

Modernisation of Terminology Teaching Methods in Interdisciplinary Translation and Interpreting Studies

Terminologijos mokymo metodų modernizavimas tarpdalykinėse vertimo raštu ir žodžiu studijose

MILENA SAZDOVSKA PIGULOVSKA

Ss. Cyril and Methodious University, “Blaze Koneski” Faculty of Philology

ORCID id: <https://orcid.org/0000-0001-9227-4815>

ABSTRACT

The Department of Translation and Interpreting in Skopje, North Macedonia offers undergraduate studies where key competences for translators and interpreters are developed. In addition to translation and interpreting competence, students also develop cultural competence, thematic and domain-specific knowledge, digital skills and generic “soft” skills. Knowledge of terminology plays a key role in the training of translators and interpreters. Hence, terminology is taught as a separate course in several different domain at undergraduate level.

This paper examines the research question whether the applied terminology teaching approach at the author’s department is effective for terminology learning and skills development in students’ opinion. For that purpose, a research project was implemented entitled “Modernisation of Terminology Teaching Methods at Interdisciplinary Translation and Interpreting Studies” in January 2020 – September 2021, which involved teachers on seven terminological courses. This paper provides an overview of the project activities and results of relevance for translation- and interpreting-oriented terminology teaching and learning. Furthermore, the aim of this paper is to present the results of a survey research on the effectiveness of the terminology teaching approach adopted at the author’s department, thus aiming to contribute to improving the terminology teaching design for translation and interpreting education.

KEYWORDS: translation-oriented terminology, terminology course design, terminological competence, terminology teaching, translation and interpreting.

ANOTACIJA

Šiaurės Makedonijoje, Skopjės šventųjų Kirilo ir Metodijaus universiteto Vertimo raštu ir žodžiu katedroje, siūlomos bakalauro studijos, kurių tikslas – ugdyti pagrindines vertėjų raštu ir žodžiu kompetencijas. Be šių kompetencijų, ugdoma ir kultūrinė kompetencija, studentai įgyja teminių ir konkrečios srities žinių, skaitmeninių įgūdžių ir bendrųjų „minkštųjų“ įgūdžių. Rengiant vertėjus raštu ir žodžiu, svarbią reikšmę turi terminologijos žinios, todėl terminologija dėstoma kaip atskiras kelių skirtingų sričių kursas bakalauro studijose.

Šiame straipsnyje nagrinėjamas tiriamasis klausimas, ar, studentų nuomone, Skopjės šventųjų Kirilo ir Metodijaus universiteto Vertimo raštu ir žodžiu katedroje taikomas terminologijos dėstymo metodas yra veiksmingas mokantis terminologijos ir ugdant terminologijos įgūdžius. Tuo tikslu 2020 m. sausio – 2021 m. rugsėjo mėn. buvo įgyvendinamas mokslinių tyrimų projektas „Terminologijos mokymo metodų modernizavimas tarpdalykinėse vertimo raštu ir žodžiu studijose“, kuriame dalyvavo septynių terminologijos kursų dėstytojai. Šiame straipsnyje apžvelgiama projekto veikla ir rezultatai, svarbūs į vertimą raštu ir vertimą žodžiu orientuotam terminologijos mokymui ir mokymuisi. Šio straipsnio tikslas – pristatyti Skopjės šventųjų Kirilo ir Metodijaus universiteto Vertimo raštu ir žodžiu katedroje taikomo terminologijos dėstymo metodo veiksmingumo tyrimo rezultatus, taip siekiant prisidėti prie vertimo raštu ir žodžiu mokymui skirtos terminologijos dėstymo tobulinimo.

ESMINIAI ŽODŽIAI: į vertimą orientuota terminologija, terminologijos kursų rengimas, terminologinė kompetencija, terminologijos mokymas, vertimas raštu ir žodžiu.

1. INTRODUCTION

Terminology is nowadays a separate academic course at numerous universities across the world. Terminology has interdisciplinary nature due to its close relation to other disciplines, such as translation (Cabré 2010; Thelen 2015; Fischer 2020; Fóris 2022), information science and technology (Bowler, Marshman 2012; Ji, Oakes 2019; Hadley et al. 2022; Rothwell et al. 2023), etc. In the past, different authors and terminology teachers applied diverse and often improvised approaches in terminology teaching and thus reported various challenges in this field. Montero Martínez and Faber were among the first to identify a scarcity of bibliography on the best way to teach terminology, which often resulted in teachers applying terminology teaching models they personally observed or experienced during their academic career (Montero Martínez, Faber 2009: 91). Even nowadays, this problem still persists at certain universities.

Knowledge of terminology plays a key role in the training of translators (Kautz 2000: 20; Kelly 2005: 26; Cabré 2010: 358; Montero Martínez, Faber 2019: 1; Fischer 2020: 65) and interpreters (Kalina 2002: 126; Ding 2013: 2). Kaltenböck and Mehlmauer-Larcher (2005) emphasize that the domain of terminology must integrate needs and preferences from the perspective of both students and teachers concerning what and how to teach. It seems that finding the right terminology teaching model can still be challenging as there is no universal solution. Moreover, terminology teaching challenges nowadays seem to evolve around modifying curricula to keep up with the roles translators and interpreters have assumed in the ever-changing translation and interpreting market (Sazdovska Pigulovska, Popovska 2021: 58) and around acquiring a terminological competence in the digital age (Fischer 2020; Li 2023: 760). This puts into perspective a need for re-evaluation of terminology teaching methods with the purpose of greater innovation and integrating new methods affecting the efficacy of learning.

The aim of this paper is to present the methodology and results of a national research project for modernisation of terminology teaching methods at undergraduate translation and interpreting studies, which was implemented at the author's institution. This paper also presents the results of a survey research conducted among students in order to determine the effectiveness of the terminology teaching approach.

2. CONCEPT OF TRANSLATION-ORIENTED TERMINOLOGY

Terminology is one of the pillars for interdisciplinary translation and interpreting studies. Terminological competence in translation refers to the translator's ability to access the knowledge represented by terms as well as to find the best correspondence for the specialised concept in the target language (Montero Martínez, Faber 2019: 4). Montero Martínez and Faber (2009: 92) provide a proposal for acquisition of terminological competence for translator education. Terminological competence is indispensable for the development of general translation (Faber 2004: 479) and interpreting (Stoll 2009: 67) competence and should be in the focus of terminology training programmes.

For translator training programmes, Cabré puts the focus on *translation-oriented terminology* as an orientation that enables students to acquire the

necessary knowledge and strategies to deal with specialised terms adequately and swiftly in a variety of texts (Cabr   1999: 13). Thelen discusses two types of terminological orientations, i.e., *theory-oriented terminology* and *translation-oriented terminology*, whereas translation-oriented terminology acts as a “mediator” between theory-oriented terminology and translation (Thelen 2015: 348–349).

The *translation-oriented approach* is studied by Fischer who emphasizes that terminology theory may contribute to translation studies (Fischer 2022: 8). According to Wright and Wright (1993), translation-oriented terminology should include activities covering different aspects of terminology: knowledge management, language planning, terminology resources, and representation of concept systems. Austerm  hl emphasises the need for a holistic (theoretically-founded, project-oriented, and collaborative) approach to the teaching of terminology and terminology management within translator training programmes (Austerm  hl 2012: 3).

Translation-oriented terminology work (TOT) should enable translators to record, systematise, and consistently use multilingual terminology (Faber, Le  n Ara  z 2021: 590). *Interpreter-oriented terminology work (IOT)* implies terminological preparation for interpreting assignments through tools and software applications (Stoll 2009: 67) and strategies for dealing with specialist terms (Hebenstreit, Soukup-Unterweger 2011: 308).

2.1. Challenges of translation- and interpreting-oriented terminology teaching

The Department of Translation and Interpreting in Skopje offers seven terminological courses at the undergraduate level, which are taught in Macedonian, English, German, and French. Students begin with the introductory course “Preparation for translation and interpreting”, followed by specialised terminology courses in “Law”, “Political studies”, “Economics”, “Medicine”, “ICT terminology”, and “Diplomatic communication”. At some of these courses, however, terminology is not taught by using a full learner-centred approach in key elements comprising terminology course design, such as methodology of teaching, assessment methods, and even skills acquired, accompanied by oblivion of student opinion on learning effectiveness of techniques applied. Hence, a need was perceived to revise and modernise terminology course design and to make initial efforts for greater consolidation on the faculty level and possibly on the

national level. This served as motivation for proposing a research project to the national university committee on research with the purpose to define a systematic terminology teaching methodology and to propose innovated techniques at translation- and interpreting-oriented terminology courses.

The lack of pedagogical and methodological principles in translation teaching in the past affected the status of translation as an academic discipline (Colina 2003). Hence, it is reasonable to assume the same about terminology teaching if the key methodological principles are not systematically defined. A translation-oriented terminological competence can be developed when terminology courses integrate carefully selected teaching objectives, contents, teaching mode, and technology features enabled in the digital age, i.e., in the age of artificial intelligence (Li 2023: 760).

3. AIMS AND METHODS. CRITICAL POINTS OF TERMINOLOGY TEACHING

Key elements of the terminology teaching design at translation studies include: course objectives, content, teaching methodology, and assessment (Montero Martínez, Faber 2009: 2; Alcina 2011: 4). It was initially assumed that the effectiveness of terminology teaching and learning is closely related to integrating a holistic learner-centred approach which includes the key educational elements. This model was used as a basis for implementing the abovementioned research project. In order to analyse the situation with the undergraduate terminological courses, the author performed an initial analysis to establish the critical points of terminology teaching that need improvement.

This paper presents the approach taken at the author's department to overcome the challenges by creating an improved learner-centred environment conducive to efficient (online) terminology teaching and learning at translation and interpreting studies, all with the final goal of preparing students to function efficiently in the future professional context. In order to analyse success of the implementation of the project, the author conducted a learner-centred questionnaire survey.

3.1. Project overview

The national research project “Modernisation of Terminology Teaching Methods at Interdisciplinary Translation and Interpreting Studies” was implemented at the author's department in January 2020–September 2021,

with one full professor, two associate professors, and one senior lecturer as project members. The aim of the project was to improve all elements of the terminology courses design and to examine students' opinion on the effectiveness of the applied approach in terminology learning through a questionnaire.

The first project component involved re-evaluation of the four key elements of the terminology courses design. By integrating a learner-centred approach in all key elements, an environment promoting learner autonomy is created, which is shown to have a positive effect on student motivation (Horváth 2007: 113; Huszárné Prikler 2020: 104). The second component of the project involved enhanced use of technology with software tools and applications for terminology management, which proved particularly necessary during online education due to the Covid-19 pandemic: students could not physically attend the digital lab and had to rely on technology in order to work on collaborative terminology projects from their homes. Technology enabled the department's computer lab to become a digital lab where students also developed a technological competence and which was the basis for creating a technically equipped distance learning centre.

3.2. Project outcomes

3.2.1. Revised programmes and objectives of terminology courses

In retrospect of the beginnings of the terminology courses at the author's department, the teaching methods did not always contribute to developing a terminological competence but merely to developing terminological glossaries. A terminological sub-competence does not refer to the acquisition of lists of terms but to the ability of the translator to acquire the knowledge represented by those terms (Montero Martínez, Faber 2009: 92). A key task of translation- and interpreting-oriented terminology teaching should be to engage students in problem-based learning through problem-solving activities where students resolve existing real-life terminological problems, thus acquiring skills necessary for a future profession in translation and interpreting. As Johnson and Johnson (2018: 1) explain, the role of instructors is evolving from presenter of information to the designer of active learning environments and experiences that maximise student engagement.

Table 1. Comparison of objectives at teacher-centred and learner-centred terminology courses
(Source: Sazdovska Pigulovska, Popovska 2021: 15)

DEVELOPING TERMINOLOGICAL GLOSSARIES	DEVELOPING TERMINOLOGICAL COMPETENCE FOR STUDENTS OF TRANSLATION AND INTERPRETING
Different approaches to terminology teaching and terminology work	Coordinated approaches to terminology teaching and terminology work
Strong reliance on terminology practice	Balance between theory and practice of terminology
Lecture	Collaborative activity
Individual terminological research	Problem-based learning and project-based learning
Optional use of technology	Enhanced use of technology

Table 1 presents different aspects of the terminology teaching process that were improved. The previously non-systematic teaching approaches resulted in improvisation with teaching techniques, huge gaps among the curricula of terminological courses, such as omission of key skills like terminology mining or digital skills, etc. Cooperative learning at the terminology courses increased students' responsibility for their own learning, self-management, self-organisation, self-confidence, and motivation. Cooperative learning includes active learning procedures, such as problem-based learning, team learning, collaborative learning, peer-assisted learning, etc. (Johnson, Johnson 2018: 1).

3.2.2. *Revised teaching-learning methodology*

Activities on the first component of the project continued with revising the teaching-learning methodology. Montero Martínez and Faber (2009: 8) suggest a terminology teaching model that promotes learner autonomy: namely, success in the terminology teaching-learning process is possible when the student is not only a passive receptor of the knowledge taught by the lecturer but becomes an active learner who looks for information and engages in active assimilation of information, which contributes to significant learning (Alcina 2011: 3).

Table 2. Comparison of teaching-learning methodology before and after the project

(Source: Sazdovska Pigulovska, Popovska 2021: 16)

TEACHER-CENTERED: TEACHER IS THE MAIN SOURCE OF INFORMATION	LEARNER-CENTERED: ACTIVE ASSIMILATION OF INFORMATION
Learning through transmission	Learning through discovery and self-guided exploration
Short-term knowledge of terminology	Re-applied knowledge to new situations in the future
Tasks and activities that promote memorizing	Tasks and activities that promote learner autonomy
Personal teacher experience	Sharing experience on best practices through online workshop on terminology teaching techniques for T&I studies

A learner-oriented approach needs to be holistically applied, which means in all key aspects: from course programme and objectives to methodology and learner assessment. Traditional terminology teaching exercises result in students passively receiving knowledge transferred by the lecturer and in mechanical and repetitive learning of terminology, thus acquiring short-term terminology knowledge that cannot be reused in new tasks or situations in the future and which does not prepare students to deal with terminological problems in an autonomous manner.

3.2.3. *Learner autonomy in terminology courses*

The concept of learner autonomy is key for translation and interpreting education (Fang, Morris 2021; Bolaños-Medina, Núñez 2022). Learner autonomy implies the ability to take charge of one's own learning and to take responsibility for all aspects of this learning (Holec 1981: 3). A key task of terminology teachers should be to encourage students to take an active part in learning through a variety of techniques as knowledge acquired in such a manner is not readily forgotten once the terminology course is over but can be reused in other tasks or courses, thus constructing retention of long-term knowledge. Hence, one project goal was to motivate students to actively participate in the terminology learning process thus avoid learning terminology repetitively.

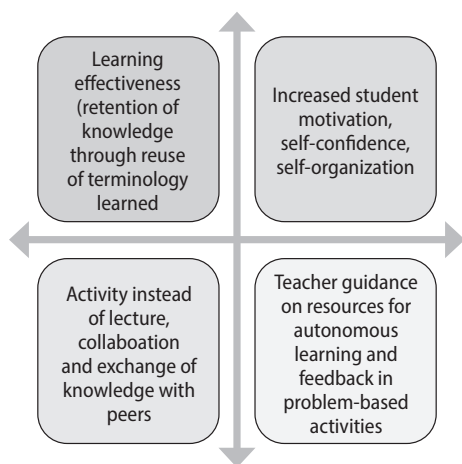


Figure 1. Perceived benefits of learner autonomy in terminology courses

(Source: Sazdovska Pigulovska, Popovska 2021: 91)

Figure 1 shows that learner autonomy improves terminology learning efficiency, student motivation, self-organisation, self-confidence, interaction and exchange of knowledge, and use of resources for autonomous terminological research and learning.

3.2.4. Innovated methods of terminology learning for translation and interpreting students

In order to come up with more innovative activities that promote learner autonomy, the members of the project team organised the online workshop “Terminology teaching methods for translation and/or interpreting education” held in June 2021 and attended by fifteen professors and lecturers from the author’s department, other Faculty departments, other faculties from both state and private universities, and from the Macedonian lexicographic centre. The purpose of the workshop was to jointly reflect on the most efficient terminology teaching practices and classroom or online activities that from their experience increase both learner autonomy and motivation. The participants shared the most effective terminology learning methods from their practice: problem-based learning, collaborative projects, simulated project-based learning, internship (institutional practice), class discussion of reading materials, etc., which prepared students to autonomously solve terminological issues and to reuse that knowledge in other tasks and courses. Also, all workshop participants expressed

readiness to include learning terminology through institutional practice in their curricula as a highly effective, but under-utilised method enabling (re)use of knowledge in practice.

The workshop resulted in publication of “Priracnik so nastavni aktivnosti po terminoloski predmeti vo nastava po preveduvanje i tolkuvanje” (Guidelines on terminology teaching activities for translation and interpreting studies) where all participants presented key elements of their terminology teaching design (Sazdovska Pigulovska, Popovska 2021: 13–15), which included the following: (1) title of terminology course and department, (2) methodology: approach or method of work, (3) course objectives: expected learning outcomes and skills acquisition, (4) contents: description of a terminology teaching activity that promotes learner autonomy, motivation or interaction, (5) use of technology and terminological resources, (6) applied assessment model, (7) future areas that need improvement. The purpose of the guidelines is to provide recommendations on how to improve current terminology teaching in translation and interpreting studies across faculties in North Macedonia and to provide much needed nation-wide recommendations to new and less experienced teachers.

3.2.5. *Revised assessment method*

A significant project outcome was the shift from summative to formative assessment, the main elements of which are outlined in Table 3.

Table 3. Comparison of summative and formative assessment in terminology courses
(Source: Sazdovska Pigulovska, Popovska 2021: 62)

SUMMATIVE ASSESSMENT	FORMATIVE ASSESSMENT
Final exam at the end of the semester	Introducing regular tests, quizzes, self-assessment, peer-assessment, checklists, etc. via e-learning platforms
Ineffective “campaign learning” before exam	Gradual effective learning throughout the course
No teacher insight into effectiveness of terminology teaching methods	Teacher insight into effectiveness of terminology teaching methods

Before the project, most terminology teachers applied summative assessment with a final exam at the end of the semester, which focused on grading instead of progress tracking in terminology learning and often

resulted in ineffective campaign learning before the exam. Formative assessment includes any marking, correcting, or commenting, which gives students frequent feedback on their learning in order to help them learn more or better (Kelly 2005: 145) and offers qualitative information on teaching efficiency (Nikolaeva, Korol 2021: 739). It enables continuous and systematic evaluation of student progress via regular tests, quizzes, self-assessment, peer-assessment, checklists, etc. and demonstrates whether students achieve actual progress in a specific terminology activity and provide teacher insight in the effectiveness of their teaching methods.

3.2.6. Enhanced use of technology

Analysis of the current situation showed a big discrepancy between technology use among different terminology courses at the author’s department. One of the project goals was to enhance use of technology in all terminology courses and contribute to their continuous use throughout the studies and after graduation.

Table 4. Benefits of enhanced use of technology in terminology courses

(Source: Sazdovska Pigulovska, Popovska 2021: 60)

INDIVIDUAL TERMINOLOGY WORK	COLLABORATIVE TERMINOLOGY WORK VIA SDL MULTITERM SERVER, MULTITERM EXTRACT, MULTITERM ONLINE, SDL LANGUAGE CLOUD TERMINOLOGY, ETC.
Personal experience	Exchange of experience and knowledge
Limited motivation	Increased motivation for database creation and management
Traditional glossaries are easily lost or deleted and rarely shared with the rest of the group	Focus on digital termbases creation and management, which are reused in the future and shared/merged with the rest of the group
Use of reliable terminological resources	Use of online and own resources for terminological research, information mining, and focus on information technologies, etc.

Enhanced use of technology for terminology management motivated students to engage in collaborative terminology work through exchange of knowledge with peers without being physically present at the same

location. By integrating desktop and cloud-based software, students created, managed, and shared term bases via desktop or cloud. Experience acquired in this way is not only convenient during online education, but also simulates a professional situation. Information management skills are applied to solve translation problems when students encounter lack of reliable terminological resources (Faber, León Araúz 2021: 590).

4. RESEARCH QUESTIONS AND METHODOLOGY

The effectiveness of the applied approach for terminology teaching had to be evaluated from a student perspective as well, especially in an empirically-based manner. The initial assumption was that the terminology teaching approach was learner-centred only if it was holistically applied, in all key aspects from the course programme to learner assessment. Hence, on the basis of the initial findings and assumptions, the following research questions are discussed in this paper:

1. Are the applied terminology teaching techniques at the author's department effective for learning terminology?
2. Do terminology students prefer learner autonomy or teacher reliance?
3. Are students satisfied with their personal progress in learning terminology?
4. Did students improve their technological competence?
5. Do students prefer formative or summative assessment at terminology courses?

For the purpose of providing answers to these questions, the author designed a learner-focused questionnaire, the aim of which was to gather students' opinions on the effectiveness of the overall terminology teaching approach. The semi-structured learner-focused questionnaire consisted of ten multiple choice questions with open-ended components and two open-ended questions (see Annex I). The results point out conclusions for reinforcing a learner-centred approach in terminology courses.

5. RESULTS

The online learner-focused questionnaire was answered by 42 undergraduate students in the third and the fourth academic year, who had completed at least two different one-semester terminology courses during the

implementation of the project, with 83% of surveyed students indicating that they had attended classes regularly.

One half of the surveyed students personally considered the teaching activities applied in the terminology courses they attended to be effective for learning terminology as the activities enabled them to become actively involved in practical terminological research and information mining, thus helping them “better memorise the terminology covered”. On the other hand, some students explained that they learned an abundance of terminology, but it was easily forgotten as it was not reused. These results led to the conclusion that an effective method of learning terminology was to reusing it in other tasks on the same and other courses enabling context-specific use.

Three questions focused on the methodological approach applied. More than one half of surveyed students replied that they preferred learner autonomy for learning terminology and elaborated that “it is important to take responsibility for one’s own learning by seeking resources and strategies for translations” and that when students assumed an active role “learning becomes more thorough and effective”. The results show that the programme needs to be reinforced with more activities promoting learner autonomy in terminology learning.

These answers are closely related to the next question, which revealed that only one-third of the respondents felt confident in their ability to independently solve terminological issues, with two-thirds feeling confident only sometimes depending on “how familiar a student is with the domain”, because “students are not experts” and “still need teacher help on neologisms and when faced with a lack of terminological resources”. This explains why many students still prefer teacher reliance. On the basis of these results, it can be concluded that the lack of terminological resources in many domains is the reason for reinforcing problem-based learning in terminology courses to prepare students to autonomously solve terminological issues. Also, all surveyed students were certain that teachers needed to consult them on the effectiveness of terminology teaching activities.

More than two-thirds of the respondents said they were satisfied with the personal progress they had achieved in learning terminology. Students were previously warned about the misconception that they could become experts in a certain domain after only one semester as terminology learning was a continuous and long-term process. Almost one-third

replied that they were not satisfied with their personal progress in learning terminology because they “studied many terms by heart and soon forgot them” as they did not properly understand the concepts. This is another argument why teaching activities must enable active student involvement in learning for it to become an effective process.

Although more than two-thirds of the respondents said they improved their technological competence at the terminology courses, many replied that they “still do not feel very confident about the use of technology for terminology management and collaboration”, which is why the programme needs to reinforce the use of technology as an area where students need continuous improvement, especially due to the rise of new technologies and the need to keep up with the professional requirements of the industry.

The results from the next question show that the most effective activity that surveyed students are willing to take part in is internship or professional practice followed by translation workshop with students, teachers, and professionals as well as by problem-based learning. It appears that students recognised the need to connect with the industry and were willing to engage in experiential learning as they were fourth year students. However, it appeared that these preferred activities were the least applied by terminology teachers, which shows that terminology courses must reinforce practice-based or profession-based learning. The least preferred activity was simulated project-based learning. These results show that there is no single solution to learning terminology, but a variety of techniques focusing on different aspects are needed, particularly activities that help students assume an active role through practice-based learning. More than two-thirds of surveyed students preferred formative assessment in terminology courses, which contributed to “more effective learning of terminology because it is performed on a regular basis” and enables “progress tracking of what is learned”.

To conclude, the overall results obtained via the learner-focused questionnaire show that students need to increase their self-confidence when it comes to mastering terminology in specialised domains and use of technology as these are continuous and long-term processes requiring experience. If this is achieved, terminology learners will possess greater readiness and open-mindedness to learn complex terminology in completely new domains, which can be reused in their profession.

6. CONCLUSIONS

Similarly to Li (2023: 763), Austerermüehl (2012: 3) and Alcina (2011: 1), this study shows that the effectiveness of terminology teaching and learning is closely related to adopting a holistic approach in key educational elements – from teaching methodology and objectives to assessment of students, i.e., that the acquisition of a translation- and interpreting-oriented terminological competence is closely associated with adopting a full learner-centred approach in terminology courses. Furthermore, one of the main perceived conclusions is that there is a direct link between learner autonomy and student motivation, although additional empirical evidence-based studies are needed to support this thesis in terminology learning specifically.

The study presented in this paper also shows that creating an environment which stimulates students to take responsibility for how they construct terminology knowledge by becoming actively involved in the learning process through various problem-based and collaborative activities should be the key issue for every terminology teacher. Moreover, students are motivated to work collaboratively in teams, because it enables exchange of knowledge with peers and active research instead of repetitive learning. This study proves that one of the most important teaching techniques should be working on problem-solving techniques, which enable students to solve terminological issues independently, thus better preparing them for the future profession in translation and interpreting.

Furthermore, this study found that the use of terminology management technology for collaborative purposes can positively affect student motivation and sheds light on the fact that more digital labs are needed to create a collaborative terminology teaching environment. The results of the learner-centred questionnaire show that students are aware of the importance of technology for their future profession and that they must keep up with emerging technologies and skills required by the industry. Nevertheless, more work is needed on integrating technology in all terminology courses, i.e., collaborative project-based terminology learning and practice-based or profession-based learning, and on implementing terminology learning techniques that help students assume an active role through practice-based or profession-based learning, whether it is through internship, workshop, or problem-solving.

One of the main outcomes of the project is publication of “Guidelines on Terminology Teaching Activities for Translation and Interpreting

Studies”, which provide the following key recommendations on how to improve current terminology teaching in translation and interpreting studies across faculties in North Macedonia (Sazdovska Pigulovska, Popovska 2021: 91–93):

- to ensure a sufficient number of semester hours for all terminology courses;
- methodology wise, to apply the learning through discovery model, the communicative approach through active research and activities that promote learner autonomy and increase motivation;
- to prepare students to independently solve terminological issues;
- to apply contemporary online terminological resources, terminology software tools, and collaborative technology;
- to apply formative assessment in all terminology courses.

Finally, it can be concluded that the main goal of translation- and interpreting-oriented terminology courses is to train and prepare students to function efficiently in a professional context and to reuse acquired terminology knowledge and learned practices, whether theoretical or practical, in other tasks and courses and in their future profession as well. This can be affectively achieved by applying a profession-based learner-centred approach (Nord 1991), which should become an integral part of learner-centred translation and interpreting pedagogy. Lastly, the end goal is to encourage students to continue using acquired terminology-related practices and software, i.e., the tools throughout their studies and professional careers, only improving them with future work. Translation- and interpreting-oriented terminology teaching requires more attention and empirical studies where the initial findings of studies like this one can be further and more thoroughly tested and elaborated. The findings presented in this paper offer guidance for other educators and trainers encountering similar terminology teaching dilemmas.

ANNEX 1

Learner-focused Questionnaire

1. Which terminology courses have you attended so far? (Law, Politics, Economics, Medicine, ICT or Diplomatic communication)?
2. Did you regularly attend those classes?
 - a. Yes
 - b. No
 - c. Occasionally
3. Do you feel that the applied exercises and activities at the terminology courses you attended are effective for learning terminology?
 - a. Yes
 - a. No
 - c. Only sometimes

Explain why: _____

4. Do you prefer learner autonomy or teacher reliance when learning a new terminology? Should students assume an active role in learning terminology? (*You can't choose both as they are completely opposite by nature*)
 - a. I prefer learner autonomy
 - b. I prefer teacher reliance

Explain why: _____

5. Do you feel that you can independently solve terminological issues in different domains (*e.g. law, economics, medicine, IT, etc.*)?
 - a. Yes
 - b. No
 - c. Only sometimes

Explain why: _____

6. Are you satisfied with the personal progress you achieved in learning terminology at the terminology courses you attended? (*Keep in mind that you can't become an expert in a specific domain after only 10 classes*)

- a. Yes
- b. No

Explain why: _____

7. Did you improve your digital skills at any of the terminology courses you have attended so far?
 - a. Yes

- b. No
 - c. Digital skills are not important for terminology management
8. Do you think that you can learn terminology effectively when classes are conducted online?
- a. Yes
 - b. No
 - c. I am not sure
- Explain why: _____
9. Do you prefer summative assessment (final exam at the end of the terminology course) or formative assessment (weekly tests throughout the terminology course)?
- a. I prefer summative assessment
 - b. I prefer formative assessment
- Explain why: _____
10. Do you think that it is important for students to express opinion on the effectiveness of the terminology teaching exercises and activities applied by the teacher at different terminology courses?
- a. Yes
 - b. No
- Explain why: _____
11. While attending a terminology course, in which of these activities would you be willing to take part in order to more effectively learn terminology in a specific domain (*You can choose more than one answer here*):
- a. *internship* in an institution, organisation, company, etc.
 - b. *individual problem-solving* (student is given the assignment to individually provide an explanation or find a solution to a specific real-world terminological dilemma)
 - c. *out-of-class collaborative research* of terminology with fellow students
 - d. team work, e.g. *simulated project-based learning*
 - e. *conducting interviews/consultations* with experts (lawyer, banker, economist, doctor...)
 - f. *translation workshop* with students, teachers and professional translators
12. How can terminology courses be improved? What would you change so that terminology learning can become more effective for students?

REFERENCES

- Alcina Amparo (ed.) 2011: *Teaching and Learning Terminology: New Strategies and Methods*, ed. A. Alcina, Amsterdam/Philadelphia: John Benjamins Publishing Company, 1–35.
- Austermuehl Frank 2012: Using concept mapping and the web as corpus to develop terminological competence among translators and interpreters. – *Translation Spaces* 1, 54–80.
- Bolaños-Medina Alicia, Núñez Juan L. 2022: Autonomy support, critical thinking, and motivation as key predictors of translator trainees' strategic competence. – *Across Languages and Cultures* 23, 131–147.
- Bowker Lynne, Marshman Elizabeth 2012: Translation technologies as seen through the eyes of educators and students: harmonizing views with the help of a centralized teaching and learning resource. – *Global Trends in Translator and Interpreter Training: Mediation and Culture*, eds. S. Hubscher-Davidson, M. Borodo, London/New York: Continuum International Publishing Group, 69–94.
- Cabré Maria Teresa 1999: *Terminology. Theory, Methods and Applications*, Amsterdam/Philadelphia: John Benjamins.
- Cabré Maria Teresa 2010: Terminology and translation. – *Handbook of Translation Studies*, eds. Y. Gambier, L. van Doorslaer, Amsterdam/Philadelphia: John Benjamins, 356–365.
- Colina Sonia 2003: *Translation Teaching from Research to the Classroom: A Handbook for Teachers*, USA: McGraw-Hill.
- Ding Yan 2013: Effects of domain knowledge on consecutive interpreting performance. – *19th International Congress of Linguistics*, ed. Département de Linguistique de l'Université de Genève, Switzerland, Geneva, 1–20.
- Faber Pamela 2004: Terminological competence and enhanced knowledge acquisition. – *Translationskompetenz*, eds. P. A. Fleischmann, J. Schmitt, G. Wotjak, Tübingen: Stauffenburg, 479–499.
- Faber Pamela, León Araúz Pilar 2021: Designing terminology resources for environmental translation. – *The Oxford Handbook of Translation and Social Practices*, eds. J. Meng, S. Laviosa, online edn, Oxford Academic, 587–615. DOI: 10.1093/oxfordhb/9780190067205.013.7.
- Faber Pamela, León Araúz Pilar, Prieto Velasco Juan Antonio 2009: Semantic relations, dynamicity, and terminological knowledge bases. – *Current Issues in Language Studies* 1, 1–23.
- Faber Pamela, Montero Martínez Silvia 2019: Terminology. – *The Routledge Handbook of Spanish Translation Studies*, eds. R. Valdeón, Á. Vidal, New York: Routledge, 247–266.
- Fang Xiaoqing, Morris Philip (eds.) 2021: Cultivation of student translator autonomy in UK higher education. – *English Language Teaching* 14, Canadian Center of Science and Education, 41–57. DOI: 10.5539/elt.v14n5p41.
- Fischer Márta 2020: Developing terminology competence, with special focus on recognising terms. – *Fit-for-Market Translator and Interpreter Training in the Digital Age*, eds. R. Besznák, M. Fischer, Cs. Szabó, United States/Spain: Vernon Art and Science Incorporated, 65–78.
- Fischer Márta 2022: Horizontal and vertical terminology work in the context of EU translations. – *Porta Lingua* 1, 7–15. DOI: <https://doi.org/10.48040/PL.2022.1.1>.
- Fóris Ágota 2022: *Translation and Terminology. Theory and Practice in Hungary*, Budapest/Paris: KRE – L'Harmattan.
- Hadley James Luke, Taivalkoski-Shilov Kristiina, Teixeira Carlos S. C., Toral Antonio (eds.) 2022: *Using Technologies for Creative-Text Translation*, Routledge Advances in Translation and Interpreting Studies, New York: Routledge.
- Hebenstreit Gernot, Soukup-Unterweger Irmgard 2011: Terminologiemangement als Wissensmodellierung für das Community Interpreting. – *Modelling the Field of Community Interpreting. Questions of Methodology in Research and Training*, eds. C. Kainz, E. Prunč, R. Schögler, Wien/Berlin: LIT Verlag, 298–325.
- Holec Henri 1981: *Autonomy and foreign language learning*, Oxford: Pergamon.
- Horváth Ildikó 2007: Autonomous learning: what makes it work in postgraduate interpreter training. – *Across Languages and Cultures* 8(1), 103–123. DOI: 10.1556/Acr.87.2007.1.6.
- Huszárné Prikler Mária Renáta 2020: *Motivation, Autonomy and Assessment in Translation Studies BA Classes*. Doctoral Dissertation, Pécs: University of Pécs.
- Ji Meng, Oakes Michael (eds.) 2019: *Advances in Empirical Translation Studies*, Developing Translation Resources and Technologies, Cambridge/New York: Cambridge University Press.
- Johnson David W., Johnson Roger T. 2018: Cooperative learning: the foundation for active learning. – *Active Learning – Beyond the Future*, 59–70. DOI: 10.5772/intechopen.81086.

- Kalay Dilşah, Fedorenko Svitlana, Guryeyeva Liudmyla, Kolomiets Svitlana 2020: Forming students' terminological competence in the moodle-based e-learning course. – *Advanced Education* 16, 104–111. DOI: 10.20535/2410-8286.216980.
- Kalina Sylvia 2002: Quality in interpreting and its prerequisites a framework for a comprehensive view. – *Interpreting in the 21 Century*, eds. G. Garzone, M. Viezzi, Amsterdam/Philadelphia: John Benjamins, 122–130.
- Kaltenböck Gunther, Mehlmauer-Larcher Barbara 2005: Computer corpora and the language classroom: on the potential and limitations of computer corpora in language teaching. – *ReCALL* 17(1), 65–84. DOI: 10.1017/S0958344005000613.
- Kautz Ulrich 2000: *Handbuch Didaktik des Übersetzens und Dolmetschens*, München: Iudicum, Goethe-Institut.
- Kelly Dorothy 2005: *A Handbook for Translator Trainers: A Guide to Reflective Practice Translation*, Manchester/Northampton: St. Jerome.
- Li Zhiping 2023: Cultivation of translation-oriented terminological competence in the era of artificial intelligence. – *Proceedings of the 2022 2nd International Conference on Modern Educational Technology and Social Sciences (ICMETSS 2022)*, 760–767.
- Montero Martínez Silvia, Faber Benítez Pamela 2009: Terminological competence in translation. – *Terminology* 15(1), 88–104. DOI: 10.1075/term.15.1.05mon.
- Nikolaeva Sofiya, Korol Tatiana 2021: Formative assessment in the translation classroom: closing a feedback loop. – *International Journal of Evaluation and Research in Education* 10(2), 738–746. DOI: 10.11591/ijere.v10i2.21274.
- Nord Christiane 1991: *Text Analysis in Translation*, Amsterdam: Rodopi.
- Pöllabauer Sonja 2017: Issues of terminology in public service interpreting. From affordability through psychotherapy to waiting lists. – *Non-professional interpreting and translation, State of the art and future of an emerging field of research*, eds. R. Antonini, L. Cirillo, L. Rossato, I. Torresi, John Benjamins Publishing Company, 131–155.
- Rothwell Andrew, Moorkens Joss, Fernández-Parra María, Drugan Joanna, Austermuehl Frank (eds.) 2023: *Translation Tools and Technologies*, London/New York: Routledge.
- Sazdovska Pigulovska Milena 2021: Integrating experiential learning in the virtual translation classroom. – *Proceedings of the 20th ITRI International Conference on The Roles and Identities of Interpreters and Translators in an Ever-Changing World*, North Korea: Seoul, 43–53.
- Sazdovska Pigulovska Milena, Popovska Solzica (eds.) 2021: *Priracnik so nastavni aktivnosti po terminoloski predmeti vo nastava po preveduvanje i tolkuvanje*, Skopje: Filoloski fakultet “Blaze Koneski”.
- Schäffner Christina 2005: Preparing students of translation for the real world: Needs, methods, constraints. – *On the Relationships between Translation Theory and Translation Practice*, ed. J. Peeters, Frankfurt: Peter Lang, 237–248.
- Sikora Iwona 2014: Contemporary approach to terminological competence, management and terminology teaching on the basis of courses for translators offered by Polish higher education institutions. – *Languages for Special Purposes in a Multilingual, Transcultural World, Proceedings of the 19th European Symposium on Languages for Special Purposes*, eds. G. Budin, V. Lušicky, Vienna: University of Vienna, 500–508.
- Stoll Christoph 2009: *Jenseits simultanfähiger Terminologiesysteme. Methoden der Vorverlagerung und Fixierung von Kognition im Arbeitsablauf professioneller Konferenzdolmetscher*, Trier: WVT Wissenschaftlicher Verlag Trier.
- Thelen Marcel 2015: The Interaction between Terminology and Translation or Where Terminology and Translation Meet. – *Trans-kom* 8(2), 347–381.
- Wright Sue Ellen, Wright Leland D. (eds.) 1993: *Scientific and Technical Translation*, Amsterdam/Philadelphia: John Benjamins Pub. Co.

Santrauka

Straipsnyje nagrinėjamas tiriamasis klausimas, ar, studentų nuomone, terminologijos mokymo metodas, taikomas Skopjės šventųjų Kirilo ir Metodijaus universiteto Vertimo raštu ir žodžiu katedroje, yra veiksmingas mokantis terminologijos dalyko ir ugdant įgūdžius, įgyvendinus nacionalinį mokslinių tyrimų projektą „Terminologijos mokymo metodų modernizavimas tarpdalykinėse vertimo raštu ir žodžiu studijose“. Projekto tikslas – skirti daugiau dėmesio į besimokantįjį orientuotam požiūriui pagrindiniuose terminologijos kursų kūrimo elementuose.

Šiame straipsnyje apžvelgiama projekto veikla ir rezultatai, svarbūs į vertimą raštu ir žodžiu orientuotam terminologijos mokymui ir mokymuisi. Tikslas – pristatyti Skopjės šventųjų Kirilo ir Metodijaus universiteto Vertimo raštu ir žodžiu katedroje taikomo terminologijos mokymo metodo veiksmingumo tyrimo rezultatus, taip prisidedant prie vertimo raštu ir žodžiu mokymo tobulinimo.

Šis tyrimas rodo, kad terminologijos mokymo ir mokymosi veiksmingumas yra glaudžiai susijęs su holistiniu požiūriu į pagrindinius mokymo elementus, pradedant mokymo metodika ir tikslais bei baigiant studentų vertinimu, t. y. į vertimą raštu ir žodžiu orientuotos terminologijos kompetencijos įgijimas yra glaudžiai susijęs su visapusišku į besimokantįjį orientuotu požiūriu terminologijos kursuose.

Galima daryti išvadą, kad terminologijos dėstytojai, aktyviai įtraukdami studentus į mokymosi procesą, turi kurti aplinką, skatinančią besimokančiųjų savarankiškumą.

Vienas iš svarbiausių mokymo metodų turėtų būti problemų sprendimo būdai, padedantys savarankiškai spręsti terminologinius klausimus ir taip parengti studentus vertėjo raštu ir žodžiu profesijai. Į besimokantįjį orientuoto klausimyno rezultatai rodo, kad reikia daugiau dirbti integruojant technologijas terminologijos kursuose, t. y. bendradarbiavimu grįstą projektinį terminologijos mokymąsi ir praktika arba profesija grindžiamą mokymąsi, kurie turėtų tapti į besimokantįjį orientuotos vertimo raštu ir žodžiu pedagogikos dalimi.

Pagrindinis vertimo raštu ir žodžiu terminologijos kursų tikslas – išmokyti ir paruošti studentus veiksmingai funkcionuoti profesinėje veikloje, pakartotinai taikyti įgytas terminologijos žinias ir įgytą praktiką kitose užduotyse ir kursuose bei būsimoje profesinėje veikloje, taip pat skatinti studentus toliau taikyti su terminologija susijusią įgytą praktiką ir IT programines priemones studijose ir profesinėje karjeroje.

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Milena Sazdovska Pigulovska
Ss. Cyril and Methodious University
“Blaze Koneski” Faculty of Philology
Blvd. Goce Delcev 9A
1000 Skopje, North Macedonia
E-mail milena.sazdovska@flf.ukim.edu.mk