisfactorily does not occur to them. As a result, most groups invariably fail the first time this type of activity is attempted, but it is a lesson well learned. A follow-up discussion after this activity allows us to identify the problem areas and help them do significantly better next time this type of activity is attempted – and the importance of soft skills such as role division, leadership, delegating tasks, time management, prioritising, etc. becomes very apparent.

Philosophy: Summarise, entertain, challenge

This activity (called Summarise, Entertain, Challenge) was borrowed and adapted from Jacquart (n.d.). In contrast to the activities described above, the end product of which is either delivered orally or is a combination of visuals and short writing in the form of PowerPoint slides, the end product in this case is an extended piece of writing (2-3 pages) - an essay. The writing needs of philosophy students are different from those of students of other disciplines at the Faculty of Arts. Most philosophy papers the students write are reasoned defences of a thesis, which means the writer needs to convince the reader to accept or reject a thesis using the method of rational persuasion. This activity recreates the steps an individual takes when they ponder an argument and write a philosophy paper but does so in a way that allows for soft skills training, too (employing skills such as critical thinking, creativity, verbal communication, time management, teamwork, flexibility, conflict management, etc.).

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1. Students read a philosophical text, where a philosopher explains his position on an issue (controversial topics often work best).
 2. Then they are divided into three groups and each group is assigned a different task.
 3. The first group needs to concisely summarise the author's position based on the text.
 4. The second group will entertain, i.e., support the author's argument. The students need to provide a strong account for the position, employing critical thinking and creativity that perhaps go against their judgement and persuasion, listing cases in which the author is correct.
 5. Challenge – the task of the third group is to critique the position of the author, even if they agree with him, providing evidence to the contrary of the author's position.
 6. The final stage involves writing the philosophy paper. Students now form several groups of three, with one student from each of the previous Summarise, Entertain, Challenge groups. Together they prepare and write a philosophy paper – a philosophical essay, following its typical format:
 - (a) Introduction
 - (b) Definitions
 - (c) Argument summary
 - (d) Defence of the argument
 - (e) Objections
 - (f) Conclusion.

Political science: Climate change negotiations

This task is the culmination of two semesters of work on conducting simulated negotiations on various topics relevant to the world of politics. At this stage, students are already familiar both with the negotiation procedure and useful negotiation phrases and have experience with researching their role and preparing for the negotiation. The activity described here is the longest of the four and can, depending on factors such as the size of the group, how much research is done in class, etc. involve two or three 90-minute sessions.

As with many other tasks or problem-based activities, it begins with an introductory text – background to the COP 27 (Climate Change Conference) meeting in 2022. As usual, the purpose of the introductory text is twofold: 1) it introduces the topic and 2) serves as the basis for language practice, mainly vocabulary work, with tasks specifically designed for this purpose. After this stage, the activity involves the following steps:

1. Students are assigned a role country and given a role card
2. Individually they research the position of their assigned country adding more insight to the position described on their role card
3. Individually they prepare a written position paper outlining the position of their role country – the basis of their preparation for the negotiation

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4. As a group, they prepare the agenda for the simulated negotiation and assign each other roles, such as selecting the chair of the meeting, etc.
 5. They conduct the negotiations (being cooperative while defending the interests of their role country)
 6. They (do not) formalise a deal.

It is apparent that this activity involves the practice of a whole range of cognitive, interpersonal and workplace skills that contribute to the completion of the task. The benefits of this activity may be enhanced in a follow-up discussion devoted to the analysis of the steps the students have taken throughout the whole process.

Perceptions of soft skills training by students

As mentioned at the beginning of this paper, students must be aware of the purpose of each activity, including the fact that the activity is part of soft skills training, as this awareness enhances their learning experience.

For the teacher involved in the training, it will soon be apparent that with each additional activity, students become more creative and more confident in approaching the task. Their proficiency in handling the task at hand increases – their time management improves, and they become more experienced in delegating tasks, role division and accepting responsibility for their role. They research the problem more thoroughly and examine it from several aspects. Their ability to speak coherently in front of an audience improves as well (and this is something that the COVID-affected generation of students seems to have more problems with than students before them and needs to adjust to again).

But how do the students themselves perceive the soft-skills activities embedded within their ESP course? In order to find out, we carried out a small-scale survey among 57 1st year students (students of political science, history, archaeology, philosophy and religious studies).

Overall, the answers indicate that students appreciate soft-skills training (see Table 1). Students feel the activities enhance not only their communicative skills (the domain of any foreign language course), but also improve their cognitive skills, such as problem solving and critical thinking, enabling them to analyse data and draw conclusions, and support their ability to work in different roles within a team (workplace skills).

Interestingly, some students commented on the fact that soft skills training naturally transferred into their personal lives and overall had a positive impact on their lives (respondents most frequently mentioned improved communication skills, creativity, critical thinking, time management, ability to research a topic, teamwork and empathy).

Survey results also indicate that students generally appreciate teamwork and working with others. The majority of our respondents (86%) value learning from each other (learning “how to”... or “how not to”.... do things from each other, either directly or

through observation) and enjoy the work and discussions that lead to the completion of the task (95%).

Tab. 1: Students' perception of soft skills training

Soft skills training activities enhanced my:	
Communication skills	97%
Problem solving	95%
Critical thinking	95%
Teamwork	90%
Time management	86%
Creative problem solving	78%
Negotiation skills	74%
Leadership skills	48%
Persuasion skills	42%
Empathy	39%

Respondents also claim that through soft skills training activities they learned how to divide and share the work load (82%), lead the team (43%) and bear responsibility for their role (100%). In other words, the activities contributed to the development of their workplace skills.

Overall, our respondents (the whole sample) consider soft-skills training activities to be a helpful learning tool that connects English (development of vocabulary and communicative competence) with the discipline they are studying (the connection between foreign language, their field of study and future professional career). The activities embedding soft skills development within ESP classes generally make them feel excited, interested and motivated to participate (96%, 92% and 82% respectively). In addition to the benefits mentioned above, it also appears that soft skills training strengthens the relationship between students and creates a positive working environment, thus increasing the effectiveness of our teaching methods.

Despite all the positives mentioned above, it needs to be said that soft skills training within the ESP environment does encounter some problems as well. The one that I believe deserves the most attention is the lack of ability or willingness to participate, which can be observed in some students. According to Ismaili et al. (2022), it is especially those students “who lack strong soft skills.... that will find it difficult to participate fully in class activities”. These students may claim that they are not learning anything new and may even complain about wasting time. Ironically, this is true both for more and less proficient English language speakers. In this situation, we have found it useful to remind students again that soft skills training activities are preparing them for the working environment.

Very few students will go on to work as isolated individuals – most will be working as part of a team and a good grasp of soft skills is essential for the individual to succeed. In ESP classes, the English language serves as a medium in soft skills activities, mimicking the fact that work teams are often international, with English being the communication language. What employers are looking for in graduates are strong communication skills, the ability to solve problems, critical and creative thinking, the ability to work both independently and also in a group, good digital competences, time management skills, etc. By practicing and enhancing these skills students are working on improving their employability.

Conclusion

In conclusion, let us reiterate that with proper consideration embedding soft skills training within ESP classes can bring a lot of benefits. Besides improving the students' communication skills both in the foreign language and in general, it will also have a positive impact on their cognitive, interpersonal and workplace skills, and will enhance their learning experience in the ESP classroom.

References

- Chamorro-Premuzic, T., Arteché, A., Bremner, A. J., Greven, C. & Furnham, A. (2010). Soft skills in higher education: importance and improvement ratings as a function of individual differences and academic performance. *Educational Psychology*, 30(2), 221-241.
- Hajrullai, H., Ejupi, S., Radosavlevikj, N. (2022). Implementing 21st-century skills in EFL, and ESL curricula in higher education institutions. *In the Classroom and Beyond: Teaching and Learning in ESP Higher Education*, 37-45.
- Hradilová, A. (2018). Soft-skill based syllabus in legal English courses. *Journal of Teaching English for Specific and Academic Purposes*, 6(2), 235-243.
- Ismaili, M., Bajrami, L. & Hasani, S. (2022). Soft skill development as part of an ESP course for computer science students. *10th Austrian UAS Language Instructors' Conference In the Classroom and Beyond: Teaching and Learning in ESP Higher Education Conference proceedings*. Competence Center for Business English, 46-49.
- Jacquart, M. (n.d.) *Philosophy active learning activities*. <http://melissajacquart.com/teaching/resources-for-instructors/philosophy-active-learning-activities/>
- Klets, T., Korenetskaya, I., Kuzmichenko, A., Vodneva, S. & Matsevich, S. (2022). Soft skills as a component of foreign language training of engineering students. In Z. Anikina, (Eds.), *Integration of engineering education and the humanities: global intercultural perspectives* (pp. 278-286). Springer, Cham.

-
- Majid S., Liming, Z., Tong, S., Raihana, S. (2012). Importance of soft skills for education and career success. *International Journal for Cross-Disciplinary Subjects in Education*, Special Issue, 2(2).
- Medvedeva, O.D., Rubtsova, A. V. (2021). Productive method as the basis for soft skills development in engineering foreign language education. *Education Sciences*, 11(6).
- Nealy, C. (2005). Integrating soft skills through active learning in the management classroom. *Journal of College Teaching & Learning*, 2(4), 1-6.
- Nieragden, G. (2000). The soft skills of Business English. *ELT Newsletter*. <http://www.eltnewsletter.com/back/September2000/art282000>
- Radovanović, A.M., Mitrović, A.B. (2022). Education for employability in the health tourism industry: A contribution of English language courses to soft skills development. *Zbornik radova Filozofskog fakulteta u Pristini*, 52(3), 87.
- Schulz, B. (2008). The importance of soft skills: Education beyond academic knowledge. *Journal of Language & Communication*, 2, 146-154.
- Shakir, R. (2009). Soft skills at the Malaysian institutes of higher learning. *Asia Pacific Education Review*, 10, 309-315.
- Tevdovska, E. (2015). Integrating soft skills in higher education and the EFL classroom: *Knowledge beyond language learning*. *SEEU Review*. 11. 10.1515/seeur-2015-0031.
- Yuniarti & Riszky Ramadhan. (2020). West Kalimantan folktale as a model of speaking performance in enhancing students' speaking and soft skills. *Project - Professional Journal of English Education*, 3(6).

Innovative methods in teaching Latin medical terminology

Lucia Lauková, Linda Vasiřová, & Tomáš Hamar

Introduction

In the ever-evolving landscape of medical education, adapting modern teaching methods to meet the needs of students of the so-called Generation Z becomes imperative. This paper aims to present an innovative academic textbook created for the subject Latin Medical Terminology for 1st-year students who study general medicine at the Medical Faculty of the Comenius University in Bratislava, Slovakia. The pilot project testing the upcoming textbook took place throughout the academic year 2022/2023 with a sample of approximately 90 students, and we would like to present the results of this project.

Teaching the subject of Latin Medical Terminology in the English study program of General Medicine has been facing several challenges in recent academic years. The diversity of native languages and cultures among international students, as well as significant changes in the cognitive processes of the current generation, are reshaping the requirements for the effectiveness of didactic methods and the form of educational aids. The textbooks used so far have not been adapted to the needs of the target group and have been written in a traditional linguistic way, which is rather suitable for philological students, but does not take into account the way of thinking, nor the real future needs of health care professionals. Medical and science students are largely characterised by a different way of thinking than students in the humanities or cultural studies. Years of teaching experience have shown that unnecessary philological content confuses, overloads, frustrates, and thus demotivates medical students. Furthermore, our students learn Latin and Greek medical terminology via English as a medium of instruction, and they build a diverse group, as they come from different countries and cultural backgrounds. The portion of the philological and linguistic content commonly used in teaching practices is counterproductive for many international students, making it difficult for them to grasp the principles of anatomical nomenclature and clinical terminology. Some traditional teaching methods that are highly relevant for teaching the Latin language in philological studies have proven to be ineffective for future medical professionals, as well as the organization of the curriculum, particularly the imbalance in

the difficulty between the winter and summer semesters. These factors have a negative impact on the quality of the teaching process and study outcomes, subsequently affecting students' ability to effectively use medical terms in later studies and practice. Therefore, we strongly felt the need for the *rethinking of our understanding of teaching* (Richards & Burns, 2012, p. 13). The mentioned issues have also shown us the significance of using modern teaching approaches, methods and techniques (cf. Pokrivčáková, 2013b, p. 9) tailored to the requirements of Generation Z students studying medical sciences. The proposed concept of a new textbook is an attempt to eliminate certain negative factors, to reflect the changing situation of students, and at the same time meet the specific needs of non-linguist international students. This brings a new organization of the thematic curriculum, a radical simplification of linguistic content, and teaching methods focused on experiential learning and thorough consolidation of the material during the teaching process.

This paper explores the implementation of modern didactic approaches used in the teaching of modern languages in the traditionally oriented subject of Latin Medical Terminology. First, we will introduce the motivation behind our endeavour, our goals and our vision. We will also outline the specific target group for whom the textbook is designed. Next, we will discuss the methodology employed throughout the textbook development process, highlighting the systematic approach used. Additionally, we will provide insights into the composition of the textbook, including its content organization, language clarity, and visual presentation. Samples from the textbook will be provided to illustrate its structure and pedagogical approach. We will share the results of our evaluation after the two-semester teaching experiment, assessing the effectiveness of the textbook in meeting its goals. Finally, we will incorporate feedback from our students, we will present conclusions and outline future prospects.

2 Motivation

The mastery of medical terminology is a crucial competence for students in healthcare and medical fields. It is impossible to acquire a proper understanding of medical terminology without comprehending the principles of Latin morphology, word formation, and the specific structure of medical terms. The significance of Latin is recognized by the contemporary medical community. Latin is the internationally codified form of anatomical nomenclature (*Terminologia Anatomica*, 2nd Edition 2019 – the international standard of anatomical terminology published by the Federative International Programme for Anatomical Terminology, a program of the International Federation of Associations of Anatomists), and a Latin version of the International Classification of Diseases (ICD 11) is being prepared for publication. This classification

serves as a database of medical diagnoses used for classification, coding, and statistical purposes, and is mandatory in healthcare systems worldwide. A team of scholars from our Institute enjoyed the privilege of translating the 11th edition of ICD from English into Slovak, and we created a complete database of all diagnoses also in Latin. Thus, after negotiations with the WHO, the Latin version will be a firm part of the online database used worldwide. The intense work on the translation of ICD 11 provided us with many insights and was one of the crucial factors in creating the new textbook, based on real medical sources.

Since 1991, a separate language teaching department called the Institute of Foreign Languages at the Faculty of Medicine, Comenius University has been established, which was renamed to the Institute of Medical Terminology and Foreign Languages at the Faculty of Medicine, Comenius University starting from September 1, 2022. The recent name change is associated with the gradual transformation of the status, content, and teaching methods within the field of terminology. The Institute is currently focused on research and teaching of medical terminology, including the original Graeco-Latin and Slovak terminology for Slovak and international students, as well as English and German terminology. Latin terminology is taught in the Slovak programs of General Medicine and Dentistry, as well as in the English program of General Medicine and Dentistry, where English serves as the medium of instruction. The teaching of medical terminology in the Slovak context, including the Faculty of Medicine, at Comenius University, is constantly evolving. Recently, two main tendencies have been observed:

1. Simplification of linguistic content in favour of a pragmatic approach to the curriculum. For example, in the inflectional system, dative and vocative cases, which are not present in terminology, are completely omitted in medical faculties, while in secondary healthcare schools, only the nominative and genitive cases are taught (Pavlíáková, 2020, p. 15).

2. Efforts to update the lexicology (eponymous terms were previously replaced by motivated, i.e., systematic terms, but recently, eponymous terms are again acceptable), along with the incorporation of current tendencies in pharmacology (for instance, the teaching of writing a paper prescription is being modified due to the rise of simplified electronic prescriptions).

We would like to emphasize that we deeply appreciate the work of our colleagues and are grateful for their efforts because even though the traditional philological approach is not ideal for medical students, their material already represents significant progress compared to the content taught twenty years ago. However, traditional Latin teaching methods, such as heavy memorizing of paradigms and vocabulary, reading, and

translation, still prevail. Here are some of the main issues related to the traditional philological approach

2. 1 Demanding linguistic content

The initial teaching hours, where future doctors encounter abstract concepts of grammar and syntax, can be demotivating for students with non-Indo-European native languages and without prior experience in Latin or linguistics in general. Traditional textbooks lack a systematic introduction to the structure of medical terms, an explanation of the significance of noun-adjective-agreement, and the order of attributes. Latin morphology begins right within the first lesson. Despite the reduced content (four cases, focusing on nominal declension), complete paradigms of nouns and adjectives are taught, including exceptions, which have proven to be particularly confusing. Moreover, from the very beginning students are confronted with complex grammar constructions which do not even occur in medical terminology, and thus can be considered fictional. E.g. *under the muscles of the back/sub musculis dorsi*. Such a phrase is practically unusable, as prepositions are only used in clinical terminology. Anatomical terms are limited to the nominative and genitive cases, and therefore, there is no need to confuse students with the system of prepositions (Latin medical prepositions are mainly connected to accusative and ablative cases) at the beginning of the course.

Additionally, this teaching method does not provide sufficient practice or reinforcement of new knowledge in subsequent lessons, but instead follows a linear progression. For students without linguistic predispositions and motivation, the systematic accumulation of new information, which may not always be utilized in practice, becomes burdensome. In the best-case scenario, students memorize what they can but struggle to creatively apply their knowledge or see connections with other subjects. In the worst-case scenario, they give up after the first lesson. Yearly assessments have shown that a large portion of students only master the first declension (e.g., *vena*, ae, f.), while the success rate significantly decreases for the third declension (there are five declension types in Latin altogether). Simultaneously, the traditional approach to learning adjectives exacerbates problems (e.g., the ablative singular of adjectives in the third declension, which is not commonly used in practice and is more challenging compared to the ablative of the comparative degree).

2. 2 Imbalanced course curriculum

One of the problems encountered by teachers following the traditional approach is the imbalance in the difficulty level between the winter and summer semesters. In the winter semester, the focus is on the morphology of Latin, Latin and Greek declension patterns, and exceptions, which may be trivial for some students and extremely challenging for others. In the summer semester, the attention is primarily directed

towards Graeco-Latin word formation, but the principles are presented only in a very general manner. The predominant approach involves memorizing isolated affixes and affixoids, which are already familiar to most students from their preparation for studies and everyday vocabulary (as they are internationally recognized morphemes).

2.3 Limited applicability of the curriculum

As already mentioned, the traditional textbook, despite its apparent focus on medical vocabulary and terminology, includes vocabulary and presents grammatical features and forms that are not found in real medical terminology and will never be used by future doctors. In addition to the codified anatomical terms, artificially constructed phrases (such as *sub musculis dorsi, methodus nova, sub spinam scapulae, in plicis gastricis, in arteria profunda linguae*, etc.) are also found in the traditional textbook, aiming to practice a specific linguistic feature or highlight an exception. Exercises for artificially creating plurals are often used, even though plurals have a precisely defined function in real terminology and are not often used in other cases. On the other hand, clinical terms are limited to basic types of diagnoses and do not reflect recent ICD standards. Moreover, the traditional textbook includes a significant amount of pharmaceutical and pharmacognostic lexicon (prescription phrases and medicinal plants) as an integral part of the lessons, which foreign students, unlike Slovak students, will only marginally, if at all, utilize in practice (the subject of Pharmacology in later studies operates to a large extent with a different terminological apparatus).

2.4 Insufficient use of the mediation language as a means of enhancing the ease of learning

Teaching a foreign language through another mediation language, when the second language is also foreign to both the instructor and the students, always represents a challenge. This is particularly true in the case of teaching Latin medical terminology. The negative impacts of the mediation language include:

1. Different concepts of Latin and English as inflected and analytical languages, which require a higher level of explanation of linguistic terms and concepts. This process involves the individual native languages of students, ranging from Japanese to Semitic and Germanic languages, and varying levels of English proficiency. The challenge for the new approach is to utilize the connections between diverse languages to facilitate explanations in different situations.
2. Potential issues can arise with linguistic terminology itself. Students must be familiar with or acquire terms based on English linguistics, which is often not the case.
3. As teaching takes place in the Slovak environment, the new concept strives to adapt the explanation of certain aspects, such as the topic of medical prescriptions, which have different normative forms in different countries.

On the other hand, a fundamental factor that facilitates teaching is the fact that medical terminology is largely international, and in English, most terms either originate from Latin terms or are directly identical to them. However, it should be noted that some English medical terms (both anatomical and clinical) are part of everyday language vocabulary.

The content of the Latin Medical Terminology course builds upon the material covered in the Anatomy course, where students memorize the codified anatomical nomenclature in both Latin and English. It also relates to subsequent courses such as Physiology, Pathological Physiology, and specialized clinical subjects, where students encounter the juxtaposition of dominant English terminology and Graeco-Latin terminology. This presents a great potential for utilizing these interlingual factors in terminology instruction. In the traditional textbook-based approach, these interlingual factors were largely underutilized, as the textbook was primarily a translation of a condensed Slovak version. In contrast, these factors have a continuous influence on teaching according to the proposed concept.

2. 5 Poor integration within heterogeneous study groups

For ethnically and linguistically diverse study groups, the thematic plan and course progression based on the traditional textbook have proven to be potentially challenging. Within a single group, the following student profiles can be observed:

a) Students who have received several years of Latin classes at a grammar school in Austria or Germany. They are already familiar with Latin declension, and in the first semester, they learn very little new information. They may be unmotivated, bored, express dissatisfaction, or disrupt the teaching process.

b) Slovak students studying in foreign programs but educated in the Slovak school system, as well as students from German-speaking countries, Greece, or other Slavic cultures, who had no previous experience with Latin, fall in the middle of the spectrum. They are to some extent satisfied with the traditional teaching system.

c) Students from the Middle East and Central Asia represent the opposite end of the spectrum. After arriving in Europe, they experience culture shock, encounter racism, often struggle with the mediating language, and find Latin, as an Indo-European language with a complex declension system and numerous exceptions, extremely challenging to master.

d) Students from Japan pose the greatest challenge for teachers. In addition to cultural and linguistic differences, they face a significant language barrier. They are most commonly outsiders in the class, do not actively engage, struggle to keep up with the regular pace of instruction, and may feel inferior.

As a result, teachers face the difficult task of managing a heterogeneous group, while students experience varying levels of frustration throughout the teaching process.

2.6 Low student motivation

Student motivation in the subject of Latin Medical Terminology has been a long-standing issue, also in other European countries (Vīksne & Ābelīte, 2015, p. 133). It is influenced by several factors:

a) Firstly, the low credit allocation, which is disproportionate to the credits they earn in other core subjects in the first year, such as Anatomy, Biology, and Biophysics.

b) Another factor is the time, intellectual, and psychological demands which are characteristic of medical studies, further intensified for international students by the fact that they begin their studies in a foreign country.

c) The psychological aspect is important as well. If a student feels that they may struggle with medically oriented subjects, it can be challenging to convince them of the importance of learning medical terminology.

d) They do not always relate the clinical terminology they are being taught in the Latin course to other subjects they learn and do not see the relevance of it (Vīksne & Ābelīte, 2015, p. 135).

e) Finally, the linguistic nature and limited practical value of the subject matter, along with traditional philological teaching methods, can diminish the motivation of some students.

Pedagogues can only influence the last point. The new concept is an attempt to mitigate the impact of the first three factors and support students through creative and inclusive activities, as well as to create a positive learning atmosphere during terminology classes.

3 Goals and visions

Before composing materials for the new textbook, we had set two main goals:

1. To adapt the methodology: a) To the thinking of the target group. b) To the real needs of the target group.

a) We have achieved this by using clear and simple tables, focusing on patterns and rules, and creating medical real-life situations. The exercises are diverse and designed to bring feelings of satisfaction to students. The fun aspect is also of great importance to us. The feeling of manageability, competence, success, and relevance results in joy in both learning and teaching, keeping students motivated and helping them better retain the knowledge.

b) We teach just the essential grammar that is used in practice, avoiding fictive phrases. We decreased the use of linguistic terms to the necessary minimum or replaced them, when possible, with simple expressions (e.g. *1st declension* → *1st group, translate terms* → *create clinical phrases, etc.*).

2. Latin as a supportive subject alongside the specialized subjects.

We are aware that the priority for our students lies in specialized subjects such as anatomy, biology, chemistry, biophysics, etc. During periods of increased stress and limited time amounts, such as during test weeks and examination periods, not every student can manage their time in a way that allows them to dedicate entire days to the studies of languages. Therefore, we strive to minimize the need for self-study and memorization. We want to teach our students in a way which enables them to learn and remember at least 80% of the required content already during the teaching process, which corresponds with the concept of *economical* teaching techniques; “students should be able to reach educational objectives in as short time as possible with as little effort as possible” (Pokrivčáková, 2013b, p. 10). This should be achieved in an entertaining and lasting way. Furthermore, we aim to create possibly *authentic tasks* (Tomlinson, 2011, p. 9) for students, making them feel as if they are in a hospital rather than attending a linguistic seminar.

Content-wise, the goal of the new teaching concept is to equip our undergraduates with three fundamental practical skills that they will utilize both as students and as medical professionals:

- a) Correct usage of various types of medical terminology based on their structure and function (including forms and functions of Latin singular, plural, and adjectives with agreement and non-agreement).
- b) Correct usage of Greek and Latin affixes and affixoids.
- c) Ability to accurately analyse the word formation structure of medical terms, and detect possible mistakes, if necessary.

4 Target group

As we already mentioned in the introduction, our students are predominantly born after 1995 and belong to the so-called *Generation Z*. In general, they are characterized by their technological fluency and distinct ways of thinking. They are often referred to as “digital natives, fast decision makers, demanding instant information and communication. The brains of Generation Z are structurally different than those of earlier generations, not as a result of genetics, but as a result of the external environment and how our brains respond to such” (Cilliers, 2017, p. 190). We can only confirm this statement, as our current students are already different from those, we taught ten years ago. “Auditory learning, such as lectures and discussions, is very strongly disliked by this group, whereas interactive games, collaborative projects, advance organizers, and challenges, are appreciated” (Rothman, 2016, p. 2). “To engage in learning this generation needs fast delivery of content with complex graphics and connected activities. They are kinaesthetic, experiential, hands-on learners who prefer to learn by doing rather than being told what to do or by reading text. They require speed and instant gratification” (Rothman, 2016, p. 4). These young people present unique challenges and

opportunities in the educational realm. As medical students pursuing natural science subjects, their learning preferences, attitudes, and expectations differ from those of students in cultural studies or philology. Thus, the teaching approach must be carefully tailored to meet the needs and learning styles of these young digital natives.

From the perspective of language competencies, study conditions, and psychological, and social profiles, it is possible to characterize international students as follows:

a) Students are grouped into study groups in alphabetical order according to their surnames, resulting in linguistically, nationally, and culturally diverse groups with different learning styles and preferences.

b) There are practically no students for whom English, the language of instruction, is their native language. Different native languages lead to potential challenges in language comprehension and expression.

c) The largest proportion consists of students from German-speaking countries, among whom there is a significant number of students with languages other than German as their native language.

d) Some students from Germany and Austria have attended secondary schools with Latin classes, but many come from different types of schools where they had no exposure to Latin.

e) Additional significant groups consist of students from Greece, Spain, Poland, the Middle East (Palestine, Syria, Iran), and Japan.

f) Many students face significant difficulties with English and have had no previous experience with inflected languages.

g) On the other hand, some students have high proficiency expectations for English as a mediation language. They come with highly diverse study habits and teaching experiences, and they have no experience with the Slovak education system, making the 1st year an adaptation period for them.

h) All foreign students have to adapt to a new educational system and learning environment. Some of them come from different academic backgrounds and their experiences prior to entering the medical program differ.

i) They face potential homesickness, feelings of isolation, or challenges related to living in a foreign, multicultural environment.

j) They are predominantly utilitarian, meaning they are willing to accept primarily information they consider useful, which is related to the demanding nature of medical studies.

k) They are motivated to succeed primarily in professional subjects.

5 Textbook content and composition

The new concept aims to work exclusively with existing medical terms, and always stick to in medical context. The excerpted vast corpus of literature from the field of

medical terminology as well as actual medical databases ensure the relevance and correctness of the lexical content used at the time of the textbook's creation.

However, *what teachers and faculty administration think are the needs might not be what the learners themselves think* (Vilkancienė, 2011, p. 113). To enhance the authenticity and relevance of the content used in our materials, at the very beginning of our work, we surveyed to gather data from graduated doctors already working in the medical field. We wanted to find out which aspects of medical terminology are relevant to them, what teaching approaches are preferred and considered useful, and what challenges they face concerning medical terminology in practice. The [questionnaire](#) was sent to various medical specialists with a diverse range of medical practices. Their answers were carefully taken into consideration.

The composition and structure of the planned textbook are entirely unique.

The novelty of our approach consists in the way and order in which information is given to students. **The progression starts with the topic of word formation in clinical terminology**, which is the most easily digestible, motivating, and highly applicable content for every student of medicine. After mastering the basics of clinical terminology, the focus smoothly moves on to the principles of Latin inflexion (nominative singular and plural, genitive singular) which are necessary for proper use and understanding of anatomical terms. Another innovation is that **no paradigms are taught**, as is typical for the teaching of Latin. On the contrary, students learn according to cases which are ordered after their importance. **All necessary grammatical phenomena are taught based on rules, patterns and regularities**. Thus, plural forms of all masculine and feminine nouns are presented in one unit, and so are the rules for neuter nouns. After having practised and getting familiar with the grammatical principles needed for anatomical terms, the remaining cases accusative and ablative are taught which, on the other hand, are important for the composition of Latin diagnoses used in the ICD. The course closes with the topic of numerals, and presentation of medical prescriptions, and a few important pharmaceutical phrases and abbreviations.

New knowledge is cyclically practised in each subsequent lesson, including regular mechanical repetition to reinforce the topics already learned.

The curriculum of the subject Latin Medical Terminology based on a two-semester course looks as follows:

WINTER SEMESTER

- | |
|---|
| 1. Why do we need Latin and Greek in medicine? Difference between Latin and Greek (letters, anatomical vs. clinical terminology), crucial Latin and Greek equivalents, chart with adjective endings, gender rules for Latin nouns |
| 2. Greek roots – compound terms 1 |
| 3. Greek roots – compound terms 2 |
| 4. Greek roots – prefixes, suffixes |
| 5. Latin roots – compound terms, suffixes, prefixes |

-
6. Five groups of nouns in Latin – nominative and genitive sg., genders, word order, declensions 1, 2, 3
 7. Revision, declensions 4, 5 genitive sg.

SUMMER SEMESTER

8. Revision of the winter semester
9. Five groups of nouns in Latin – nominative and genitive pl.
10. Neuter nouns – rules, specifics, plural forms
11. Structure of anatomical terms
12. Prepositional cases: accusative/ post, ante, propter/ structure of longer diagnoses
13. Prepositional cases: ablative/ cum, sine, ex/ structure of longer diagnoses
14. Numerals/ medical prescription

6 Methodology and textbook samples

As we already stated, the methodology of the new concept is significantly focused on the way of thinking of the target group – Generation Z students of exact sciences. It is based on **principles of simplicity, repetition, schematics, and clarity, with a focus on the systematic features, patterns and regularities of the subject matter**. The textbook starts with the most important topic and also with the simplest one – with clinical terminology and the principles of word formation. Many of our colleagues object that it is necessary to start with the composition of anatomical terms, thus with Latin grammar. The new concept works with a holistic approach which consists of simultaneous acquisition of practical creation of medical terms and building of vocabulary from both branches of medical terminology – anatomical nomenclature and clinical terminology, even though the principles of structure of anatomical terms are introduced later in the course. In this manner, students reinforce their knowledge of anatomy, while being motivated to explore "real" medical terms that they will use soon. At the same time, the linguistic content is significantly reduced, and the explanation is simplified, written in accessible language and always considers the recipient. It aims to minimize philological content by replacing certain linguistic terms with non-linguistic terms. In this regard, it must be acknowledged that the explanation of many concepts is simplified to the maximum extent possible, and it would not withstand the scrutiny of a specialized linguistic discourse. However, in the traditional philological approach, when the course starts with Latin declension paradigms and complex linguistic concepts, students tend to miss the core knowledge due to information overload and grammatical confusion. Some of them even lose track, so to speak, for good. Being fully ever of the fact that the greatest motivation/*enthusiasm for doing something* (Hawthorne, 2021) is a success, we consider it of great importance to start with the simple principles of clinical word formation. This methodology:

a) Provides students with highly relevant information which all of them will use in their professional careers. Each and every one of them will be confronted with terms such as

hepatitis vs. *hepatosis*, *haematuria* vs. *uraemia*, etc. and the distinction and proper understanding of them is crucial for every healthcare professional.

b) Makes a real **integrative approach** possible. As the topic is equally new and accessible for every student, nobody feels excluded or inferior, all participants have equal chances and starting positions. This is not the case when the course starts with grammar concepts, which are known and easy to grasp for some learners, while extremely challenging for others. Such an integrative approach meets the basic principles of **holistic education** which honours each learner *as unique, inherently creative, with individual needs and abilities. This means welcoming personal differences and fostering in each student a sense of tolerance, respect, and appreciation for human diversity* (Mahmoudi, 2012, p. 183).

Fig. 1: Integration of native languages of students in the explanation process

UNIT 10 – NEUTER NOUNS

Introduction

Neuter nouns are characterized by the endings **-um** and **-on** and belong to the 2nd declension:

Latin	Greek
-um	-on

There are few surprising neuters in the 3rd declension with the endings **-us** and **-a**:

Latin	Greek
-us	-a

A. RULES FOR NEUTER NOUNS:

Neuter nouns are very easy to work with as they follow two basic rules:

- | |
|--|
| <ol style="list-style-type: none">Nominative = AccusativeNominative Plural/ Accusative Plural ends with – a |
|--|

These simple rules are extremely helpful as they apply also to Slovak and Greek language. The first rule is valid also in German.

Slovak:

1. Nom.: Toto je dobré *pivo*. Acc.: Milujem dobré *pivo*. 2. Prosim si štyri *pivá*.

Greek:

1. Nom.: Αυτό είναι το μωράκι μου. Acc.: Λατρεύω το μωράκι μου. 2. Έχω πολλά μωράκια.

German:

1. Nom.: Das ist ein hervorragendes Würstchen. Acc.: Ich verehere Curry-Würstchen.

c) As it is a simple topic, students succeed easily in the tasks and are thus “motivated to learn and explore the subject further” (conf. Pokrivčáková, 2013b, p. 10). **They gain self-confidence** and the satisfying impression that they learn a lot in the classes with good progress. With this awareness of solid core knowledge, they easily slip into the more demanding world of grammar, some of them without even noticing it.

d) The high relevance of clinical terminology is another motivation factor. They feel the **authenticity of the subject content**, which evokes real-life situations as future doctors. “The gap between school and real life” is filled (Pokrivčáková, 2013b, p. 9). The frustrating “Why are we learning this?”-aspect resulting from (in their perspective) futile memorising of paradigms falls away.

6.1 CLIL method

Content and Language Integrated Learning is, as well-known, an educational approach in which various language-supportive methodologies are used which leads to a dual-focused form of instruction where attention is given both to the language and the content (Coyle, Hood, & Marsh, 2010, p. 20; Escobar Álvarez, 2020, p. 272). Unlike bilingual or cross-curricular language teaching, CLIL offers learning language and content simultaneously (Sepešiová, 2021, p. 13). Scholars and researchers claim that CLIL is primarily the approach most successfully applicable at the secondary level (Vilkancienė, 2011, p. 112), and tertiary CLIL is the least studied level of CLIL in Slovakia (Pokrivčáková, 2013a, p. 22). Nevertheless, as in secondary education, “CLIL type teaching in higher education increases learner motivation, contributing to both cognitively more demanding content and language learning and communicative skills development” (Vilkancienė, 2011, p. 115). **CLIL has a lot to offer at the university level.** “Traditional language for specific purposes programmes can be enriched by case studies other content-based or problem-based assignments or that focus on both content and language and follow the majority of CLIL methodology principles” (Vilkancienė, 2011, p. 113).

Teaching Graeco-Latin Medical terminology to students of Medicine with diverse language backgrounds using English as the medium of instruction, **can be considered a unique form of Content and Language Integrated Learning.** In this case, the subject content is the very specific Graeco-Latin Medical terminology which is set in an authentic medical context, and the language of instruction is English. “CLIL is related to all forms of education in which subjects are learned through L2 or through two languages simultaneously” (Ball, Kelly, & Clegg, 2015, p. 1). By teaching Graeco-Latin Medical terminology via English, we provide students with an opportunity to enhance their language proficiency in English and Latin while acquiring the specialized medical vocabulary and medical content necessary for their future careers. The CLIL method proves to be an effective pedagogical approach in this context, as it not only enhances students' linguistic competence but also fosters their understanding of medical

concepts within an authentic, interdisciplinary context. This **holistic approach** aligns with the Z Generation's desire for relevance, practical application, and engaging learning experiences. This approach promotes both language acquisition and content comprehension, thus preparing students for effective communication and professional success in the medical field. In Fig. 2-4, there are several examples of CLIL exercises.

Fig. 2: Exercise for Latin prefixes combined with medical content

3. Types of injections:

a) Where are these injections given?

injectio intravenosa IV → injectio intramuscularis IM →
injectio intracutanea/ intradermalis ID →
injectio subcutanea SC →
injectio intraarterialis → injectio intracardialis →

b) When are these injections given?

IV – ID – SC – IM

1. certain antimicrobials, anticonvulsants, diuretics, steroids, analgesics →
2. allergy medications, certain antibiotics and contraceptive hormones, other hormones such as testosterone, Botox, steroids, flu shots, Comirnaty (COVID-19 vaccine, mRNA) and other vaccines, B12 injections, certain antipsychotic drugs →
3. Botox, steroids, and the tuberculosis (TB) vaccine/ also used for allergy testing →
4. insulin and other medications for diabetes, certain hormone medications such as testosterone, blood thinners, allergy medications, analgesics, arthritis medications →

Fig. 3: Exercise for Greek prefixes combined with medical content

8. Precancerous conditions. Choose the correct condition.

carcinoma in situ – atypia 2x – hyperplasia – dysplasia – metaplasia 2x

..... means that abnormal cells are dividing and increasing in number faster than normal. The cells look normal under the microscope but there are more cells than normal.

..... means that cells are slightly abnormal. Sometimes may be caused by healing or inflammation but some types are precancerous.

..... means that there has been a change to the types of cells that are normally found in this area of the body. The cells look normal but they aren't the type of cells that are normally found in that tissue or area. Most types of aren't precancerous but some are.

..... means that cells are abnormal, there are more cells than normal, the cells are growing faster than normal and they aren't arranged like normal cells.

..... is the most severe type of precancerous change. The cells are very abnormal but have not grown into nearby tissue. It is usually treated because it has a high risk of developing into cancer.

Fig. 4: Clinical terms used in medical practice. This type of exercise is inspired by our colleague László Répás from the University of Debrecen.

9. Match diagnoses with symptoms:

SPONDYLOSIS
CERVICALIS

HYDROCEPHALUS

MYOCARDITIS

macrocephalia

fatigatio

rigiditas articulationis intervertebralis

dysopia

dyspnoe

dorsalgia

incontinentia

tachycardia

fatigatio

cephalalgia chronica

oedemata

asynergia

nausea

febris

paraesthesia

dyskinesia

cephalalgia

convulsiones

arrhythmia

asynergia

thoracalgia

6.2 Variation

The developing textbook is characterized by a rich diversity of tasks. Each unit has a similar structure, the types of exercises however perpetually vary. Our digital natives are thus in expectation of what is going to come up next and do not get easily bored due to routine, insipid and predictable task typology which lacks creativity, engagement or challenge. According to Pokrivčáková, the **variety of tasks and teaching techniques** meets the requirements set on a *modern teacher* (Pokrivčáková, 2013b, p. 10). The only exceptions are exercises where students are supposed to correct the most common mistakes in medical phrases. As we consider this skill essential, systematic repetition is necessary. One of the constant features of units is found in the **gradual and controlled release of information**. Rather than overwhelming learners with a large amount of information all at once, we prefer to dose the information in more digestible portions. After each explanation of the subject matter follows the consolidation of the learned material in the form of an exercise. Before new information is given, we make sure that the previously obtained information has been trained and learned. This strategy can be viewed as a subtype of **spaced learning** which “equips the learners with the fundamentals before going on to the next chapter” (Taylor, 2022). Another constant component of every unit is regular sections such as *Easily confused*, *Peculiar terms*, or brief *etymology* digressions which provide students with practical help (e.g. *ileum* vs. *illium*, *verus* vs. *varus*, *fascia* vs. *facies*, *epidemics* vs. *pandemics*, etc.) and captivating information about selected medical terms (e.g. *miserere*, *caput medusae*, *cor athletae*, *quarantine*, *primigravida*, etc.). Examples of exercises focused on common mistakes:

Fig. 5: Regular component of the units of the 2nd semester

EXERCISE 8

Recapitulation. Correct mistakes like a pro!

vulnus lacerus lingua (2) → correct: _____
os brevis (1) → correct: _____
osses cranium (2) → correct: _____
trauma aperta (1) → correct: _____
corpus alienus auris (1) → correct: _____
gastritis acutus (1) → correct: _____
vulnus apertus oculus (2) → correct: _____
dermatosis chronicum (1) → correct: _____
coma diabetica (1) → correct: _____

Fig. 6: Feminine and neuter nouns are common causes of confusion

EXERCISE 6

STEP 1: Feminine or neuter?

trauma, pneumonia, glandula, systema, coma, soma, stoma, fossa, symptoma, fractura, asthma, fovea, rheuma, gravida, carcinoma, aneurysma, medulla, haema, tuba, vagina, mamma, aorta, exzema, apertura, vesica, adenoma, therapia

FEMININE nouns (14)	NEUTER nouns (13)

6.3 Authenticity

Authentic task or real-world task is “a task which involves learners in using language in a way that replicates its use in the real world outside the language classroom” (Tomlinson, 2011, p. 9). It is a very good way to retain new vocabulary, how to, so to speak, “somehow make the word their own”, as Jill Hadfield states (Hadfield, 1998, p. 4). Authenticity in learning goes hand in hand with **problem-based learning** which empowers students to actively construct their knowledge. When using PBL, “content knowledge is retained longer, especially when students are invested in projects, they find to be personally meaningful” (Baird, 2019, chapter 7). **The case study** is an apt example of problem-based teaching which follows the main principles of CLIL methodology defined by Mehisto, Marsh and Frigols, and can be qualified as CLIL type way of teaching. “The main principles include: authenticity, active learning, safe learning environment, scaffolding (Consultations with the teacher and colleagues, all class discussion of the case prior to assigning the tasks, vocabulary clarification and understanding are conducted before the project discussion in class.) and multiple focus. The main focus in a case study is on: 1) content understanding and analysis, 2) group work and interpersonal communication, 3) presentation and discussion skills, 4) language L2 and L3 skills” (Mehisto, Marsh, & Frigols, 2008, p. 29).

A representative for authentic, problem-based tasks in our book are exercises where students play the role of a doctor and are supposed to identify symptoms based on statements of patients or to determine a diagnosis based on a brief description of an urgent case. Also, the *correct mistakes like a pro* type of exercises can be perceived as an authentic and PBL task. It uses a **visionary motivational programme** according to Hadfield/Dörnyei which rests on the “assumption that a particularly effective way of motivating learners is to enable them to create an attractive vision of their future language self” (Hadfield & Dörnyei, 2013, p. 5). An example of a case study is a dissection report quiz. Students read a dissection report written in Latin, and based on their grammar knowledge and vocabulary, they have to answer the quiz questions. They can work in pairs

or groups and discuss the task together. It is a type of reading comprehension, and an authentic, problem-based learning situation, where they have to holistically apply everything they have learned so far. For example, in order to find out whether the patient had metastases just in one lung or in both, they have to be able to distinguish singular and plural forms. Or if they want to determine, which organ was not in acute inflammation, they have to apply their word-building knowledge; they have to know the meaning of clinical terms, such as *gastritis*, *nephritis*, etc. This type of exercise has proven to be very effective and received a very positive response because it conveys a satisfactory feeling based on the progression of the gained knowledge: just a few months ago, students started from zero Latin knowledge (the majority of them) and now they can read a highly specialized dissection report written exclusively in Latin.

Dissection report QUIZ

1. Was the deceased patient most likely male or female?

- a) male
- b) female

2. How many heart infarctions had the patient have in the past?

- a) one
- b) two
- c) none

3. Did the patient have metastases in one lung?

- a) yes
- b) no

4. Which organ was **not** in acute inflammation at time of death?

- a) stomach
- b) bronchi
- c) kidneys

5. The patient had which breast removed?

- a) the left one
- b) the right one
- c) both

6. Which organs were affected by bleeding?

- a) heart
- b) urinary organs
- c) heart and urinary organs
- d) genitals

7. What was the main cause of death?

- a) heart failure
- b) cancer
- c) malfunction of the respiratory system
- d) sepsis

8. Which kidney was inflamed?

- a) the left one
- b) the right one
- c) both

9. Did the cancer spread also into the skeletal system?

- a) yes
- b) no
- c) we don't know

Fig. 7: Example of a case study

EXERCISE 7

Correct mistakes like a pro:

Imagine yourself being an experienced medical professional. You love your job and you are paid accordingly for your expertise. There is a new colleague in the team who did not enjoy such an excellent terminological preparation as you did. Can you kindly help them with the awkward mistakes they made in the reports and medical conversations?

1. An adult male patient, age 47, with a complicated fracture of **os femur**.

correct: _____ (1)

2. A 55-year-old gentleman complaining of visible **haemuria**.

correct: _____ (1)

3. A surgical treatment due to a **carcinoma prostata**.

correct: _____ (1)

4. A suspected **cystitis acutus**.

correct: _____ (1)

5. After poorly treated **nefrolitiasis**.

correct: _____ (2)

6. Caused by a not diagnosed **hyperplasia prostata benign**.

.....

EXERCISE 7

Clinical terminology Revision. Express it in a more medical way!

1. "I've recently noticed some **blood in my urine** and now I'm struggling to wee."

→ _____

2. A 24-year-old secretary, complaining of chronic, recurrent **headaches**.

→ _____

3. Mrs Murphy, a 48-year-old woman, has presented to hospital with **jaundice**.

→ _____

4. Mrs Brown, a 70-year-old lady, arrives in A&E by ambulance on a Saturday night along with her son. He tells you she **vomited blood** earlier that evening and then collapsed.

→ _____

5. "I was walking the dog today when I suddenly felt funny, the next thing knew, **I was on the floor** and somebody passing by had called an ambulance."

→ _____

6. "This morning I was lifting a TV out of my car when I suddenly developed really awful **back pain**. It's been there ever since and I'm struggling to deal with it."

→ _____

7. Sam, a 25-year-old male, is brought in to the hospital by the police due to public concern regarding some **bizarre and distressed behaviour** in the city centre. The police say Sam will only speak of being "scared of them". He's currently curled up in a ball, in the corner of the room.

→ _____

Fig. 8: Example of an authentic and PBL task, where students are asked to help a colleague with mistakes

Fig. 9: Example of an authentic and PBL task, where students are supposed to determine a possible diagnosis

3. Match symptoms with descriptions:

The patient says:

1. I can't breathe.
2. My nose is dripping.
3. It itches me.
4. Everything is spinning.
5. I've lost my appetite.
6. It stings when I pee.
7. I have headache.
8. My skin looks yellow.
9. I feel bugs crawling under my skin.
10. I can't swallow.
11. I have a cough.
12. I feel like I'm going to throw up.
13. I'm always running to the bathroom.

The doctor says:

- a) nausea
- b) polyuria
- c) icterus
- d) dysuria
- e) paraesthesia
- f) dysphagia
- g) tussis
- h) pruritus
- i) dyspnoe
- j) rhinorrhoea
- k) anorexia
- l) vertigo
- m) cephalalgia

Fig. 10: Example of an authentic and PBL task, where students are supposed to identify symptoms based on everyday language statements of patients

6.4 Didactic games

The benefits of game-based learning are generally known and acknowledged. Integrating didactic games into education is not a new technique. The gamification of learning is a proven method for teaching students, and educators have been using games as a teaching strategy since ancient times. "Integrating games into education is successful because it makes learning engaging, active, and personal for students. When students are engaged in the material they are more likely to retain what they have learned, leading to a deeper understanding of the material. As a result, using educational games in the classroom benefits students by bolstering problem-solving and critical-thinking skills, promoting collaboration, and motivating students to learn more" (Masmann, 2023). Nevertheless, university teachers hesitate to involve didactic games in their teaching process, as they do not consider them appropriate for the academic environment. According to Marfisi-Schottman, didactic games with explicit educational purposes "can be used for teaching at all levels of education and have much to offer for higher education" (Marfisi-Schottman, 2019, p. 12). The main characteristic of learning games for higher education is the fact that "they are designed to teach specific complex skills taught at university" (Marfisi-Schottman, 2019, p. 1).

When teaching languages, even a language for specific purposes, implementing didactic games is in our opinion essential. We can only confirm that using games as a teaching strategy makes the atmosphere in the classroom relaxed and enjoyable and offers a pleasant "relief from routine" (Marfisi-Schottman, 2019, p. 9). Moreover, it

boosts the motivation of students and leads to deeper understanding and reinforcement of the learned material. Our students proved to be very eager to play didactic games, and also very competitive. There were no game sceptics found among them. In our teaching process, we use board games, card games, crossword puzzle games, and even kinaesthetic types of games.

EXERCISE 6

Find plurals forms from these nouns:

cartilago – vulnus – costa – nervus – os – digitus – foramen – vas – genu – pulmo

Fig. 11: An example of a Latin didactic game

R	E	D	J	V	Z	H	A	I	M	Q	T
C	A	R	T	I	L	A	G	I	N	E	S
G	G	S	E	I	U	S	U	G	A	D	O
B	I	E	S	G	P	F	K	H	I	C	S
A	V	N	L	P	D	S	V	G	O	J	V
N	R	O	S	D	G	J	I	S	A	A	A
I	E	M	P	E	E	T	T	U	H	O	S
M	N	L	T	R	I	A	N	V	O	C	A
A	P	U	N	A	E	E	B	S	S	L	Q
R	E	P	A	A	G	S	S	D	H	W	G
O	I	F	O	Z	D	A	E	P	N	U	Y
F	W	U	A	V	U	L	N	E	R	A	G

6.5 Simplification

Simplification in pedagogy is not a modern teaching method, it is rather a tendency of a teaching strategy based on an empathetic teaching approach. “Good pedagogy involves helping learners reach their goals through suitably staged steps” (Deweerd, 2001, p. 63). According to Brumfit, the “process of simplification is important in general teacher thinking and methodological practice” (Brumfit, 1993, p. 5). A key feature of linguistic simplification is the “principle of selection, coherence and adaptation to audience” (Brumfit, 1993, p. 2). Even in the academic field, simplification, if possible, can be viewed as a very useful and effective tool when it comes to teaching. Naturally, not everything can be simplified, but if simplification is possible, such as in the field of teaching languages, why not apply it? We would like to emphasize, that the reduction in quantity (long theoretical introductions, unnecessary philological content) does not cause a reduction in the quality of the materials. On the contrary, students learn more information, their knowledge is profound and lasting. As George states, a “simplified version is realistically described as an alternative encoding of it, with the encoder of the alternative version doing the same things as the original encoder” (George, 1993, p. 9),

just in a different way that we consider to be more appropriate and useful for our target group. In this context, we find the quote from one of the greatest of all German thinkers, Friedrich Schiller, most suitable: **Simplicity is the result of maturity**. It is not simple to teach simply. But the results are worth it.

ADJECTIVES

Let us kindly remind you of the important fact that there are **two main groups of adjectives in Latin**:

1st and 2nd-Declension Adjectives

- **us, a, um** → longus, longa, longum
- **er, a, um** → dexter, dextra, dextrum
- -us/-er = masculine nouns
- -a = feminine nouns
- -um = neuter nouns

3rd Declension-Adjectives

- **alis, ale** → frontalis, frontale
- **ior, ius** → anterior, **anteriorius**
major, **majus**/minor, minus
- -is/-ior = masculine + feminine nouns
- -e/-ius = neuter nouns

Fig. 12: A simplified explanation of the complex system of adjectives in Latin

Noun+noun-phrases and **noun+adjective-phrases** follow a **different set of rules**:

1. NOUN+NOUN:

golden rule = 1st noun is in **NOMINATIVE**, all following nouns are in **GENITIVE**

caput radii = head of radius	caput = nom. sg.	radii = gen. sg.
spina scapulae = spine of shoulder blade	spina = nom. sg.	scapulae = gen. sg.
ossa capitis = bones of head	ossa = nom. pl.	radii = gen. sg.

2. NOUN+ADJECTIVE:

→ the adjective follows its noun in case, gender and number
 → they do not necessarily have to share the declension though

os frontale = frontal bone	os = noun in nom. sg., neuter
	frontale = adjective in nom. sg., neuter
musculus deltoideus = deltoid muscle	musculus = noun in nom. sg., masculine
	deltoides = adjective in nom. sg., masculine
fascia palmaris = palmar fascia	fascia = noun in nom. sg., feminine
	palmaris = adjective in nom. sg., feminine

A. Basic simple phrases

Two-words phrases are the most frequent ones (with exception of the muscle names)



Fig. 13: An example of a simplified explanation of the structure of anatomical terms

B. Combined complex phrases

Both types of phrases mentioned above can be combined into longer anatomical phrases consisting of more than two words. Various combinations are possible:

noun + adjective + adjective	sutura palatina transversa
noun + adjective + adjective + adjective	spina iliaca superior posterior
noun + noun + noun	fovea capitis femoris
noun + adjective + noun	membrana interossea antebrachii
noun + adjective + noun + adjective	facies articularis condyli medialis
noun + noun + adjective + noun	flexor digiti minimi pedis

Translation into English:

1. Determine nouns
2. Determine adjectives
3. Connect nouns with their adjectives
4. Translate: we always start with adjectives; 1. the nominative phrase, 2. the genitive phrase

3 2 1 4
extensor radialis longus carpi = long radial extensor (muscle) of the wrist

3 2 1
arteria subclavia dextra = right subclavian artery

4 3 2 1
spina iliaca superior posterior = posterior superior iliac spine

Fig. 14: An example of a simplified explanation of the structure of complex anatomical terms

7 Results and student feedback

During the pilot project of the new teaching concept and textbook in the academic year 2022/23, a total of 86 students were involved, divided into 8 groups, with each group consisting of 10 to 12 members. The groups were selected to represent various typologies of students.

The new method and textbook received **unprecedented interest and engagement** from the majority of foreign students throughout the semester. The classes were conducted in a **relaxed and creative atmosphere**, where students actively participated without waiting to be addressed. They demonstrated critical thinking, were motivated by the usefulness of the content, and felt a **sense of accomplishment** during exercises. The groups developed a **strong cohesion**, and **students collaborated more effectively**.

An interesting occurrence was that for the first time, we could observe the differences in professional competence and cognitive abilities among students, particularly about the implementation of the CLIL method. In traditional, linguistically-oriented teaching, the students' professional level was minimally expressed and had no significant impact on their academic performance in the Latin Medical Terminology subject.

The simple language of explanation made also “self-sufficiency in learning” (Savin-Baden & Major, 2013, p. 15) possible. Students who missed a class could easily catch up by studying the materials on their own. This remark might appear absurd, considering the academic level, but our undergraduates were barely able to work with the traditional textbook independently.

The effectiveness of our new approach is reflected also in the grades of final exams. We had never experienced such a **high number of excellent results**. No student would

have failed the final test. We were very pleased to observe the enthusiasm and engagement of our students, which resulted in the following accomplishments.

Results of the final examination after the two-semester course:

evaluation grade	number of students
A	43
B	12
C	18
D	5
E	8
Fx	0

In previous years, A-grades were typically awarded to graduates of German and Austrian grammar schools, who brought knowledge of Latin morphology and study habits acquired through years of studying Latin using a philological approach. In the pilot semester of the new concept, **students with different study backgrounds achieved comparable levels of success**. Interestingly, also Japanese students and students from Middle East countries showed higher performance. Additionally, students reported that they did not have to prepare and memorize extensively for the tests because **they remembered most of the answers from the class**.

The second method of evaluating the new concept involves feedback from students in the form of a **questionnaire**. We are also aware of the fact that “the ability of self-assessment is one of the most important abilities of an autonomous learner” (Kováč & Hankerová, 2022, p. 92). Hence, at the end of each semester, an anonymous survey was conducted using the MS Forms platform. The survey focused on the study materials, the progress and content of teaching, and the pedagogue's work. Throughout the semester, students were encouraged to provide direct feedback and express their criticism regarding the new materials during class.

The survey results have shown a positive attitude of the majority of students towards the new teaching approach. There were no negative comments, not even neutral ones. Students appreciated the usefulness and logical structure of the content and reported that they learned a lot during the classes. **The overall rating of the course was 4.98 out of 5.**

Examples of students' feedback on the materials include:

Answers to the question: **How do you evaluate the new study materials for the subject? Was the material written understandably and interestingly which is appropriate for your way of thinking?**

It was perfect and understandable. We learned a lot about anatomy terms. As medical students we need this!

The material written part was understandable and interesting

yes

Also perfect, easy to revise and study from it

The new study material has been a huge improvement compared to the previous one, it can be easily understood by students, and I think it suits the nature of the subject, personally I was really surprised by how easy it was to understand every minor detail.

YES. Especially the small games (crosswords puzzles) did help. In these days, you can get information everywhere. The value of a teacher therefore is to present the knowledge in a easy and understandable way. Lucia and the new study material are doing a great job with that.

Compared to the 'old' book, which I looked into after the first semester, it was not very good structured! And I know that even people with the latinum from school in Germany (with round about 9 years of declinations and translating) they struggle with that. I think this approach should be used for all students!

The textbook is easy to understand for students in international courses. I think it is easier for Japanese to understand than another textbook.

Answers to the question: **Was the order of the units organized satisfyingly? How do you find the concept of starting with the clinical terminology and then slowly building the way up to the principles and structure of anatomical terms?**

The organisation of the units was a very successful choice, very student-friendly since the beginning, and slowly adds grammar knowledge as it progresses. There isn't a single thing I would change in the unit order, personally.

I liked the way, we started without grammar and didn't notice, that we actually started - smooth entrance with satisfying knowledge

It helped build up knowledge and the understanding on how the words are declined

Yes, it was.

Yea, it helped a lot for the understanding.

I think everyone will agree if I say that the new approach is the best. I myself have difficulties with learning new languages and with overloading students with the full force of the Latin grammar you tend to overwhelm them. In this new strategy I had already built up knowledge of Latin which helped me immensely to understand the grammar following up in the summer semester.

I loved this concept and thought it to be most effective for me in understanding the latin language and learning the terminology first as it then helped me with the anatomical terms

I find it very motivating. And this is the most important. One see WHY we learn it.

I really enjoyed every lesson. The exercises in particular were very diverse and fun to do. I feel that I have improved my Latin knowledge immensely and I had a really great time while doing it. Each lesson was very organized due to the structure of the units.

8 Conclusion

We have developed a method, and know-how, so to speak, which makes the principles of medical terminology accessible also to professionals from other fields, such as teachers of English for specific purposes, or colleagues from other departments of the faculty who are not doctors. Our goal was not just to teach the information for the final exam, but to convey it in such a way that the majority of the students will remember the majority of the subject matter for the rest of their lives. For this reason, we plan to conduct another survey with the same students in three years to determine the long-term effectiveness of our teaching methods.

There are perhaps not many fields that are more conservative and resistant to change and innovation than the field of classical philology. German language uses for it the beautiful term "Orchideenfach", English is more sober in its description and classifies the discipline dedicated to the study and preservation of the so-called dead languages as a "niche subject". This resistance seems to correlate with the nature of the subject as something solid and not evolving. However, one of the ways how to preserve and enhance

the relevance and privileged position of Latin and Greek is to make them accessible to a wider audience. This is what we intended. We seem to have succeeded. Our key to success has been the bold, innovative approach of radical simplification and adaptation to the requirements of the new generation of our students, as presented in this paper. Implementation of innovative teaching methods within the conservative field of Graeco-Latin medical terminology proved to be very effective and had a significant impact on the attitude, motivation and achievements of our students. Thus, we did not provide them only with useful information for their future medical careers. We shared with them also our love and deep appreciation for our subject. Now, many of them seem to share this love and appreciation with us.

References

- Ball, Ph., Kelly, K., & Clegg, J. (2015). *Putting CLIL into practice*. Oxford University Press.
- Baird, M. (2019). *Project-based learning to develop 21st-century competencies*. Ontario Tech University. <https://pressbooks.pub/techandcurr2019/chapter/pbl-competencies/>
- Brumfit, Ch. (1993). Simplification in pedagogy. In M. L. Tickoo (Ed.), *Simplification: theory and application* (pp. 1-6). Anthology Series 31. SEAMEO Regional Language Centre.
- Cilliers, E. J. (2017, January 27). *The challenge of teaching Generation Z*. University of Technology Sydney. https://www.researchgate.net/publication/312659039_The_challenge_of_teaching_generation
- Coyle, D., Hood, Ph., & Marsh, D. (2010). *CLIL. Content and Language Integrated Learning*. Cambridge University Press.
- Deweerd, J. P. (2001). A defence of simplification. *Prospect*, 16(3), 55-67. <https://www.wgtn.ac.nz/lals/resources/paul-nations-resources/paul-nations-publications/publications/documents/2001-Deweerd-Simplification.pdf>
- Escobar Álvarez, M. A. (2020). Developing CLIL in tertiary education: Working with tourism texts. In N. Kenny, E. E. Işık-Taş, & H. Jian I. (Eds.), *English for Specific Purposes Instruction and Research. Current Practices, Challenges and Innovations* (pp.269-288). Macmillan.
- George, H. V. (1993). Simplification. In: M. L. Tickoo (Ed.), *Simplification: Theory and Application* (pp. 7-13). Anthology Series 31. SEAMEO Regional Language Centre.
- Hadfield, J. (1998). *Elementary Vocabulary Games: A Collection of Vocabulary Games and Activities for Elementary Students of English*. Longman.
- Hadfield, J., & Dörnyei, Z. (2013). *Motivating Learning*. Pearson.
- Hawthorne, H. (2021). *Understanding the Importance of Motivation in Education*. High-Speed Training. <https://www.highspeedtraining.co.uk/hub/motivation-in-education/>

-
- Kováč, S. & Hankerová, K. (2022). Hodnotenie jazykových kompetencií v anglickom jazyku poslucháčov všeobecného lekárstva. In: V. Dvořáčková, L. Švanda & I. Rešková (Eds.), *Výuka jazyků na lékařských fakultách II* (pp. 89-99). Masarykova Univerzita.
- Mahmoudi, S., Jafari, E., Nasrabadi, H. A. & Liaghatdar, M. J. (2012). Holistic education: an approach for 21 century. *International Education Studies*, 5(2), 178-186.
- Marfisi-Schottman, I. (2019). Games in higher education. *Encyclopedia of education and information technologies*, 97, 1-9.
- Massman, M. (2023). *Integrating games in education: using games as a teaching strategy*. Hurixdigital. <https://www.hurix.com/integrating-games-in-education-using-games-as-a-teaching-strategy/>
- Mehisto, P., Marsh, D., & Frigols, M. J. (2008). *Uncovering CLIL*. Macmillan.
- Pavláková, E. (2020). *Nový časovo-tematický plán výučby latinčiny na stredných zdravotníckych školách*. Comenius University Bratislava.
- Pokrivčáková, S. (2013a). *CLIL research in Slovakia*. Gaudeamus Hradec Králové.
- Pokrivčáková, S. (2013b). *Teaching techniques for modern teachers of English*. ASPA.
- Richards, J. C., & Burns, A. (2012). *The Cambridge guide to pedagogy and practice in second language teaching*. Cambridge University Press.
- Rothman, D. (2016). *A tsunami of learners called Generation Z*. http://www.mdle.net/Journal/A_Tsunami_of_Learners_Called_Generation_Z.pdf
- Savin-Baden, M., & Major, C. H. (2013). Problem-based learning: New constellations for the 21st century. *Journal of Excellence in College Teaching*, 25(3&4), 1-23.
- Sepešiová, M. (2021). A phenomenon of Content and Language Integrated Learning. Prešov: Prešovská univerzita.
- Taylor, R. (2022). Modern teaching methods in education in the modern era. *International Journal of Education Research and Reviews*. Commentary. 10(2). <https://www.internationalscholarsjournals.com/articles/modern-teaching-methods-in-education-in-the-modern-era-88575.html>
- Tomlinson, B. (2011). *Materials development in language teaching*. (2nd ed.). Cambridge University Press.
- Vilkancienė, L. (2011). CLIL in tertiary education: does it have anything to offer? *Studies about Languages*, 18, 111-116.
- Vīksne, V., & Ābelīte, I. (2015). Teaching Latin in international student groups: comparative study. *CASALC Review*, 5(2), 126-137. <https://science.rsu.lv/en/publications/teaching-latin-in-international-student-groups-comparative-study>

EFL teachers' attitudes towards authentic language materials – digital video movies

Radoslav Ďurajka

Introduction

Teaching and learning methods, techniques, and tools have gone through several beneficial changes. As Joraboyev (2021, 1018) mentioned, the teachers have been using the internet to download materials, update their knowledge, get immediate solutions for their doubts and queries, show the required pictures, videos and audio to the learners, give PowerPoint presentations, record the learning process of the students and so on. Learners can learn the language both in and outside the classrooms because of their smartphones and many applications. It dramatically changed the learners' learning styles, but the most critical process still takes place in the classroom and depends on the teacher and his/her abilities. Choosing a good example of authentic material and using it properly is just one of the abilities required today because acquiring English as the target language implies developing skills, especially when exposed to real-life communicative situations.

Authentic material

The use of authentic language (video) material can affect the process and quality of language acquisition. The use of authentic video in class has become part of applied linguistics, considering development trends in research and new forms and methods in education. The learners' acquired language becomes a mediating medium of culture and ceases to be "only" a communication tool. Language becomes a mediator between cultures (relatives – distant), represents cultural universals, and must unconditionally manifest itself in the adaptability of the learner to accept new social and cultural phenomena and understand their interrelationships against the background of intercultural contact. Cultural universals include symbols comparing cultures from different historical periods and territories: gestures, artefacts, signs, signs, language, spoken and written form; norms: customs and customs, morals, rights, taboos, and their sanctions and values: ideal and real.

The debate over the role of authenticity, as well as what it means to be authentic, has become increasingly sophisticated and complex over the years and now embraces research from a wide variety of fields, including discourse and conversational analysis, pragmatics, cross-cultural studies, sociolinguistics, ethnology, second language

acquisition, cognitive and social psychology, learner autonomy, information, and communication technology (ICT), motivation research and materials development.

There is a considerable range of meanings associated with authenticity, and therefore the author was curious if the term remains ambiguous to most teachers. The concept of authenticity can be situated in either the text itself, in the participants, the social or cultural situation and purposes of the communicative act, or some combination of these.

Authentic materials are defined by Gardner and Miller (1999, pp. 101) as materials intended for some other use besides language learning. Authentic material can come in all forms of communication. It may be written texts, audio recordings of actual communications, or videos of conversations or dialogues, all containing content not intended to be used for language instruction. It is said that the language presented to students in textbooks is a poor representation of the real thing and that is why many researchers (Ianiro, 2007, Şaraplı 2011; Bajramia & Ismaili, 2016; Joraboyev, 2021) see advantages in using authentic material in EFL classes. However, using authentic video materials does not just bring benefits. It raises many (research) questions, such as those mentioned in the study "The use of authentic materials" by Berardo (2006); who considers the sources of authentic videos, the important factors in choosing authentic material, or when and how to use them. From the teachers' viewpoint, he ponders whether the teachers are able/willing to use them, how often, whether they need training, and in what area. These questions were inspired when designing our research, carried out on a sample of Slovak EFL teachers.

Authentic video material

Video materials nowadays are not only part of everyday life activities, but they are an effective tool in teaching English language as a foreign language to all learners inside and outside the classroom. Many theoreticians and practising teachers devoted their studies to the purposeful use of videos in the language classroom because the authentic video is an accurate representation of actual language used in the real world. It brings with it comprehension considerations beyond those outlined in the Common European Framework of Reference for Languages (CEFR), such as vocabulary, grammatical forms, subject matter, and context.

The practical implications of video in any classroom environment can easily be adjusted; the teacher can step in the process whenever he/she wishes; he can stop, start, and rewind to repeat it several times where necessary. Any selected short sequence from the program can be utilized for intensive study. It is possible to run in slow motion, half speed, or without sound to pay special attention to a particular point in the programme. Besides, the learner can concentrate on the language in detail and interpret what has been said, repeat it, predict the reply, etc. The learner can also concentrate in detail on visual clues to meaning such as facial expression, dress, gesture, posture, and the environment's details. Even without hearing the language spoken, clues to meaning can

be picked up from the vision alone. Using visual clues to meaning in order to enhance learning is an integral part of video methodology. The other point that should be focused on is that interpreting attitude is very difficult in a foreign language because the listener concentrates on the verbal message, not the visual clues to meaning. The video gives the students practice in concluding attitudes. The rhythmic hand and arm movements, head nods, and head gestures are related to the structure of the message.

Moreover, the students have a general idea of the culture of the target language. It may be enjoyable for the learners to have something different for language learning apart from the course books and cassettes for listening. On the other hand, the disadvantages of the video should also be taken into account. The main disadvantages are cost, inconvenience, maintenance, and in some cases, fear of technology. Additionally, the sound and vision, quality of the copies, or home-produced materials may not be ideal. Another important issue, in this case, is that the teacher should be well-trained in using and exploiting the video. Otherwise, it becomes boring and purposeless for students (Çakir, 2006).

To summarise the role of authentic materials in the language classroom, as seen by different authors, students become motivated to learn authentic language by watching and talking about the scenes and/or the actions. Video, combining words, audio, and images, allows words to be visually presented. The video develops students' communicative culture, which assists them in understanding how important it is for their success in life. The use of video materials stimulates oral communication among students. The use of authentic video in the language classroom allows teaching language and cultural concepts both verbally and non-verbally in a real communicative setting, so it helps break down the cultural barrier and form students' sociolinguistic competence. Video material presents living language patterns in the language classroom. It can be an important component and a non-standard way of teaching foreign languages. Video is a powerful way to tell a story; video teaches to communicate; video helps to teach listening by listening; video motivates students by impressing the power of language. It intensifies the process of teaching on the whole and masters language skills (Syunina et al., 2017). The practically oriented studies offer ready-to-use strategies, tools, and activities using video in EFL class that avoid the danger of students' sitting back and watching the screen and driving learning in the language classroom.

Despite the disadvantages of using authentic materials (as they make especially lower-level students confused and demotivated by the complexity of language and performance conditions), Maglione (2017) also alleges that what is sometimes portrayed as a weakness of authentic English language video is an advantage. Precisely because producers of entertainment videos strive to reproduce how English native speakers speak accurately. Authentic video is ideal for acclimatizing learners to the types of speech speeds and cadences, prosody, use of informal speech, and evolving conventions of usage that they will encounter when they need to communicate with a native speaker of

English or need to comprehend the language swirling around them in an English-speaking environment. Moreover, suppose the exercises built around authentic video are structured correctly. In that case, this massive range of inputs will help learners understand the essential notion that it is not necessary to understand every word in a dialogue or every reference in a conversation to negotiate meaning from it and conduct a communicative exchange.

Practical techniques for video implication

There are some techniques that both teacher and learner should benefit from to achieve a successful result in language teaching using video as an aid. Active viewing increases the students' enjoyment and satisfaction and focuses their attention on the main idea of the video presentation. Therefore, students must take an active part in video teaching presentations. Since the presented thesis aims to join the didactic concept of EFL as a subject of applied linguistics, this chapter is focused on the language-didactic implication of the results obtained from the questionnaire. This part also offers an overview of the most preferred exercises that can inspire teachers who do not typically use authentic video materials.

FREEZE FRAMING AND PREDICTION means stopping the picture on the screen by pressing the still or pause button. The video gives us additional information about the character's body language, facial expressions, emotions, reactions, and responses. The teacher freezes the picture when he or she wants to teach words and expressions regarding mood and emotions, ask questions about a particular scene, or call students' attention to some points. By freezing the scene, the students can be asked what is going to happen next. So, they speculate on what will happen in the next act. Freeze framing is excellent for speculating. This activity also fires the students' imagination by leading them to predict and deduce further information about the characters.

In **SILENT VIEWING**, the video segment is played with the sound of using only the picture. This activity can also be a prediction technique when students are watching a video for the first time. One way of doing this is to play the video segment without the sound and tell students to observe the characters' behaviour and use their power of deduction. Subsequently, the teacher pauses the video at intervals to stop the picture and asks students to guess what is happening, what the characters might be saying, or what happened up to that point. Finally, the video segment is replayed with the sound to compare their impressions with the actual story plot.

ROLE-PLAY involves students as active participants. As each student plays the assigned role, he/she becomes more and more involved. Role-playing is an excellent communicative activity and proper preparation for real-life situations. It gives a chance

to students to apply what they are learning. This activity also helps students better understand their behaviour and be more able to respond positively to various human relationships.

REPRODUCTION ACTIVITY After seeing a section, students are asked to reproduce either what is being said, to describe what is happening, or to write or retell what has happened.

DUBBING ACTIVITY In this activity, students are asked to fill in the missing dialogues after watching a sound-off video episode. It is interesting and enjoyable for the students to complete a scene from the video by dubbing.

COMMENTED FILM is a revitalised method of watching a film, and it is considered more effective than classical film watching. However, it is much more complicated to explain. It was used to present facts about Slovakia to foreigners studying Slovak as a foreign language. When evaluating the course, all students mentioned this method as effective in learning the language. The selected films offered the story and captured a specific period of history.

The technique applies the following principles:

1. Choice of the film – A selected film should capture the period of history presented by the adopter. The lecturer must be familiar with the film so as not to be surprised by any questions from the students (about the film, author, music, characters, the reality of the film/story), and the presented period in a broader European/world context.
2. Introduction – Students learn of the film's background (when it was shot, directed, actors, interesting facts, such as received film awards) and the period in which the film's story takes place.
3. Course – The teacher pauses the film and comments on what was seen, i.e., whether the students noticed a specificity (important for understanding the depicted situation) and understood why it happened. The teacher also draws attention to what will continue to take place in the film.
4. Individuality – The course is highly individual for each film, and it is not possible to determine precisely at what time intervals or after which scene the film needs to be stopped and discussed. In general, interruptions should not be frequent so that students perceive the context and, of course, enjoy the artistic experience. The lecturer should capture the right moment to complete the idea, and the actors' replicas are finished.
5. Evaluation – While watching the students work with a worksheet answer the questions related to the video's plot. It is necessary to read the worksheet with the students before watching the video so that the students/adopters know what is expected of them.

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6. Advantages – The motivation increases because the learners realise that the language they are studying also allows them to enjoy art in the given country and thus penetrate its culture and understand it. It acquires not only new vocabulary but also new information. The learners find that "ordinary lessons" provide them with valuable material necessary to acquire the knowledge they can already acquire in other lessons in the language they have just acquired. Last but not least, language lessons are perceived as "relaxing," and a relaxed atmosphere allows unconscious language acquisition and often forces the adopter to express his opinion because he does not perceive the need for the correct answer.

The research aims and questions

This study aimed to examine teachers' attitudes towards using authentic materials. Firstly, the research focused on how teachers understand the term "authentic" and analysed different interpretations provided by them. The research also attempted to investigate whether the teachers prefer to use authentic video materials to strengthen students' skills. The items concerning the authentic video material sources and the most useful exercises should provide abundant data for those teachers who are novices at using authentic video. To investigate which criteria they follow and their conformity with said criteria should provide data for further possible research. This research also examines the teachers' demands for further education, what type of training they are interested in, and with what problems they are struggling. For these purposes, several research questions were formulated.

- RQ1:* What are the teachers' attitudes toward using authentic materials in EFL classes, and how do they define it?
- RQ2:* Do the teachers prefer to use authentic materials (or not)?
- RQ3:* At which levels would the teachers use authentic materials?
- RQ4:* What sources would the teachers use to obtain authentic video materials, and which criteria do they follow?
- RQ5:* How, how often, and why do they use authentic video materials? What competencies do they want to strengthen?
- RQ6:* Do the teachers need training in dealing with authentic video materials? If so, what type of training would they prefer?
- RQ7:* In what activities/parts of the teaching process do the teachers use authentic video materials?

Results and discussion

This study aims to determine English teachers' attitudes toward using authentic materials, specifically video materials, in their classrooms. For that purpose, the questionnaire survey was employed to collect the data for analysis. The teachers'

responses to the questionnaire items are provided in the following tables. The collected data enabled us to carry out a detailed analysis and present the relevant interpretations.

Tab. 1: Results of questionnaire item 1

Question 1	Answers	Frequency	%
How long have you been teaching English?	1 – 5 years	22	41.5%
	5 – 10 years	11	20.8%
	10 – 20 years	10	18.9%
	20+ years	10	18.9%

The first question sought to determine whether there is a correlation between the length of teaching and the use of authentic video material (question 6) and the possible willingness to undergo further education in this area (question 14). No significant differences were noted.

Tab. 2: Results of questionnaire item 2

Question 2	Answers	Frequency	%
Where do you teach?	Elementary school	26	49.1%
	Secondary school	11	20.8%
	University	12	22.6%
	Language school	9	17%
	Private lessons	7	13.2%
	Others	1	1.9%

The length of teaching and the type of school were the only questions identifying teachers. These results show what further research can be done. The length of teachers' teaching career can correlate with their attitude to the use of authentic materials. Also, their willingness to further education in this area depends on the amount of practice. Identifying the schools in which the respondents teach can help focus future questionnaires more precisely (for each type of school separately). Thus it may help identify the use of authentic materials (but also the barriers to their use) and make recommendations for each reference level as classified by the Common European Framework of Reference for Languages.

Participants were able to choose more than one option in questionnaire item 2 since English as a Foreign Language teachers in Slovakia usually teach at more than one school. This question should also be clarified in the future, allowing only one answer because, according to the present research, it is not clear whether language schools/private lessons use authentic video material or not.

Tab. 3: Results of questionnaire item 3

Question 3	Answers	Frequency	%
How would you define authentic material?	Material that is connected to daily life	29	54.7%
	Authentic sources, like books, magazines, videos, songs, etc.	29	54.7%
	Others	3	5.7%

Integration of the third question into the questionnaire enabled us to explore how the teachers understand and define authentic material. Since it was an open question, it provided us with qualitative data. It sometimes happens that both ordinary people and professionals use a technical term but understand it differently, even inaccurately, which was also the case in this questionnaire. Three answers differed from the norm: 1) my own, 2) pictures, and 3) any type of activity used in the classroom, inspired by real-life situations. Moreover, few answers did not define authentic materials but described them as useful (4 answers), engaging and motivating (2), reliable/trustworthy (1), bad/good (1), unabridged, colloquial, or professional (1). Curiously, one of the respondents defined authentic materials as "tools for meeting the beauty of language" (1).

In six answers concerning "authentic sources," the respondents alleged that they are *"produced by a native speaker or people for whom English is the 2nd language (considering various accents, dialects and social, cultural, geographical, historical backgrounds)"* and *"used for educational purposes"* also appeared in some answers.

In general, it can be concluded that all the answers overlap, because both significant categories (table 3) are from "real life". The basic differences were in the examples. The examples of the first category were: "change-of-address forms, job applications, menus, voice mail messages, applications, maps" and the examples in the second category were: "newspaper articles, books, unabridged texts, materials produced for the free time of English native speakers" – materials not as a source of information.

Tab. 4: Results of Questionnaire Item 4

Question 4	Answers	Frequency	%
What are the sources that you would use to obtain authentic materials?	Newspapers and magazines	47	88.7%
	TV/video	49	92.5%
	Radio	33	62.3%
	Internet	52	98.1%
	My recordings	15	28.3%

Item four referred to the teachers' sources used to gain authentic input; participants chose yes – no for each item. This question served as preparatory for question no. 5, in which the author attempted to discover from what sources the teachers obtained authentic materials. Most participants indicated they prefer to use the Internet as the primary source (98.1%). In addition, 88.7% would use the TV/video, approximately 89% would use newspapers and magazines, and 62.3% might use the radio. Radio was understood in terms of online broadcasting, and therefore should probably be integrated into the answer "Internet." Similarly, some magazines and newspapers have been cited as "online resources". Since almost 30% of respondents indicated that they use self-prepared authentic materials, exploring their "own recordings" would inspire further research focused on how and where they were recorded, what their quality is, whether it is a recording of a conversation, a radio broadcast, or an authentic recording.

The questionnaire item 4 results show that the internet is the most commonly used source for obtaining authentic materials. A good selection of material, resolving whether it is genuinely authentic remains a question for further research.

Tab. 5: Results questionnaire item 5

Question 5	Answers	Frequency	%
Can you give examples of the sources (TV; video; internet) that you use to obtain authentic video materials?	YouTube	30	56.6%
	BBC	17	32.1%
	British Council	3	5.7%
	TedTalk	5	9.4%
	Netflix	3	5.7%
	elt.oup.com	2	3.8%
	Google	3	5.7%
	Internet (blogs, magazines, news)	22	41.5%

The fifth questionnaire item confronted participants with the term authentic video material for the first time. In the previous questions, the more general term authentic material was used, and this issue will be dealt with video material, which is our goal for the study. In general authentic materials help students bridge the gap between the classroom and the outside world. In addition, authentic video has been found to motivate students more to learn, improve their communication skills and often create a pleasant atmosphere.

Several responses were also received that were not precise responses to the question. These general answers were: fairy tales, song lyrics (2), podcasts (3), social media (3), documentaries + movies (4), different leaflets, Travelling or reality shows (2), interviews (2) streaming services which should probably be added to the twenty-two

answers "internet". If they are added, the result for the internet would be: 40 answers – 75.5%.

The list of websites in alphabetical order is not relevant to our analysis but can be used as help for those who do not know and/or have not used these websites yet: Apple.tv, Britannica, Cambridge publishing companies, CNN, Deep English, gamestolearnenglish.com, Harvard Medicine Magazine (online), Instagram influencers, National Geographic, New Scientist, medtube.net, One Minute English, PBS, The Slovak Spectator, Teachers Pay Teachers the Times (2), viemepoanglicky.sk, Viki.iedu.sk, Vimeo.

Tab. 6: Results of questionnaire item 6

Question 6	Answers	Frequency	%
How often do you use authentic video?	Every lesson	2	3.8%
	Once a week	18	34%
	Once a month	10	18.9%
	Rarely	13	24.5%
	Never	0	0%
	As much as possible	8	15.1%
	Other	2	3.8%

Participants were asked not to consider adapted recordings provided as part of coursebooks used in classrooms in this question. Two teachers answered this question "every hour", which is difficult to imagine, regarding the conditions of the education system. Perhaps watching videos was a substitute for full-time English lessons during the pandemic. However, if two teachers can do this, it would be fascinating to compare the results of their students with other "regular" students. This thesis, especially the conclusion with practice recommendations, could help teachers who have marked "rarely" as their response. A total of twenty-six answers, i.e., almost 50% of respondents marked the choices *once a week + as much as possible*, which shows that authentic video in English lessons already has a stable position in the teaching process.

Tab. 7: Results of questionnaire item 7

Question 7	Answers	Frequency	%
How do you use authentic video?	Warm-up	18	34%
	The main part of the lesson	11	20.8%
	Supporting material	30	56.6%
	Additional material	22	41.5%
	Revising material	5	9.4%
	Others	5	9.4%

In questionnaire item 6, participants could choose a maximum of two most common uses. This question also explored the use of authentic video in EFL lessons, and the results suggest that authentic video material is mainly used as a supporting material (56.6%), followed by the use during warm-up activities and as additional materials (34% – 41.5%). Based on the results, it can be concluded that teachers probably consider using authentic video material during the central part of the lesson (20.8%) as time-consuming and difficult to prepare (see Table 11).

Tab. 8: Results of question 8

Question 8	Answers	Frequency	%
Why do you prefer to use authentic video?	Exposure to real language	45	84.9%
	Motivate the students	29	54.7%
	Improve the students' skills	20	37.7%
	Administration requirement	0	0%
	Others	4	7.5%

The results of questionnaire item 8 show the reasons for the teachers' positive attitudes toward using authentic materials in classes. They consider authentic materials an essential input for improving students' skills, motivating and exposing them to authentic language. None of the teachers agree that implementing authentic materials is required by the administration. Thus, it indicates that the administrative policy in Slovakia (at different types of schools) does not encourage teachers to include authentic materials in the curriculum. The majority of the participants (84.9%) stated that they would use authentic materials to provide the students with the language used in real life. One of the teachers wrote: *"I like to use authentic materials. By using live language, spoken by either native speakers or people for whom English is a 2nd language (considering various accents, dialects, and social backgrounds), the students are related to the real world, reflecting different varieties of English, historical, geographical, and cultural background."*

Moreover, the analysis shows that 54.7% of teachers are concerned about motivating their students to learn the language by using authentic materials. One of the teachers indicated that she *"would provide anything that will be engaging and motivating"*. As a clear and specific example of motivation, the following answer can be considered: *"Promotion video about Windemere school in Britain – we watched it first and then we read an article about this school in our workbook. Children were excited because they could imagine it better..."* Of course, teachers do not forget the primary goal – education, and along with the previous facts, it goes hand in hand with increasing students' skills (37.7%).

Tab. 9: Results of questionnaire item 9

Question 9	Answers	Frequency	%
Which competencies do you want to strengthen by using authentic video?	Listening	48	90.6%
	Reading	10	18.9%
	Writing	1	1.9%
	Speaking	34	64.2%
	Presenting skills	4	7.5%
	Comprehension	40	75.5%
	Combination of	2	3.8%

The findings are consistent with previous research (Thanajaro, 2000) that confirmed authentic materials' positive effects in improving students' skills. The analysis of teachers' responses to question nine showed that 90.6% would use authentic materials to improve listening competency, 75.5% develop comprehension, and 64.2% use authentic materials to enhance speaking skills.

Tab. 3: Results of questionnaire item 10

Question 10	Answers	Frequency	%
Describe the task/ exercise/assignment that worked best (when working with authentic video).	Worksheets (find information, fill in, matching, reordering, T – F, multiple-choice, quiz, draw)	25	47.2%
	Oral comprehension check: questions/ discussion /dialogue /interpreting	23	43.4%
	Watching the video with no voice on, guess what people said/dubbing	3	5.7%
	Games/role plays	4	7.5%
	Writing (notes, summary)	4	7.5%
	Others	9	17%

The respondents who marked the response “Other” also specified exercises as part of the answer. The answers included the following: *"What students like, the 3 C's method, making their output, depends on the video and the lesson task, exercises related to the video, presentation based on a video, etc."* These answers should be reclassified or explained because they are unclear.

Examples of combined answers: 1) *Firstly, talk about the topic. Write down with your partner what you think about it. Then watch the video and discuss what was said.* 2) *Students were given a task with a set of questions that they read before watching a video. After watching the video, they are asked to retell what happened there and answer*

the questions. If the video topic is interesting, the discussion follows with students' own experiences or suggestions.

One teacher did not answer, and another one wrote, "I don't remember." The last chapter of this work will discuss successful exercises provided by teachers and their applicability – practical techniques for video implication.

Tab. 11: Results of questionnaire item 11

Question 11	Answers	Frequency	%
Why do you not prefer to use authentic video?	Time-consuming	16	30.2%
	Difficult for the students	12	22.6%
	Difficult to prepare the lesson	8	15.1%
	Syllabus constraints	17	32.1%
	Others	11	20.8%

As shown in Tables 1 – 10, the data analysis indicated a general concord among English teachers concerning the positive effect of authentic materials in teaching EFL. In their answers to the first ten items, all 53 teachers indicated using authentic materials in their language classes. Since all participants prefer to use authentic materials, question 11 should be perceived as eliciting possible barriers/restrictions on using authentic video material more regularly. Syllabus constraints (32.1%) could indicate that authentic video material would be used more if no limitations were present. Teachers perceive difficulties in preparing such a lesson, but it is very positive that only eight (15.1%) perceive Syllabus constraints as a barrier to using it.

Tab. 12: Results of questionnaire item 12

Question 12	Answers	Frequency	%
At which level(s) would you use authentic video?	Beginning levels	3	5.7%
	Intermediate levels	8	15.1%
	Advanced Levels	7	13.2%
	All levels	31	58.5%
	None	0	0%
	Others	4	7.5%

The suitable level for using authentic materials is one of the most debated aspects of foreign language teaching. As Schmidt (1994) stated, authentic materials should be designed according to the incidence of high-frequency lexis or structure and people's needs. Regarding item twelve of the questionnaire, almost two-thirds (58.5%) of respondents believe authentic materials can be used at all levels, 13.2% at an advanced level, 15.1% at the intermediate level, and only 3 teachers (5.7%) advise using these materials with beginners. This is not surprising, as teachers (see Table 5) identified fairly

tales and song lyrics as examples of authentic materials used in only three cases. It is probably caused by the inability of beginners "to touch such materials because they lack many lexical items and grammatical structures of the English language" (Akbari & Razavi, 2016), and teachers are aware of the students' limitations. Our result (and the type of used exercises) also proves that the authentic materials would not be effective in improving the skills of inexperienced students.

Tab. 134: Results of questionnaire item 13

Question 13	Answers	Frequency	%
What criteria of selection would you follow?	Language level	40	75.5%
	Length	10	18.9%
	Students' needs and interests	29	54.7%
	Course objectives	13	25.5%
	Others	5	9.4%

Regarding item thirteen, which focused on the selection criteria, 75.5% indicated that language level and students' needs and interests (54.7%) would be the primary strategies for material selection. More than a quarter of the participants (25.5%) would consider course objectives and only 18,9% believe it is the length of the text. Teachers stated different forms, contexts, and English language materials for their students. Berardo (2006) proposed criteria for selecting authentic materials such as suitability of content, attractiveness or variability in presentation. The results of this questionnaire did not confirm its results.

Tab. 14: Results of questionnaire item 14

Question 14	Answers	Frequency	%
Do you think you need training in dealing with authentic video materials?	Yes	19	35.8%
	No	11	20.8%
	Maybe	20	37.7%
	Others	3	5.7%

The analysis of teachers' responses to questionnaire item 15 discovered that (39.5%) believed they needed the training for using authentic materials, 37.7% answered maybe, and 20.8% claimed they needed no training. Teachers' personal information indicates that responses to this item were not affected by the length of teaching experience (the answers to this question have been compared with the answers to question one). This means that teachers, no matter the length of their active teaching, are willing to learn something new in this field and do not prove to be omniscient.

Tab. 15: Results of questionnaire item 15

Question 15	Answers	Frequency	%
If you need training in dealing with authentic video materials – what type of training do you need?	I don't need any training	11	20.8%
	Designing the activities	34	64.2%
	Selecting the materials	24	45.3%
	Others	2	3.8%

Concerning question fifteen, 84.5% of participants expressed some need for further training in using authentic video material. Thirty-four teachers stated that they need training in designing the materials (64.2%) and 24 teachers in selecting the materials (45.3%). It can be concluded that designing the appropriate tasks and fully exploiting authentic materials is more challenging than selecting the appropriate coursebooks. Eleven teachers declared no need for any training in dealing with authentic video material.

Conclusion

Presented research explored teachers' attitudes toward using authentic materials in EFL classrooms in Slovakia. It was conducted online due to the ongoing pandemic situation. The results revealed that all teachers had positive attitudes toward providing authentic input in their classes, regardless of the type of school (ranging from primary school to university) or the length of teaching experience. The reason for such an attitude was to improve students' skills, expose them to the real English language and motivate them. In addition, the results indicated that the Internet and TV would be the most used sources for obtaining authentic materials.

Furthermore, more than half of the teachers agreed that authentic video material is suitable for all levels. Most of the teachers believed that the language level of the text and students' needs and interests were the guiding criteria for selecting appropriate materials. Finally, 70.5% of all participants indicated a need (answers yes + maybe) for additional training in using authentic materials, particularly in designing appropriate tasks.

This research could be viewed as a starting point for further exploration into the use of authentic materials in EFL teaching in Slovakia. The author is aware that this research has several limitations that can be noticed for future research on teachers or teachers' and students' attitudes toward using authentic materials. The limitation is its small sample size which restricts the generalisation of its findings. In future research, some of the questions should be 1) more specific 2) more detailed 3) restrict the option for choosing more answers, or 4) reasoned by the answering person. The most significant barrier can be seen in the situation while carrying out the action research. Despite the original plan to use the authentic video materials in class as part of a quasi-experiment,

it was impossible to conduct because of the lockdown and its consequences. Therefore the aims and the methodology of the research had to be adjusted.

Finally, the author can agree with Akbari & Razavi's (2016, 112) conclusion that "teachers' opinions about how authentic materials can develop productive skills or how to plan instruction that incorporates such materials effectively are additional aspects of authenticity that can be explored in future investigations. Future studies may be conducted with English teachers of each type of school separately (elementary – universities and/or others like language schools, private or church schools, etc.) or within regions where they teach. However, this was not the aim of our research. Our research focused on teachers' attitudes in general. Hence, future research could elicit learners' attitudes or joint research into the views of teachers and their students at the same time. The sources and the quality of authentic material (for example, own recordings – as mentioned by some teachers) could be explored more precisely and determine the differences between the use of adapted and authentic material. Similarly, one could look at the success of increasing competencies and skills. At the same time, this study can serve as an inspiration for teachers who do not use authentic video material yet. They can find resources that other teachers are already using and exploit the most preferred exercises and activities in their classrooms.

References

- Akbari, O., & Razavi, A. (2016). Using authentic materials in the foreign language classroom: teachers' perspective in EFL classes. *International Journal of Research Studies in Education*, 5(2), 105-116. http://consortiacademia.org/wp-content/uploads/IJRSE/IJRSE_v5i2/1189-4346-1-PB.pdf
- Bajramia, L., & Ismailia, M. (2016). The role of video materials in EFL classrooms. *Procedia – Social and Behavioral Sciences*, 232, 502 – 506. <https://doi.org/10.1016/j.sbspro.2016.10.068>
- Berardo, S. A. (2006). The use of authentic materials in the teaching of reading. *The Reading Matrix*, 6(2), 60-69. <http://www.readingmatrix.com/articles/berardo/article.pdf>
- Çakir, I. (2006). The use of video as an audiovisual material in FLT classroom. *The Turkish Online Journal of Educational Technology – TOJET*, 5(4), 67-72.
- Gardner, D., & Miller, L. (1999). *Establishing self-access: From theory to practice*. Cambridge: Cambridge University Press.
- Ianiro, S. (2007). Authentic materials. *American Institutes for Research*, 1, pp. 128-130. <https://www.calpro-online.org/documents/AuthenticMaterialsFinal.pdf>
- Joraboyev, B. B. (2021). Using authentic materials on English lessons online. *Academic Research in Educational Sciences*, 2(2), 1018-1025. <https://journals.indexcopernicus.com/api/file/viewByFileId/1194415.pdf>

-
- Maglione, P. (2017). *Teaching English with authentic video*.
<https://www.linkedin.com/pulse/teaching-english-authentic-video-paul-maglione>
- Sarapli, O. (2011). The use of authentic materials in the second language classroom: advantages & disadvantages. *Dil Dergisi*, 154, 37-43.
<http://dergiler.ankara.edu.tr/dergiler/27/1832/19277.pdf>
- Syuniaa, S. et al. (2017). Authentic video materials as a means of speech fluency development In EFL class. *Journal of Language Teaching Methods*, 7(2), 34-40.
www.mjltm.org.

Integrating computer-assisted peer assessment into EFL teacher training

Silvia Pokrivčáková

Introduction

Peer assessment has increasingly been recognized as an alternative evaluation going under the umbrella terms of **assessment for learning**, i.e. assessment that functions as a learning opportunity (Blair & McGinty, 2013; Brew, Riley, & Walta, 2009; Carless, 2007; Ellery, 2008; Kearney, 2013; McDowell et al., 2011; Mumm, Karm, & Remmik, 2016; Sambell, McDowell, & Montgomery, 2013; Taras, 2002; van Gennip, Segers, & Tillema, 2009; Wiliam, 2011; and others).

This participative assessment strategy (Brew, Riley, and Walta, 2009) is “an arrangement for learners to consider and specify the level, value, or quality of a product or performance of other equal-status learners” (Topping, 2009, p. 20). Students assess the work of their peers according to established criteria which can be defined by the teacher or generated by students themselves. Peer feedback is usually reciprocal between the assessing and the assessed students.

Peer assessment vs. teacher-induced assessment

Peer assessment (PA) offers several distinct advantages when compared to traditional teacher-driven assessment methods, where students typically receive results solely based on the evaluations of teachers or tutors. Research highlights a range of benefits of PA for students' learning and development.

Firstly, PA can deepen students' understanding of the subject matter by encouraging them to engage more critically with the material. It also enhances their ability to provide constructive feedback, fostering a more collaborative and participatory learning environment. As students assess their peers, they develop evaluative competencies, critical thinking, and self-reflection skills, which contribute to their overall academic growth (McDowell et al., 2011; Nicol, Thomson, & Breslin, 2013).

Moreover, PA promotes a sense of responsibility for one's learning (Landry, Jacobs, & Newton, 2014) and encourages students to take ownership of both their learning process and outcomes (González de Sande & Godino-Llorente, 2014; Liu & Li, 2014; van Gennip, Segers, & Tillema, 2009). This sense of responsibility is further supported by PA's capacity to make students more self-directed, motivated, and involved, not only in the learning process but also in the assessment itself (Kim, 2009; Cho, Schunn, & Wilson, 2007;

Gielen et al., 2011; Papinczak et al., 2005; van Zundert, Sluijsmans, & van Merriënboer, 2010).

Additionally, PA encourages reflection, discussion, and collaboration among students (Lladó et al., 2014; Spiller, 2009; Strijbos & Sluijsmans, 2010), which are key elements of peer learning, collaborative learning, and problem-based learning (Sluijsmans et al., 2001). Through this process, students develop the skills to apply assessment standards and criteria independently, reducing their reliance on teachers for evaluation (Spiller, 2009).

In summary, peer assessment offers significant educational benefits by fostering critical thinking, enhancing learning ownership, promoting student collaboration, and encouraging self-reflection, all of which contribute to a more engaging and participatory learning environment.

The relatively long list of confirmed benefits of peer assessment led some authors to rather optimistic conclusions characterizing peer assessment “to be even more effective than lecturer evaluation” (McConlogue, 2015). However, research literature publishes enough contradictory evidence concerning the helpfulness and support of peer feedback (Mumm et al., 2016). Several factors can undermine or even prevent the successful implementation of peer assessment (PA) in educational settings. One major obstacle is students' resistance to PA, as they often do not perceive it as supportive or credible (Moore & Teather, 2013; van Zundert, Sluijsmans, & van Merriënboer, 2010). Research shows that students may lack trust in the effectiveness of peer evaluation (Chang et al., 2011; Cho, Schunn, & Wilson, 2006; Dancer & Dancer, 1992; Marsh, Jayasinghe, & Bond, 2008; Elander, 2004; Ghorpade & Lackritz, 2001), which can lead to reluctance in engaging with the process. Additionally, many students lack the necessary expertise to assess their peers' work effectively (Mumm et al., 2016), which further compromises the quality and reliability of PA.

Another challenge is that students can exhibit extremes in their evaluations—either being overly benevolent or excessively critical—both of which can demotivate their peers and reduce the overall constructive value of feedback (Cartney, 2010). Concerns about being assessed themselves can also affect the objectivity and validity of PA, as students may worry about retaliation or biased assessments (Cartney, 2010).

Furthermore, many students have limited experience with alternative forms of assessment, which can contribute to hesitancy and lack of engagement with the PA process. In some cases, peers may not be sufficiently critical, leading to feedback that lacks depth and does not offer meaningful insights for improvement. The poor administration of results and inadequate choice of digital tools for collecting and processing assessments also pose significant challenges to the effectiveness of PA. Lastly, insufficient analysis of qualitative feedback and a lack of proper facilitation of student interactions can hinder the constructive value of peer assessments (Arnold et al., 2005, 2007; Knowd & Daruwalla, 2003).

In sum, these factors—ranging from student resistance and lack of expertise to logistical and technological limitations—can significantly disrupt the successful implementation of peer assessment, calling for careful consideration and strategic planning to address these challenges.

For the sake of objectivity, it is important to also mention that several research studies have highlighted the benefits of teacher-induced assessment. Teacher-induced assessment is often viewed as more objective and consistent (Mumm et al., 2016), as teacher assessments tend to be more reliable and easier to standardize across different students and groups. However, one potential limitation of teacher-induced assessments is that they can be less interactive, which may result in reduced student engagement and fewer opportunities for students to take ownership of their learning.

Given these considerations, combining peer and teacher assessments may offer the best of both worlds. While peer assessment promotes student involvement, reflection, and critical thinking, teacher assessment ensures fairness and accuracy (Bukowski, Castellanos, & Persram, 2017; Strijbos & Sluijsmans, 2010; Sluijsmans et al., 2001). This hybrid model also allows for the triangulation of feedback, which can enhance the overall quality and reliability of evaluations.

Thus, while each assessment method has its own merits, research suggests that peer assessment can serve as a valuable complement to traditional teacher assessment. By incorporating PA, educators can foster a more participatory and reflective learning environment. This approach requires a classroom culture characterized by supportive, collaborative relationships, where students recognize that they share responsibility for both their own and their peers' learning (van Gennip, Segers, & Tillema, 2009).

Towards valid, reliable and credible peer assessment

For decades, there has been a continuous discussion about the validity, reliability and credibility of not only peer assessment but all learning-oriented assessment methods. To ensure peer assessment consistency, validity, reliability and credibility, the following measures were proposed and tested in numerous studies:

- **formulating clear and precise evaluation criteria** to reduce bias and errors in grading (Elander, 2004) and including students in the process (Nulty, 2008, 2011; Rust, Price, & O'Donovan 2003);
- **providing initial training in peer assessment** procedures as a means of criteria calibration (Chang et al., 2011; Falchikov, 2007; Ibarra Saiz & Rodríguez Gómez, 2014; van Zundert, Sluijsmans, & van Merriënboer, 2010);
- **appointing more peer assessors of one paper/performance** (Elander, 2004) – the strategies of student grouping or choosing assessors at random, as well as inviting blind (anonymous) assessors or peer assessors from different backgrounds (Chang et al., 2011; Marsh, Jayasinghe, & Bond, 2008) have been proved as effective;

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- keeping peer assessment **anonymous** to minimize peer pressure, favouritism or fear of disapproval (Mumm et al., 2016; Nicol, 2011; Panadero & Brown, 2017; Raes et al., 2015);
 - careful **monitoring** of the peer assessment process (Andrade & Du, 2007; Falchikov, 2007; Topping, 2009),
 - providing students with an opportunity to use peer feedback to improve their final work (Falchikov, 2007; Mumm et al., 2016; Wanner & Palmer, 2018);
 - avoiding superficial, self-serving tasks with questionable objectives and impact, e.g. when the teacher uses peer assessment just to check attendance in the classroom (as described in Mumm et al., 2016),
 - peer feedback should be constructive, pointing out positive as well as negative aspects of the assessed work with further recommendations for improvements.

Digitally-assisted peer assessment

Numerous authors have documented the effectiveness of peer evaluation using digital tools (Bukowski et al., 2017; Cheng et al., 2015; Lugosi, 2010; Seifert & Feliks, 2019 and others). Digital tools allow for comfortable and efficient collecting, sorting, analysing, and storing of peer evaluations and secure anonymous feedback, which can reduce biases. Nowadays, assessors can choose from multiple web-based tools (Chang et al., 2011) or specialized digital tools, e.g. CASPAR (CEMP, 2008) or Peers (Ngu, Shepherd, & Magin, 1995). However, in regular classrooms, any survey-generating applications such as GoogleForms, Mentimeter, Survio, Blinreview, etc. can be used as effectively.

Research part

Research context

The presented research study forms part of a broader effort by the author's institution to systematically innovate and modernise English language teacher education in Slovakia. This initiative aims to implement approaches that are rooted in the professional needs of students and to apply a learner-centred, activity-based principle in education.

The innovation of study programmes is primarily taking place through the development of new educational resources, the gradual creation of a personalised learning environment and the integration of new active teaching methods (particularly collaborative methods). All three movements are facilitated by the systematic introduction of modern digital technologies into teacher training.

In this initiative, peer assessment in foreign language teacher training programmes is seen as an activity which provides teacher students with a unique opportunity to improve their language learning and teaching skills development. In this context, peer assessment allows students to evaluate the language proficiency, teaching strategies, and classroom

management techniques of their peers. Most importantly, students experience and become familiar with new techniques that can later broaden their pedagogical repertoire.

The incorporation of new active teaching methods is mainly being realised through the introduction and testing of various collaborative methods, including alternative forms of assessment, with a particular focus on the deliberate integration of peer feedback into the final evaluation of courses. Vančová (2022a,b) studied “the perception of the university-level English language learners towards their peers in the process of pronunciation training, as well as their readiness to benefit from this form of learning“. Pokrivčák (2024) successfully tested „the applicability of summative peer assessment as an innovative approach within Anglophone literature courses“. In this study, the applicability and the level of agreement between peer-induced and teacher-induced assessments is measured. Regardless of the existing or future research, the complete substitution of formal teacher assessment by peer assessment is not planned.

Research objectives

- 1) to compare the summative evaluation from the lecturer (gold standard) with the peer assessments and indicate the level of its agreement (correlation),
- 2) to observe the willingness of peer assessors to provide verbal assessment
- 3) to verify the reliability/applicability of peer evaluation using digital tools in teacher training courses.

Research methodology

When comparing different measuring or rating techniques (either with a nominal rating scale or a continuous rating scale), researchers may choose from several simple methods:

- basic statistics of the difference in methods (mean and standard deviation)
- t-test of comparison of paired samples
- U-test
- the intraclass correlation coefficient, ICC,
- the concordance correlation coefficient CCC (according to Lin et al., 2002).

More complex **concordance analysis** is used when research needs to establish the validity of a new diagnostic method based on measuring its agreement with the already standardized method (Iglesias Pérez, Vidal-Puga, & Pino Juste, 2022; Kwiecien, Kopp-Schneider, & Blettner, 2011). The measured levels of near equivalence can be presented visually, e.g. point-cloud plots or Bland-Altman diagram (Bland & Altman, 1986) or quantitatively, e.g. the Pearson correlation coefficient or Cohen’s kappa. Concordance analysis cannot be used to judge the correctness of measuring or rating techniques; rather, it shows the degree to which different measuring or rating techniques agree with

each other. The appropriate method for concordance analysis depends on the type of scale used by the measuring or rating techniques that are to be compared.

To fulfil the research objectives of the presented study, basic statistical methods (means, standard deviations, Pearson correlation coefficient r) were used.

Participants, research sample and research tool

The research study took place within the course Teaching English to Learners with Special Educational Needs in the summer semester 2023/24 (February - May 2024). All 29 students enrolled in the course took a voluntary part in the research.

During the last 3 years before the research, all participating students attended several subjects where they trained in basic peer-assessment skills (courses such as Academic writing and presentation skills, a series of subjects focused on conducting and presenting students' research mini projects, and the course on Anglophone children's literature where they are supposed to present and peer-evaluate their interpretations of chosen literary texts).

During the first classroom session on the first week of the semester, the enrolled students were orally informed about the course objectives, syllabus and evaluation criteria. At the same time, they were presented with the research, its objectives, procedures, schedule and ways of collecting and processing research data. Students could express or withdraw their consent to include their evaluation sheets in a research sample. In addition, the teacher presented the evaluation form and discussed with students their questions and comments. During this discussion, students explicitly asked for their evaluation sheets to be anonymized.

The peer evaluation form (research tool) consisted of four items:

- 1) Name the activities from the presentations you consider as useful. (compulsory)
- 2) Ask the presenter one question about the topic (compulsory)
- 3) Mark the presentation. (compulsory)
- 4) Your additional comments: (optional)

In item 3, the evaluator had to provide a summative assessment of the observed performance. Both the lecturer and peer-evaluators used the standardized evaluation scale: A = excellent; B = very good; C = good, D = satisfying, E = sufficient, Fx = failed.

In the fourth item "comments", students were given space to verbally explain their evaluation in item 3 (summative evaluation), as well as comments and additional questions about the presentation. Completion of this item was optional and its completion, if it provided verbal commentary on the summative evaluation, was assessed as the evaluator's willingness to provide a formative evaluation. Based on their previous experience with peer assessments, students were expected to provide their constructive verbal feedback in as many details as possible. In Table 1, we provide an example of a qualitative peer feedback assessment that students are used to working with during their studies.

For this study, only items 3 and 4 were analysed.

In concord with the agreed course schedule, students performed their presentations during the last three classroom sessions in front of their peers (as well as the teacher). Simultaneously, they evaluated the performances of other students (along with the teacher). The number of peer evaluations per performance ranged from 20 to 29. On average, each performance was evaluated by nearly 24 students (the precise mean was 23.91). Some students evaluated all 23 performances, while two students evaluated less than 15 presentations. On average, each student submitted 19 peer evaluation forms (the mean was 18.96).

Table 1: The example of a rating form for evaluation of qualitative peer feedback

Evaluation of peer feedback	Score	Characteristics
Insufficient	0	Too brief, lacks concrete information and constructive remarks, includes “naïve” and “lazy” expressions without material evidence, such as “It was nice”, “It was great”, “A good job”, “I liked the presentation very much”, etc.
Adequate	1	specific, direct, clear and unambiguous, it may provide suggestions for further improvements, questions for the presenter may be included
Valuable / above-average	2	generally, better than average feedback, adequately long and detailed, consists of clear, unambiguous, and constructive remarks, language is specific and substantiate, questions for the presenter are posed, it provides suggestions for further improvements

After presenting, students had up to 3 weeks to make corrections and amend their presentations based on their peers’ feedback and upload them as their final seminar work for evaluation by the teacher for the exam.

During these three sessions, 23 students performed their presentations which were evaluated at once by the teacher and peers. The number of peer evaluators varied from session to session. In total, 550 peer evaluations were submitted and collected via GoogleForms. Anonymized outputs from filled-in evaluations were then uploaded to Moodle to be visible to all students. In each output, students could identify the name of the presenter but not the authors of individual evaluations and comments.

Research results

A) Comparing summative assessments

In the first step, verbal summative assessments provided by both the lecturer and peer assessors were rescaled as follows:

A = excellent = 1 point; B = very good = 2 points; C = good = 3 points; D = satisfying = 4 points; E = sufficient = 5 points; Fx = failed = 6 points.

Out of the total of 550 peer assessments included in the research sample; more than two thirds (374 forms, 68%) indicated mark A (excellent). Another quarter of the performances (142 assessment forms, 25.81%) were rated mark B (very good). Only 32 peer assessment forms (5.81%) indicated a mark of C (good). Other grades occurred only sporadically in the peer assessment forms. There was 1 peer assessment form marked D (satisfying) and 1 peer assessment form marked Fx (failed). The arithmetic mean of peer assessments was 1.38. The extremely uneven distribution of marks indicates a high likelihood of benevolent assessments produced by some peer assessors. 5 students assessed all performances by mark A, thus negating any discriminatory function of the assessment. A responsible interpretation of the results obtained would require the implementation of in-depth qualitative questioning. The numerical data from summative peer assessments are summarized in Table 2 and the overview of statistic measurements is provided in Table 3.

Tab.2: Summary of summative evaluations in peer assessment forms (PAF)

	PA F	A	%	B	%	C	%	D	%	E	%	Fx	%
P1	22	11	50.00	9	40.90	2	9.09	0	0.00	0	0.00	0	0.00
P2	22	15	68.18	6	27.27	1	4.54	0	0.00	0	0.00	0	0.00
P3	23	20	86.96	3	13.04	0	0.00	0	0.00	0	0.00	0	0.00
P4	23	20	86.96	3	13.04	0	0.00	0	0.00	0	0.00	0	0.00
P5	23	17	73.91	6	26.08	0	0.00	0	0.00	0	0.00	0	0.00
P6	22	16	72.72	5	22.72	1	4.54	0	0.00	0	0.00	0	0.00
P7	23	16	69.56	5	21.73	2	8.69	0	0.00	0	0.00	0	0.00
P8	23	15	65.22	4	17.39	4	17.39	0	0.00	0	0.00	0	0.00
P9	23	10	43.48	10	43.48	3	13.04	0	0.00	0	0.00	0	0.00
P10	23	12	48.69	9	39.13	2	8.69	0	0.00	0	0.00	0	0.00
P11	24	17	70.83	5	20.83	1	4.16	0	0.00	0	0.00	1	4.16
P12	23	22	95.65	1	4.38	0	0.00	0	0.00	0	0.00	0	0.00
P13	23	13	56.5	9	39.1	1	4.38	0	0.00	0	0.00	0	0.00
P14	25	15	0.60	9	36.00	1	4.00	0	0.00	0	0.00	0	0.00
P15	26	19	73.07	7	26.92	0	0.00	0	0.00	0	0.00	0	0.00
P16	26	17	65.38	6	23.07	3	11.54	0	0.00	0	0.00	0	0.00
P17	26	22	84.61	4	15.38	0	0.00	0	0.00	0	0.00	0	0.00
P18	23	14	60.86	8	34.78	1	4.38	0	0.00	0	0.00	0	0.00
P19	27	24	88.88	3	11.11	0	0.00	0	0.00	0	0.00	0	0.00
P20	26	12	46.15	8	30.76	6	23.07	0	0.00	0	0.00	0	0.00
P21	20	18	90.00	2	10.00	0	0.00	0	0.00	0	0.00	0	0.00
P22	29	21	72.41	8	27.58	0	0.00	0	0.00	0	0.00	0	0.00
P23	25	8	32.0	12	48.00	4	16.00	1	4.00	0	0.00	0	0.00
Total	550	374	68.00	142	25.81	32	5.81	1	0.18	0	0.00	1	0.18

Tab.3: Statistic measures for peer-induced summative assessments

SD= 0.23, 95% CI [0.18, 0.33]

Parameter	Value
Population standard deviation (σ)	0.227
Sample standard deviation (S)	0.2321
SD confidence interval	[0.1795,0.3286]
Population variance (σ^2)	0.05154
Sample variance (S ²)	0.05389
Sample size (n)	23

At the same time as the students, the teacher evaluated all the presentations (n = 23 evaluations of 23 presentations), who gave 8 presentations a grade of A (34.78%), 5 presentations a grade of B (21.73%), 6 presentations received a grade of C (26.08), and 4 presentations received a grade of D (17.39%). Neither did the teacher give anyone a grade of E, nor did the teacher use a grade of Fx as opposed to peer assessment. The arithmetic mean of teacher’s assessments was 2.26. The above results show that the teacher was significantly more rigorous in his/her assessment - on average by one qualifying grade (0.85 points). However, as with peer assessments, the scale of grades awarded by the teacher deviated from the normal distribution of values, with the highest proportion (one third, 34.78%) being A grades and E and D grades not appearing on the scale at all. Nominal values and means of teacher-induced assessments are given in Table 4 (column 2) and the overview of basic statistical measurements is in Table 5.

Tab. 4: Comparison of peer-induced assessments and teacher-induced assessments

	The mean of peer assessment*	Teacher’s assessment*	Difference (real numbers)	Difference (absolute numbers)
P1	1.59	2	-0.41	0.41
P2	1.36	2	-0.64	0.64
P3	1.13	1	+0.13	0.13
P4	1.13	1	+0.13	0.13
P5	1.26	1	+0.26	0.26
P6	1.21	1	+0.21	0.21
P7	1.39	3	-1.61	1.61
P8	1.52	3	-1.48	1.48
P9	1.69	4	-2.31	2.31
P10	1.56	4	-2.44	2.44
P11	1.50	3	-1.50	1.50
P12	1.04	1	-0.04	0.04
P13	1.48	3	-1.52	1.52

P14	1.44	2	-0.56	0.56
P15	1.27	2	-0.73	0.73
P16	1.46	3	-1.54	1.54
P17	1.15	1	+0.15	0.15
P18	1.43	4	-2.57	2.57
P19	1.11	1	+0.11	0.11
P20	1.77	3	-1.23	1.23
P21	1.10	1	+0.10	0.10
P22	1.27	2	-0.73	0.73
P23	1.92	4	-2.08	2.08
Mean	1.38	2.26	-0.85	0.97

Tab. 5: Basic statistic measurements for teacher-induced summative assessments

SD= 1.14, 95% CI [0.88, 1.61]	
Parameter	Value
Population standard deviation (σ)	1.1119
Sample standard deviation (S)	1.1369
SD confidence interval	[0.8793, 1.6091]
Population variance (σ^2)	1.2363
Sample variance (S ²)	1.2925
Sample size (n)	23

The Pearson correlation coefficient was used to determine the degree of agreement between peer assessments and teacher ratings. Results ($r = 0.8439$, $p \leq 0.001$) indicated that there is a **significant large positive relationship** between the two observed types of assessments. A summary of statistical measurement of correlation is presented in Tab. 6 and visualized in Graph 1.

Added verbal assessments

The last item of the peer assessment form was optional and peer assessors were allowed to elaborate on their evaluation by verbal comments – in this item without assessment criteria (Jones & Alcock, 2014). This expectation was reinforced by the fact that in previous courses with peer assessment students had to complete verbal evaluation as a mandatory part of the form, and therefore we expected this step to be relatively automatic. Rather surprisingly, only 341 peer assessment forms (62.00%) included verbal assessments. We assess this result as a relatively low willingness of students to provide extended peer assessment if this is not conditional on their benefit. As a highly positive outcome can be considered the finding that out of 341 added peer

assessments, 203 were valuable, and constructive, providing adequate details. 118 added assessments were adequate, and 20 were insufficient, lacking effective feedback and constructive suggestions. When using the scale used in other subjects with peer assessment (insufficient = 0 pts, adequate = 1 point, valuable = 2 points), the mean score for added assessments was 1.53. The results (summarized in Table 7) proved the fact that those students who decided to provide their added (verbal) peer assessment, manifested well-developed evaluation skills.

Tab. 6: Statistic measurement of the correlation between peer- and teacher’s assessments

Parameter	Value
Pearson correlation coefficient (r)	0.8439
r ²	0.7121
P-value	4.205e-7
Covariance	0.2227
Sample size (n)	23
Statistic	7.2074

Graph 1: Visualization of correlation between teacher’s and peer assessments

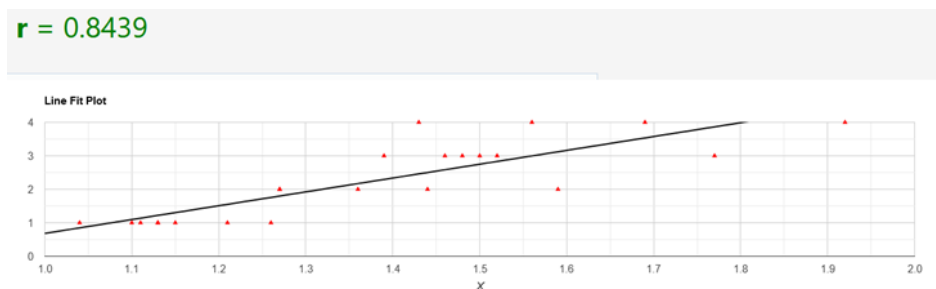


Table 7: Summary of data for added (verbal) peer assessment

Evaluation of added peer feedback	Score	Number of PAF	%
Insufficient	0	20	5.86
Adequate	1	118	34.60
Valuable / above-average	2	203	59.53
Total		341	100.00
Mean	1.53		

Conclusions and discussion

In the recent study, the level of agreement between peer and lecturer’s assessments, as well as the willingness of peer assessors to provide an added (verbal) peer assessment. As a secondary objective, the comfortability of a chosen digital tool (Google Forms) for collecting and processing peer assessments was tested.

While studies in other fields of education are available, e.g. in medicine and health care education (Arnold et al., 2005; 2007), in business and management (Ghorpade & Lackritz, 2001; Dancer & Dancer, 1992; Tiew, 2010), in hospitality education (Lugosi, 2010; Knowd & Daruwalla, 2003); in science education (Stainer, 1997; Walvoord et al., 2008), engineering education (Hersame, Luna, & Light, 2004; Power & Tanner, 2023; Willey & Freeman, 2006) similar studies focused on teacher training courses is relatively scarce (Al-Barakat, & Al-Hassan, 2009; Cabello & Topping, 2020; Li et al., 2020; Ratminingsih, Artini, & Padmadewi, 2017). This adds to the innovative value and importance of the present study.

First, our results confirmed a significant large positive relationship between the two observed types of assessments ($r = 0.8439$, $p \leq 0.001$). This finding corresponds with multiple previously published studies (González de Sande & Godino-Llorente, 2014; Hodgson et al., 2014).

Second, collected peer assessments showed significantly better scores for peers (compared to teacher’s assessments) and an extremely uneven distribution of values with a strong tendency to better scores, which could indicate a high likelihood of benevolent assessments produced by some peer assessors. The current results proved peer’s tendency to evaluate students’ work by better marks or higher scores. Therefore, we cannot agree with McConlogue (2015) who claimed peer evaluation is more objective, effective and credible than a lecturer’s evaluation. Our results were the opposite. On the

other side, the present results do not correspond with Cartney's (2010) conclusions which argued that peer feedback was considered to be unsupportive because peers were overly critical assessors.

Third, the results confirmed a relatively low level of willingness to provide added (verbal) peer evaluation if it is not asked for explicitly and if it does not condition their own scores and study success.

Fourth, as students with previous repeated experience with peer assessment, research participants were skilled in providing adequate and valuable peer feedback. Similar results were published by Gielen et al., 2011; Oren, 2012; van Zundert, Sluijsmans, & van Merriënboer, 2010; and others. The effect of previous training on the extent and quality of peer assessment was previously discussed and proved by Chang et al., 2011; Pokrivčák, 2024; Sluijsmans et al., 2001; Falchikov & Goldfinch, 2000; Oren, 2012; and others.

In addition, the seamless research procedure confirmed that computer-assisted peer assessment was comfortable and effective enough to be used as a formal assessment procedure in higher education.

Limitations

Although the number of works evaluated was very high (N=550), and the sample of students is representative of the usual enrolment in the degree studied (N = 29), the study is reduced to one educational institution and one academic year.

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References

- Al-Barakat, A., & Al-Hassan, O. (2009). Peer assessment as a learning tool for enhancing student teachers' preparation. *Asia-Pacific Journal of Teacher Education*, 37(4), 399-413. <https://doi.org/10.1080/13598660903247676>.
- Andrade, H., & Du, Y. (2007). Student responses to criteria-referenced self-assessment. *Assessment & Evaluation in Higher Education*, 32(2), 159-181.
- Arnold, L., Shue, C. K., Kritt, B., Ginsburg, S., & Stern, D. T. (2005). Medical students' views on peer assessment of professionalism. *Journal of General Internal Medicine*, 20(9), 819-824. <https://doi.org/10.1111/j.1525-1497.2005.0162.x>.

-
- Arnold, L., Shue, C. K., Kalishman, S., Prislin, M., Pohl, C., Pohl, H., & Stern, D. T. (2007). Can there be a single system for peer assessment of professionalism among medical students? A multi-institutional study. *Academic Medicine*, 82(6), 578-586. <https://doi.org/10.1097/ACM.0b013e3180555d4e>.
- Blair, A., & McGinty, S. (2013). Feedback-dialogues: exploring the student perspective. *Assessment & Evaluation in Higher Education*, 38(4), 466-476.
- Bland J. M., & Altman, D. G. (1986). Statistical methods for assessing agreement between two methods of clinical measurement. *The Lancet*, 327, 307-310. DOI: 10.1016/S0140-6736(86)90837-8.
- Brew, C., Riley, P., & Walta, C. (2009). Education students and their teachers: comparing views on participative assessment practices. *Assessment & Evaluation in Higher Education*, 34(6), 641-657.
- Bukowski, W. M., Castellanos, M., Persram, R. J. (2017). The current status of peer assessment techniques and sociometric methods. *New Directions for Child and Adolescent Development*, 157, 75-82. DOI: 10.1002/cad.20209
- Cabello, V. M., & Topping, K. J. (2020). Peer assessment of teacher performance. What works in teacher education? *International Journal of Cognitive Research in Science, Engineering and Education*, 8(2), 121-132. DOI: 10.5937/IJCRSEE2002121C.
- Carless, D. (2007). Learning-oriented assessment: conceptual bases and practical implications. *Innovations in Education and Teaching International*, 44(1), 57-66.
- Cartney, P. (2014). Exploring the use of peer assessment as a vehicle for closing the gap between feedback given and feedback used. *Assessment & Evaluation in Higher Education*, 35, 551-564. DOI: 10.1080/02602931003632381.
- CEMP. (2008). About CASPAR. Origins. <http://www.cemp.ac.uk/caspar/origins.html>.
- Chang, C., Tseng, K., Chou, P., & Chen, Y. (2011). Reliability and validity of Web-based portfolio peer assessment: A case study for a senior high school's students taking computer course. *Computers & Education*, 57(1), 1306-1316. <https://doi.org/10.1016/j.compedu.2011.01.014>.
- Cho, K., Schunn, C., & Wilson, R. (2006). Validity and reliability of scaffolded peer assessment of writing from instructor and student perspectives. *Journal of Educational Psychology*, 98(4), 891-901. <https://doi.org/10.1037/0022-0663.98.4.891>.
- Dancer, W. T., & Dancer, J. (1992). Peer rating in higher education. *Journal of Education for Business*, 67(5), 306-309.
- Elander, J. (2004). Student assessment from a psychological perspective. *Psychology Learning & Teaching*, 3(2), 114-121. <https://doi.org/10.2304/plat.2003.3.2.114>.

-
- Ellery, K. (2008). Assessment for learning: a case study using feedback effectively in an essay-style test. *Assessment & Evaluation in Higher Education*, 33(4), 421–429.
- Falchikov, N. (2007). The place of peers in learning and assessment. In D. Boud, & N. Falchikov (Eds.), *Rethinking assessment for higher education: Learning for the longer term* (pp. 128–143.). London: Routledge.
- Falchikov, N., & Goldfinch, J. (2000). Student peer assessment in higher education: a meta-analysis comparing peer and teacher marks. *Review of Educational Research*, 70(3), 287-322. <https://doi.org/10.3102/00346543070003287>.
- Ghorpade, J., & Lackritz, J. (2001). Peer evaluation in the classroom: A check for sex and race/ethnicity effects. *Journal of Education for Business*, 76(5), 274-281. <https://doi.org/10.1080/08832320109599648>
- Gielen, S., Dochy, F., Onghena, P., Struyven, K. & Smeets, S. (2011). Goals of peer assessment and their associated quality concepts. *Studies in Higher Education*, 36(6), 719-735. <https://doi.org/10.1080/03075071003759037>.
- González de Sande, J.C., & Godino-Llorente, J.I. (2014). Peer assessment and self-assessment: Effective learning tools in higher education. *International Journal of Engineering Education*, 30, 711-721.
- Hersame, M. C., Luna, M., & Light, G. (2004). Implementation of interdisciplinary group learning and peer assessment in a nanotechnology engineering course. *Journal of Engineering Education*, 93(1), 49–57. DOI:10.1002/j.2168-9830.2004.tb00787.x.
- Hodgson, P., Chan, K., & Liu, J. (2014). Outcomes of synergetic peer assessment: First-year experience. *Assessment and Evaluation in Higher Education*, 39, 168-178. DOI: 10.1080/02602938.2013.803027
- Ibarra Saiz, M.S., & Rodríguez Gómez, G. (2014). Participatory assessment methods: an analysis of the perception of university students and teaching staff (in Spanish). *Journal of Educational Research*, 32, 339-362. DOI: 10.6018/rie.32.2.172941
- Iglesias Pérez, M. C., Vidal-Puga, J., & Pino Juste, M. R. (2022). The role of self and peer assessment in higher education. *Studies in Higher Education*, 47(3), 683-692. DOI: 10.1080/03075079.2020.1783526.
- Jones, I., & Alcock, L. (2014) Peer assessment without assessment criteria. *Studies in Higher Education*, 39, 1774-1787. DOI: 10.1080/03075079.2013.821974
- Kearney, S. (2013). Improving engagement: the use of ‘authentic self-and peer-assessment for learning’ to enhance the student learning experience. *Assessment & Evaluation in Higher Education*, 38(7), 875–891.
- Kim, M. (2009). The impact of an elaborated assessee’s role in peer assessment. *Assessment & Evaluation in Higher Education*, 34(1), 105-114. <https://doi.org/10.1080/02602930801955960>.



-
- Knowd, I., & Daruwalla, P. (2003). Peer assessment in hospitality education. *Journal of Teaching in Travel and Tourism*, 3(1), 65-85. DOI: 10.1300/J172v03n01_05.
- Kwiecien, R., Kopp-Schneider, A., & Blettner, M. (2011). Concordance analysis – part 16 in Series on Evaluation of Scientific Publications. *Deutsches Ärzteblatt International*, 108(30), 515–521. DOI: [10.3238/arztebl.2011.0515](https://doi.org/10.3238/arztebl.2011.0515). <https://pubmed.ncbi.nlm.nih.gov/articles/PMC3165924/>
- Landry, A., Jacobs, S., & Newton, G. (2014). Effective use of peer assessment in a graduate level writing assignment: A case study. *International Journal of Higher Education*, 4(1), 38-51. <https://doi.org/10.5430/ijhe.v4n1p38>.
- Li, H., Xiong, Y., Hunter, C. V., Guo, X., & Tywoniw, R. (2020). Does peer assessment promote student learning? A meta-analysis. *Assessment & Evaluation in Higher Education*, 45(2), 193-211. <https://doi.org/10.1080/02602938.2019.162>.
- Lin, L., Hedayat, A.S., Sinha, B., Yang, M. (2002) Statistical Methods in Assessing Agreement. *Journal of the American Statistical Association*, 97, 257-270. DOI: 10.1198/016214502753479392
- Liu, X. & Li, L. (2014). Assessment training effects on student assessment skills and task performance in a technology-facilitated peer assessment. *Assessment & Evaluation in Higher Education*, 39(3), 275-292. <https://doi.org/10.1080/02602938.2013.823540>.
- Lladó, A., Soley, L., Sansbelló, R., Pujolras, G., Planella, J., Roura-Pascual, N., & Moreno, L. (2014). Student perceptions of peer assessment: An interdisciplinary study. *Assessment & Evaluation in Higher Education*, 39(5), 592-610. <https://doi.org/10.1080/02602938.2013.860077>.
- Lugosi, P. (2010). Computer-assisted self and peer assessment: Applications, challenges and opportunities. *Journal of Hospitality Leisure Sport & Tourism Education*, 9(1). DOI: 10.3794/johlste.91.253.
- Marsh, H. W., Jayasinghe, U. W., & Bond, N. W. (2008). Improving the peer-review process for grant applications: reliability, validity, bias, and generalizability. *American Psychologist*, 63(3), 160-168. <https://doi.org/10.1037/0003-066X.63.3.160>.
- McConlogue, T. (2015) Making judgements: investigating the process of composing and receiving peer feedback. *Studies in Higher Education*, 40, 1495-1506. DOI: 10.1080/03075079.2013.868878.
- McDowell, L., Wakelin, D., Montgomery, C., & King, S. (2011). Does assessment for learning make a difference? The development of a questionnaire to explore the student response. *Assessment & Evaluation in Higher Education*, 36(7), 749–765.
- Moore, C., & Teather, S. (2013). Engaging students in peer review: feedback as learning. *Issues in Educational Research*, 23(2), 196–211.




-
- Mumm, K., Karm, M., & Remmik, M. (2016). Assessment for learning: Why assessment does not always support student teachers' learning. *Journal of Further and Higher Education*, 40(6), 780–803. <http://dx.doi.org/10.1080/0309877X.2015.1062847>
- Ngu, A. H. H., Shepherd, J., & Magin, D. (1995). Engineering peers: a computer-assisted approach to the development of peer assessment system. *Workshop on Research and Development in Higher Education 18: Blending Tradition and Technologies*, Rockhampton, Queensland.
<http://www.cse.unsw.edu.au/~jas/research/papers/herdsa95/index.html>.
- Nicol, D. (2011). *Peer Evaluation in Education Review*. Bristol, UK: JISC Final Report.
- Nicol, D., Thomson, A., & Breslin, C. (2013). Rethinking feedback practices in higher education: a peer review perspective. *Assessment and Evaluation in Higher Education*, 39(1), 1–21.
- Nulty, D. (2008). *A Guide to Peer and Self Assessment: Approaches and Practice Strategies for Academics*. Griffith University.
https://www.griffith.edu.au/__data/assets/pdf_file/0016/142108/GuidePeerSelfAssessment-Long.pdf
- Nulty, D. (2011). Peer and self-assessment in the first year of university. *Assessment & Evaluation in Higher Education*, 36(5), 493–507.
- Oren, F. S. (2012). The effects of gender and previous experience on the approach of self and peer assessment: A case from Turkey. *Innovations in Education and Teaching International*, 49(2), 123-133. <https://doi.org/10.1080/14703297.2012.677598>
- Panadero, E., & Brown, G.T.L. (2017). Teachers' reasons for using peer assessment: positive experience predicts use. *European Journal of Psychology of Education*, 32, 133-156. DOI: 10.1007/s10212-015-0282-5.
- Papinczak, T., Young, L., Groves, M., & Haynes, M. (2005). An analysis of peer, self, and tutor assessment in problem-based learning tutorials. *Medical Teaching*, 29(5), 122-132. <https://doi.org/10.1080/01421590701294323>
- Pokrivčák, A. (2024). Computer-assisted peer assessment in university literary courses. *EDULEARN24 Conference Proceedings* (pp. 8026-8034). Palma: IATED.
- Power, J. R., & Tanner, D. (2023). Peer assessment, self-assessment, and resultant feedback: an examination of feasibility and reliability. *European Journal of Engineering Education*, 48(4), 615–628. <https://doi.org/10.1080/03043797.2023.2185769>.
- Raes, A., Vanderhoven, E., Schellens, T. (2015) Increasing anonymity in peer assessment by using classroom response technology within face-to-face higher education. *Studies in Higher Education*, 40, 178-193. DOI: 10.1080/03075079.2013.823930

-
- Ratminingsih, N. M., Artini, L. P., & Padmadewi, N. N. (2017). Incorporating self- and peer assessment in reflective teaching practices. *International Journal of Instruction*, 10(4), 165-184. <https://doi.org/10.1177/0022487105284045>.
- Rust, C., Price, M., & O'Donovan, B. (2003). Improving students' learning by developing their understanding of assessment criteria and processes. *Assessment & Evaluation in Higher Education*, 28(2), 147-164.
- Seifert, T., & Feliks, O. (2019). Online self-assessment and peer assessment as a tool to enhance student-teachers' assessment skills. *Assessment & Evaluation in Higher Education*, 44(2), 169-185. DOI:10.1080/02602938.2018.1487023.
- Sluijsmans, D., Moerkerke, G., Dochy, F., & van Merriënboer, J. J. G. (2001). Peer assessment in problem-based learning. *Studies in Educational Evaluation*, 27(2), 153-173.
- Spiller, D. (2009). Assessment matters: self-assessment and peer assessment. *Teaching Development*, The University of Waikato. http://www.waikato.ac.nz/tdu/pdf/booklets/8_SelfPeerAssessment.pdf
- Stainer, L. (1997). Peer assessment and group work as vehicles for student empowerment: a module evaluation. *Journal of Geography in Higher Education*, 21(1), 95-98.
- Strijbos, J., & Sluijsmans, D. (2010). Unravelling peer assessment: Methodological, functional, and conceptual developments. *Learning and Instruction*, 20(4), 265-269. <https://doi.org/10.1016/j.learninstruc.2009.08.002>
- Taras, M. (2002). Using assessment for learning and learning from assessment. *Assessment & Evaluation in Higher Education*, 27(6), 501-510.
- Tiew, F. (2010). Business students' views of peer assessment on class participation. *International Education Studies*, 3(3), 126-131. <https://pdfs.semanticscholar.org/b28c/9bc6f126592f8f8ee15b6dde21fc9f61323d.pdf>
- Topping, K. J. (2009). Peer assessment. *Theory into Practice*, 48(1), 20-27. <https://doi.org/10.1080/00405840802577569>
- Vančová, H. (2022a). Collaboration and peer feedback in pronunciation training. *EDULEARN22 Conference Proceedings* (s. 9803-9803). Palma: IATED.
- Vančová, H. (2022b). The role of peers in improving English pronunciation. *ICERI 2022 Conference Proceedings* (pp. 8334-8339). Valencia: IATED.
- van Gennip, N. A. E., Segers, M. S. R., & Tillema, H. H. (2009). Peer assessment for learning from a social perspective: The influence of interpersonal variables and structural features. *Educational Research Review*, 4(1), 41-54. <https://doi.org/10.1016/j.edurev.2008.11.002>

-
- van Zundert, M., Sluijsmans, M., & van Merriënboer, J. J. G. (2010). Effective peer assessment processes: Research findings and future directions. *Learning and Instruction*, 20(4), 270-279, 2010. <https://doi.org/10.1016/j.learninstruc.2009.08.004>.
- Walvoord, M. E., Hoefnagels, M. H., Gaffin, D. D., Chumchal, M. M., & Long, D. A. (2008). An analysis of calibrated peer review (CPR) in a science lecture classroom. *Journal of College Science Teaching*, 37, 66–72.
- Wanner, T., Palmer, E. (2018) Formative self-and peer assessment for improved student learning: the crucial factors of design, teacher participation and feedback. *Assessment and Evaluation in Higher Education*, 43, 1032-1047. DOI: 10.1080/02602938.2018.1427698
- Willey, K., & Freeman, M. (2006). Improving teamwork and engagement: the case for self and peer assessment. *Australasian Journal of Engineering Education*, February, 2–19. DOI: 10.3316/aeipt.157674. <https://search.informit.org/doi/10.3316aeipt.157674>.
- Wiliam, D. (2011). What is assessment for learning? *Studies in Educational Evaluation*, 37(1), 3–14.

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in higher education

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