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FOREIGN LANGUAGE PROFICIENCY ASSESSMENT OF MASTER'S DEGREE STUDENTS AT TECHNICAL UNIVERSITIES

Olga V. Toporkova (a), Elena V. Novozhenina (b), Tamara I. Tchechet (c), Natalia I. Kokhtashvili (d)*
*Corresponding author

(a) Foreign Language Department, Volgograd State Technical University, Lenin Avenue 28, Volgograd, Russia, toporkova.vstu@gmail.com
(b) Foreign Language Department, Volgograd State Technical University, Lenin Avenue 28, Volgograd, Russia, elena.nvzh@mail.ru
(c) Foreign Language Department, Volgograd State Technical University, Lenin Avenue 28, Volgograd, Russia, titsch1@yandex.ru
(d) Foreign Language Department, Volgograd State Technical University, Lenin Avenue 28, Volgograd, Russia, nat.koxta@yandex.ru

Abstract

The purpose of the study is to investigate the monitoring and assessment system of foreign language proficiency at Master's degree level. Modern learning environment focuses on competence-based approach to training a professional. It leads to revising and modernizing the established monitoring and evaluation components of assessment system. The article deals with assessment tools of the level of foreign language proficiency resulted from the aims of teaching Master's degree students at a technical university. The aim of the study is to analyze and select the assessment tools, to work out criteria for assessing the development of general professional competence of Master's students by means of "Foreign Language" Course. The paper summarizes the authors' experience in the development of the specified competence and presents traditional tools of assessment with novelty elements. Some examples of their indicators and assessment criteria based on the competence approach are described. According to the results, valid and effective criteria developed by the authors contribute to a higher level of general professional competence of Master's degree students.

1. Introduction

At the present stage of development of higher engineering education, the system of foreign language teaching is based on the competence-oriented model of training a professional, with intercultural professional communication competence being an important component. New goals and objectives of teaching foreign languages necessitate the creation of a new monitoring and assessment system that will ensure quality changes in education. Monitoring and continuous assessment allow verifying the development of competencies and personal qualities necessary for further professional activity. In this regard, researchers in education have paid great attention to the problem of developing control and evaluation components. Many methodologists discuss and criticize conventional forms, means and tools of assessing the level of knowledge (Brindley, 1998; Williams, 2013; Toporkova, Novozhenina, & Chechet, 2016; Dubinina & Kamenskaya, 2018), emphasizing the need to develop and effectively apply new approaches to the system of assessing foreign language proficiency (Shemanaeva, 2018; Gamage, Ayres, Behrend, & Smith, 2019).

In accordance with the Federal State Educational Standard of Higher Education in the Russian Federation, "Business Foreign Language" is mandatory in professional training of Master's degree students at any non-linguistic university; the course implies the study of a foreign language in order to use it in a professional field. The implementation of Master's degree level in Russian higher education system began in 2003 when Russia joined the Bologna process. There have been some evident changes and achievements in teaching foreign languages. Innovative methods and technologies are being applied. However, effective educational practices are to be supported by the carefully elaborated assessment system. It is primarily the most relevant for non-linguistic universities, where the "Business Foreign language" course, due to its specific nature of a humanitarian subject, is considered to be difficult for mastering the language for specific professional purposes. Consequently, it is necessary to develop the assessment tools and criteria taking into account the competence-based approach which will most accurately assess the level of the required competence (Johnson, 2017; Kuznetsov & Shchaveleva, 2017; Bernavskaya, Ivanova, & Mikhailova, 2018; Tăușan, 2018; Arce-Lopera & Perea, 2020).

2. Problem Statement

Research on monitoring and assessment system is quite limited and insufficient for meeting the needs and demands of higher education these days. Virtually, it is rather difficult to assess the development of foreign language skills and abilities of Master's degree students necessary for their job-related professional purposes. The problem of developing the most effective assessment tools and their criteria is still a challenge today and needs considering from the point of monitoring the level of general professional competence.

3. Research Questions

The research aims to clarify the following questions:

▪ What assessment tools should be introduced to assess the level of proficiency for general professional competence?

▪ What assessment criteria should be developed to evaluate the level of proficiency for general professional competence? What parameters should the criteria satisfy?

▪ What conventional monitoring and control forms are considered to be the most efficient? What elements of monitoring and assessment system can be applied as best practices?

4. Purpose of the Study

The following research tasks have been set to solve the research problem of the study:

1) to identify the goals and objectives of the formation of intercultural communicative professionally oriented competence among Master's degree students; 2) to define the basic content of "Business Foreign Language" course in order to form the above competence; 3) to develop a Fund of assessment tools taking into account traditional and new assessment tools and evaluation criteria for each assessment tool.

5. Research Methods

This article discusses control and evaluation components exemplified by the assessment tools and criteria for assessing the level of general professional competence while learning a foreign language by Master's degree students whose major is 22.04.01 "Material Science and Materials technologies", at Volgograd State Technical University (VSTU). The University has been training Master's degree students for more than 20 years. VSTU offers about 40 study programmes at Master's degree level, which are aimed at deeper development of theory and practice in the chosen profile, at training specialists capable of solving complex problems in a professional field, as well as analytical, consulting and research activities. Foreign language training for Master's degree students is carried out by the course commonly called "Business foreign language"/Language for Specific Purposes, on the basis of the course programme developed in accordance with the FSES HE.

The factors mentioned above justify the choice of the following research methods: pedagogical forecasting, pedagogical design and comparative analysis. Furthermore, the study is based on the fundamental principles of student-centered, systematic and competence-based approaches to education.

6. Findings

6.1. Objectives for developing general professional competence

When organizing the educational process, monitoring and evaluating the learning outcomes we proceed from the assumption that the goal of teaching a foreign language at Master's level is to form intercultural, professionally oriented communication competence necessary for highly-qualified professional activities in various fields of foreign business partnership, production and research activities. Achieving this goal is possible in case the educational process highlights specific objectives, namely: 1) to provide understanding of official business and scientific communication styles and their specific features; 2) to master grammar skills and abilities that ensure communication without distorting the meaning in the written and oral communication of business and professional nature; 3) to master the

skills of dialogue and monologue speech using the most common lexical and grammatical structures and the rules of speech etiquette in the situations of both formal and informal professional communication; 4) to develop reading and translation skills for understanding scientific texts on general engineering and specific professional fields; 5) to master the skills of writing annotations, abstracts, theses, business correspondence, etc. (Vovsi-Till'e, 2018).

Each of these tasks involves the development of a specific subcompetence. Linguistic, sociocultural and linguocultural subcompetences, as well as social, strategic, discursive and compensatory ones are distinguished as mandatory. In classroom context, they act as independent specific objectives which can be achieved by doing specially designed tasks and exercises.

Master's course provides a higher degree of specialization compared to Bachelor's degree course due to its strong professional vector (Oproiu & Ianoş, 2018; Shiryaeva, 2013) and a higher level of competence. When learning a foreign language, the knowledge of professional thesaurus is of primary importance for graduate students. It is in the Master's degree programme that the scientific context of education manifests itself, which is essential for further education at Postgraduate level. Therefore, one of the main tasks of teaching a foreign language at Master's level is to develop a set of well-arranged tasks and interrelated activities, with gradually increasing level of difficulty and complexity, aimed at mastering scientific and technical terms. This may be acknowledged and results in developing new learning and teaching support materials to improve academic process in designing educational and methodological complex or teaching-aid package. The teaching-aid package should provide students' individual work, both classroom and extracurricular, firstly carried out under the guidance of a teacher, and then independently. The priority in the teaching-aid package is given to a textbook or a study guide which is often developed by the teaching staff of the department. It is worth paying attention to the fact that all the requirements for a modern study guide are determined by the competence-based approach to teaching a foreign language (Kozlova, 2018).

Equally important is the thematic content of foreign language teaching, which at a non-linguistic university is very flexible (Gorodetskaya & Rogovaya, 2019). Our department has the experience of publishing several textbooks for master's degree students. One of them was recommended by the Educational Methodological Association for Education in the Field of Linguistics of the Ministry of Education and Science of the Russian Federation (Mitina, Bagmetova, Kohtashvili, Litvinova, & Prom, 2013). The developed study guide fully complies with the new standards and requirements in terms of learning objectives, selection of texts, tasks, exercises and activities offered to students. The distinguished feature of this textbook is the availability of professionally-orientated texts in the corresponding direction of the Master's training. The concept of professional orientation is supported by a set of various tasks and exercises composed with the regard to learner-centered and competence-based approaches and aimed at developing the required competence. In this respect, it can be concluded that in order to form general professional competence more effectively, it is necessary to compose textbooks containing professional vocabulary and the terminological thesaurus which is introduced, trained and developed in professionally oriented exercises.

6.2. A monitoring and evaluation component of establishing general professional competence

Systematic approach to foreign language training distinguishes the following interrelated components: the approach and principles of learning, goals, content, methods, techniques, teaching tools, as well as a monitoring and evaluation component. To assess the learning outcomes it is necessary to develop and structure assessment tools according to their competency basis, i.e. complying with the arrays of knowledge, skills, abilities and proficiency in a foreign language determined by the Federal Standards. According to the learning outcomes of the Master's programme in 22.04.01 "Material Science and Materials technologies", a Master's degree student should acquire a number of competences. Consider the development of their general professional competence (GPC) in a foreign language, designated in the programme as GPC-1: readiness for communication in oral and written forms in Russian and foreign languages to solve problems of professional activity. The definition of the competence states that teaching a foreign language at the Master's degree level at higher education institutions of non-linguistic profiles contributes to the humanization of education since it broadens the mind, raises the level of cultural awareness, communication, speech, thinking not only in a foreign language, but also in the native language.

Assessment tools developed by the authors of the article allow monitoring progression and level of this competence; they also contribute to mastering a foreign language for working in multinational teams, for developing interdisciplinary and innovative projects and creating business cooperation relationships in teams. Mastering this competence means acquiring the ability to solve professional problems using a foreign language in cross-cultural communication and multinational working environment.

The authors' prior conclusion, that "the most effective conventional assessment tools are an essay, an achievement test, a grammar test, examination, writing annotations to the text, an interview, a presentation" (Toporkova, Novozhenina, & Chechet, 2016, p. 244) allows examiners to apply some of these assessment tools while training master's degree students. However, traditional tools of assessment such as "Presentation", "Interview" and "Business Letter" are reconsidered in line with the competence approach, and are used in new forms of interaction and feedback. "Presentation" and "Interview" implies hybrid control paying attention to the verification of both monologue and dialogue skills. The traditional form of interaction "teacher-student" is replaced by the interaction "student-group", "student-student"; while checking the skills of one student or a pair you can involve other students into active participation.

6.3. Illustrative assessment tools

Consider the example of such an assessment tool as "Presentation" that may be used while discussing the topic "My speciality/major". This assessment tool allows the teacher to verify a Master's degree student's ability to talk about the professional area, to state the essence of their speciality in business communication with representatives of other cultures. Therefore, the maximum score of "5" will be assigned if a student demonstrates an adequate choice of vocabulary and grammar, good pronunciation, grammatical correctness (no more than 1-2 minor mistakes), full compliance with the content to the task, high fluency and expressiveness of speech, PowerPoint skills. A student should be able to answer all the questions, posed by both the students and the teacher. The answers and the questions should be appropriate, grammatically correct and relevant to sociolinguistic parameters of the

situation and related to the topic of the presentation. PowerPoint proficiency is verified by the ability to include pictures, legends, to combine two types of modes in PowerPoint – a graphical editor and a slideshow in order to enhance the graphical capabilities of a presentation. Lower scores, respectively, will indicate non-compliance with the evaluation criteria, mispronunciation, grammar mistakes, poor professional vocabulary, reduced speech rate, low fluency and non-compliance with the requirements to the content, size and visualization of a presentation.

"Interview", being an assessment tool, allows the teacher to identify the student's attainment level of grammatical and lexical aspects of the language typical for the situations of scientific and business communication, dialogical speech within the topics of business and professional communication, business ethics rules and conversational protocol. To get the maximum score, certain criteria must be satisfied. 'At the interview' a student demonstrates an adequate choice of vocabulary and grammar, good pronunciation, grammatical correctness (1-2 minor mistakes only), high fluency and expressiveness of speech. However, the criteria, such as full implementation of the communicative task, use of socio-cultural knowledge in accordance with the situation of communication, confident answers to questions, are considered to be much more important.

Since one of the primary goals of teaching foreign languages at Master's degree programme at a technical University is developing both speaking and writing skills in the field of professional, research and international activities, "Business letter (e-mail)" as an assessment tool is recognized as quite reasonable. The teacher gets the e-mail and evaluates the outcome according to the stated criteria. "Business letter (e-mail)" reveals the knowledge of business correspondence, verifies the skills and ability to maintain contacts by business letters, e-mail, memorandums, and the choice of the appropriate grammar and vocabulary typical for written business communication; it demonstrates the attainment of skills for writing business letters in professional communication. A Master's degree student gets the maximum score of "5" if he/she demonstrates complete implementation of communicative tasks, compliance with the size and layout requirements, clear structure and coherence of the text, the relevant word selection and sound knowledge of vocabulary and grammar in accordance with the genre of written assignments (no more than 1-2 minor mistakes). In addition, the letter must be free of spelling errors. Non-compliance with the evaluation criteria inevitably leads to a decrease in scores and attests that particular skill hasn't been developed (Toporkova, Novozhenina, Tchechet, & Likhacheva, 2014).

As it is evident from the foregoing assessment tools and criteria, the monitoring and assessment component assumes the manifestation of personal qualities of each student, giving their personal opinion, attitude not only to the situation, but also to the learning process in general, and to learning a foreign language in particular. In this case, the descriptive and specific feedback will be an effective addition to the assessment of students ' progression. Effective feedback is a reasonable, tactful and concise teacher's commentary, which combines encouragement with objective critical analysis, conveys the teacher's interest in the student's success, reports on the significance of the results achieved, compares past and present achievements. The purpose of this assessment is to focus on achieving success and develop individual's potential. Therefore, it is also required to "make these criteria valid and most transparent for the student" (Toporkova, Novozhenina, & Chechet, 2016, p. 244). The foregoing approach and forms of

the quality assessment of education create conditions to display personal qualities and individual characteristics, personal development and self-improvement.

7.   Conclusion

The analysis has revealed that to assess the level of proficiency in a foreign language, when teaching Master's degree students at a technical university, the assessment tools consistent with the competence approach should be developed. The success of the development of competences, established in the course programme in accordance with the requirements of the FSES HE, is integral to the goals, objectives and content of Master's degree course. To evaluate the level of proficiency for the general professional competence it is required to develop certain criteria which are valid and most transparent for every Master's degree student.

The established assessment criteria are the indicators for monitoring the level of general professional competence based on the competence approach. The described assessment tools and criteria do not fully cover the full range of the monitoring and evaluation component. However, the results of the study allow us to conclude that the proposed traditional assessment tools with elements of novelty and criteria for assessing the level of general professional competence of Master's degree students at a technical university contribute to a more effective development of this competence while learning a foreign language.

References

Arce-Lopera, C., & Perea, A. (2020). Logic evaluation through game-based assessment. Retrieved from www.scopus.com

Bernavskaya, M. V., Ivanova, V. A., & Mikhailova, O. Y. (2018). Formation of students' information and communication competence in foreign language training. *18th PCSF 2018Professional Culture of the Specialist of the Future. The European Proceedings of Social & Behavioural Sciences, LI,* 1494-1500. https://dx.doi.org/10.15405/epsbs.2018.12.02.159

Brindley, G. (1998). Outcomes-based assessment and reporting in language learning programmes, a review of the issues. *Language Testing, 15*(1)*,* 45-85.

Dubinina, G. A., & Kamenskaya, N. V. (2018). Poisk novyh form kontrolya i otsenki kachestva podgotovki po inostrannomu yazyku v neyazykovom vuze. [Looking for new forms of assessment in foreign language training at non-linguistics universities]. *Vestnik Moscovskogo gosudarstvennogo lingvisticheskogo universiteta*, *2*(796), 202-211[in Rus.]

Gamage, S. H. P. W., Ayres, J. R., Behrend, M. B., & Smith, E. J. (2019). Optimising Moodle quizzes for online assessments. *International Journal of STEM Education, 6*(1). https://doi.org/10.1186/s40594-019-0181-47

Gorodetskaya, E. Ya., & Rogovaya, N. A. (2019). K voprosu modernizacii soderzhaniya obucheniya inostrannomu yazyku v neyazykovom vuze. [On the problem of modernizing foreign languages teaching content in a higher technical school]. *Nauchnyj Al'manah*, *5-3*(55), 26-33 [in Rus.]

Johnson, J. (2017). Foreign language training in U.S. undergraduate IB programs: Are we providing students what they need to be successful? *Journal of Teaching in International Business*, *28*(1), 35-48. https://doi.org/10.1080/08975930.2017.1343703

Kozlova, N. G. (2018). Kompetentnostnyi podkhod v yazykovom obrazovanii: analiz traktovok klyuchevykh ponyatii [Competence-based approach in language education: analysis of the interpretations of key concepts]. *Pedagogicheskij Zhurnal, 8*(2A), 31-37 [in Rus.]

Kuznetsov, A. N., & Shchaveleva, E. N. (2017). Proektirovanie fondov otsenochnykh sredstv po distsipline "Inovstrannij yazyk": ot kontseptsii k vnedreniju [Development of assessment means

for foreign language training: from concept to implementation]. *Vestnik Moscovskogo gosudarstvennogo lingvisticheskogo universiteta*, *4*(775), 150-156 [in Rus.]

Mitina, A. M., Bagmetova, N. V., Kohtashvili, N. I., Litvinova, E. A., & Prom, N. A. (2013). *Professional English for Engineers*. [Ed. Mitina], Volgograd: VogGTU.

Oproiu, C. G., & Ianoş, M. G. (2018). A study on employability skills of engineering graduates. *EDU WORLD 2018 The 8th International Conference. The European Proceedings of Social & Behavioural Sciences, LXVII,* 605-614. https://doi.org/10.15405/epsbs.2019.08.03.72

Shemanaeva, M. A. (2018). Formirovanie universalnyih kompetentsyii bakalavra sredstvami inostrannogo yazyka [Key competences formation by means of learning foreign languages]. *Vyisshee Obrazovanie v Rossii, 27*(8-9), 89-95 (in Russ., abstract in Eng.). https://doi.org/10.31992/0869-3617-2018-27-8-9-89-95

Shiryaeva, N. N. (2013). Programma po inostrannomu yazyku dlya magistratury neyazykovogo vuza. [Foreign language programme for magistracy at a non-linguistic university]. *Pedagogika*, *1*, 118-120 [in Rus.]

Tăuşan, L. (2018). Evaluation from a student-centred perspective: comparative study. *EDU WORLD 2018 The 8th International Conference. The European Proceedings of Social & Behavioural Sciences, LXVII,* 1177-1184. https://doi.org/10.15405/epsbs.2019.08.03.144

Toporkova, O. V., Novozhenina, E. V., & Chechet, T. I. (2016). Sistema otsenochnyh sredstv pri obucheniji inostrannomu jazyku bakalavrov tehnicheskih special'nostej [Evaluation tools system when teaching foreign language for bachelor's of science]. *Vestnik Brjanskogo gosudarstvennogo universiteta*, *3*(29), 242-246. [in Rus.]

Toporkova, O., Novozhenina, E., Tchechet, T., & Likhacheva, T. (2014). Methodology of a modern foreign language lesson for postgraduate students of technical disciplines. *English Language Teaching, 7*(10), 35-39.

Vovsi-Till'e, L. (2018). Sovremennye tseli obucheniya inostrannym yazykam v neyazykovom vuze [Modern goals of teaching foreign languages in a non-linguistic university]. *Pedagogicheskij Zhurnal*, *3A,* 132-137 [in Rus.]

Williams, M. (2013). A holistic-componental model for assessing translation student performance and competency. *Mutatis Mutandis, 6*(2), 419-443. Retrieved from www.scopus.com