

DEVELOPING KEY COMPETENCIES IN THE PROCESS OF TECHNICAL ENGLISH LEARNING AS A FOREIGN LANGUAGE

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ABSTRACT. The economic globalisation and the intensification of competition for jobs require adapting to constant changes. This article analyses the experience of teaching English language in a technical university as a channel to develop key competencies. Taking into account the specifics of the process of training specialists, the publication underlies the formation of professionally oriented core competencies and skills of future professionals: knowledge-information processing, problem solving, decision making, self-learning, self-management, creative thinking, communication skills, collaboration with people and learning to learn.

While teaching the English language, it is possible to form and improve not only proficiency in the foreign language and culture, but also initiative personality ready for life-long learning with improved level of communicative, information, organisational, reflexive, and other general and educational skills. This contributes to the development of students' analytical thinking, teamwork, creativity, and cognitive activity. They are crucial and allow graduates to act effectively in the field of engineering and professional communication.

Keywords: technical English, key competencies, foreign languages.

РАЗВИВАНЕ НА КЛЮЧОВИ КОМПЕТЕНТНОСТИ В ПРОЦЕСА НА ОБУЧЕНИЕ ПО ТЕХНИЧЕСКИ АНГЛИЙСКИ КАТО ЧУЖД ЕЗИК

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РЕЗЮМЕ. Икономическата глобализация и засилването на конкуренцията за работни места изискват адаптиране към постоянните промени. Тази статия анализира опита от преподаването на английски език в технически университет като възможност за развитие на ключови компетентности. Отчитайки спецификата на процеса на обучение на специалисти, публикацията е основа за формирането на професионално ориентирани основни компетентности и умения на бъдещите специалисти: обработка на данни и информация, решаване на проблеми, вземане на решения, самообучение, самоуправление, творческо мислене, комуникативни умения, сътрудничество с хора и умения за учене.

При преподаването на английски език е възможно да се формират и усъвършенстват не само владенето на чуждия език и култура, но и да се създаде инициативна личност, подготвена за учене през целия живот с подобро ниво на комуникативни, информационни, организационни, рефлексивни и други общи и образователни умения. Това допринася за развитието на аналитичното мислене, умението за работа в екип, креативността и познавателната активност на студентите. Те са от решаващо значение и позволяват на завършилите да са ефективни в областта на инженерството и професионалната комуникация.

Ключови думи: технически английски, ключови компетентности, чужди езици.

I. INTRODUCTION

In the contemporary interconnected world, proficiency in English has become indispensable, especially in the technical fields. As industries evolve and globalise, professionals are increasingly required to communicate complex ideas and collaborate with international counterparts. For non-native English speakers, mastering technical English is not only about fluency but also about developing key competencies crucial for success in their respective fields. Technical English encompasses specialised vocabulary, grammar, and communication skills tailored to specific fields, such as engineering, IT, and science. However, the process of learning technical English goes beyond mere linguistic acquisition; it involves cultivating a range of competencies essential for navigating professional environments effectively. The key competencies are increasingly important in today's world of globalisation. The most significant is the meaning of the concept of the key competencies, because its personal factor can be highlighted. The importance of key competencies is influenced by the changes of working system, requiring adequate professional knowledge and skills (Zimnayay, I. A. 2003). Broader knowledge and abilities guarantee easy adaptation and more flexibility on the labour market, higher employability, social security, and meaningful personal life. Key competencies define (Cheng, X. and Zhao, S. 2016) the

abilities reflecting behavioural characteristics and individual performance. English learning and teaching play a significant role in cultivating the personality of future engineers and should be shifted to language competence, thinking quality, learning ability, and cultural awareness. While teaching technical English as a foreign language, it is possible to form and improve not only proficiency in language, but also professional communication of future engineers, to develop persons with initiative who are able to work in a team and are getting ready for life-long learning.

Key competencies are abilities to perform many activities based on the set of knowledge, skills, and values that can be developed in various situations and adapted in different contexts. The concept of competencies defines personality behaviour and characteristics. It expresses, in a broad sense, adaptive and effective functioning of the person in order to create his/her wealth and successful life. The system of key competencies boosts sustainable student development.

The aim of the research is to perform a summary of key competencies.

The object of the research presented in this paper is the conceptualisation of some key competencies necessary for future mining engineers.

The methods of the research are literature review, analysis, and synthesis.

II. THEORETICAL FOUNDATION AND CONCEPTUALISATION OF KEY COMPETENCIES

Teachers bear important responsibility and should explore and use different strategies to put the concept of key competencies into practice in the process of teaching English as a foreign language. Key competencies are the centralised embodiment of the value of engineering education. The important task of the course unit in English is to develop students' language communication skills and cultivate their key competencies in language practice activities. Through English learning, students gradually can form core abilities, correct values, essential qualities, and necessary character. The formation of key competencies (Khutorskoy, A.V., 2003) lays the foundation for life-long learning and promotes students to become well-rounded people. The process of English language learning puts forward higher requirements for the educational and teaching activities because it is also a process of establishing a correct cultural awareness and value orientation. English learning cannot be limited to teaching basic knowledge of textbooks, but also to paying attention to whether students can master knowledge about skills, attitudes, emotions, and other aspects in the process of English learning. Implementation of the method of integrating English key competencies into the teaching can avoid the occurrence of the “dumb English” phenomenon.

The results of pedagogical monitoring and analysis of the existing condition shows that in the first academic year in university, the students:

-Have low level of goal-setting, proficiency in planning and reflection;

-Have difficulties in summarising, compression, and annotation of information;

-Not always correctly build the statement, are not able to criticise structurally and with convincing argument during upholding their point of view.

It is necessary to focus attention on the identity of the student to open their personal potential through regular identification of opinions by means of exercises and using technological cards of cognitive, analytical, and practical training. Respect for the personal dignity of each of student creates a comfortable atmosphere in lessons. Self-determination training begins with express information offered to students for discussion. The students have to express a consent or disagreement according to the scheme: thesis – argument-summary and a different point of view are allocated. These exercises promote the formation of abilities to generalise, systematise, synthesise, and analyse. The goals of such training are the formation of critical thinking, tolerance, and communicative competence. The objectives are achieved if: students are able to state and prove their opinion, define the knowledge and compare the received information with available life experience. Also, discussions, role-playing games, sketch, round table methods are used. Out-of-class independent work of students is of great importance – it teaches reflection, promotes self-development of the personality, goal-setting, planning activities for the achievement of the purpose. Solving practical problems demands mobilisation of all intellectual abilities and actually performs an essential function of training a scientific-minded person.

The development of key competencies in the process of technical English learning as a foreign language at university is

possible by using guiding multi-dimensional interaction, situational teaching, by focusing on the improvement of students' language competence, cultivating their cultural awareness, enhancing their thinking quality, and adopting their emotional experience, as well as by taking into account students' learning effectiveness and the teaching efficiency of the lecturer (Shu, D. 2017). Front-line teachers must integrate goals of knowledge and skills, processes and methods, attitudes, values, and key competencies into real classroom teaching. The ultimate learning goal of students is to apply the acquired knowledge to real life, and make English not only a factor and tool for thinking and communication.

The basis of the key competencies of the course unit in English is language competence. It includes language knowledge and language skills, and helps students broaden their thinking and carry out cross-cultural communication. In turn, cross-cultural communication activities can improve students' language competence. Students' language skills can enable them to acquire language knowledge, master language skills, and form good language awareness and language thinking.

The learning ability can play a role in improving learning efficiency and help students to: form a good sense of self-management, form the ability to independently organise their own learning process, and develop good learning habits. It requires students to have a correct understanding of English, have a sense of active use of English, achieve the highest goal of thinking in English developing individual learning methods and strategies in the process of English learning. Learning to learn is a complex process in which, analysing a learning situation reflectively, a student can identify their strengths and weaknesses, and therefore use the proper strategy. The teacher must focus on developing students' English learning attitudes, motivation, and interests, their awareness and habits of actively participating in language practice to promote skills for autonomous learning and sustainable learning attention. Cultivating students' interest in learning is possible mainly through competition and praise.

The information processing and thinking quality includes the formation of students' logical, critical, and innovative thinking. It is necessary to collect and process information, forming correct value judgements about things, and to improve students' ability to raise, analyse and solve problems. Cultivating students' thinking quality can enhance their thinking about problems from new perspectives and methods, generate a spirit of daring to question and being good at putting new ideas forward.

Civil and social competencies participate in society in different functions and they include personal, inter-personal, and inter-cultural abilities. Persons must be confident and tolerant, with a sense of responsibility, able to understand and evaluate their own and other's opinions in a cooperation and constructive communication, creating a justice-based environment.

Cultural awareness is the value orientation of students' language learning and it emphasises on the formation of students' cross-cultural cognition, attitudes, and behavior. It has an important role in cultivating a sense of community with a shared future for mankind, establishes feelings of family and country, strengthens cultural self-confidence. Cultural awareness is the ability to communicate with people of culture and arts, developing and enriching one's cultural outlook, and participating in the artistic expression activities – clubs, societies, and associations.

The sense of initiative displays human creativity, thrusting, and the desire to be independent. It includes orientation towards the achievements and corresponds to entrepreneurship and risk tolerance – the ability to assume the risks and to act rationally in risky situations. This competency is necessary for everyone in a competitive job market and in the constantly changing world.

Integral parts of the conception of key competencies (Shi, J. 2014) are critical thinking, problem solving, risk assessment, and decision-making. They provide added value in active citizenship, social cohesion, satisfaction, and motivation by offering adaptability and flexibility.

Technical English learning often involves tackling real-world problems and case studies relevant to students' fields of study or professions. By grappling with challenges and brainstorming solutions, learners hone their problem-solving skills and learn to apply theoretical knowledge in practical contexts — an essential competency for the innovation and advancement in technical fields.

Technical English learning fosters critical thinking skills by engaging learners with complex concepts and problem-solving tasks. As they decipher technical texts, analyse data, and interpret instructions, students develop the ability to evaluate information critically and make informed decisions — a vital competency in professional settings where precision and accuracy are paramount.

Effective communication lies at the heart of professional success. Technical English learners not only acquire language skills but also learn to articulate ideas clearly and persuasively, both verbally and in writing. They practice drafting reports, giving presentations, and participating in discussions, enhancing their ability to convey technical information to diverse audiences with clarity and confidence.

With an increasingly globalised workforce, cross-cultural competence is indispensable. Technical English learning provides opportunities for learners to interact with peers from different cultural backgrounds, fostering empathy, tolerance, and adaptability. Understanding cultural nuances and communication styles is crucial for building successful collaborations and navigating multicultural work environments effectively.

The dynamic nature of technical fields necessitates a commitment to life-long learning. Technical English learners cultivate a growth mindset, recognising the importance of continuous skill development and staying abreast of industry trends and advancements. By embracing lifelong learning, professionals can adapt to evolving technologies and methodologies, ensuring their relevance and competitiveness in the global marketplace.

Teachers are faced with some issues in their practice:

1. Basically, they follow the inherent teaching model, ignoring topics and texts oriented to key competencies.
2. Too much attention is paid to testing, focusing on language training and memory instead of on more language practice activities.

III. STRATEGIES FOR CULTIVATING STUDENTS' KEY COMPETENCIES IN ENGLISH LEARNING IN THE TECHNICAL UNIVERSITY

When students possess the English core competencies, they can learn and improve themselves during the learning process and truly apply the knowledge they have learned to

practical applications. Students can use the cognition formed in the process of English learning to think about various issues in their study or life, put forward their own opinions, and express them in their own ways. By changing the inherent understanding of English subject – that learning English is not only to learn knowledge about English itself, but also to allow master other skills that can improve one's overall quality – the students can have a positive learning attitude and a strong interest in learning English.

Teaching practice must improve students' perception of culture on the basis of their language skills. Method of comparing and contrasting is overused, and other methods such as immersion teaching, content-based approach, or a situational approach, are neglected. Teacher must pay attention to the development of intercultural awareness and intercultural communication skills, sharing creativity and imagination. Students should be provided with a global vision by learning the English language.

By creating a specific atmospheres or scenes relevant to the teaching context, we can enhance students' learning motivation, promote their learning potential, and stimulate them to have a positive emotional experience. Teacher should change the traditional knowledge explanation in the teaching process with provoking students' learning enthusiasm in vivid scenes and objective world, paying attention to comprehensive language ability, communicative teaching, and cooperative learning. It is possible to achieve the goal of helping students accurately, quickly, and proactively understand the knowledge learned on the issue, using activities and games that students are willing to participate in and that are based on their language capacity. Suggestions for improving the teachers' professional ability to increase their students' cultural awareness can be given, such as bridging the culture gap with good communication skills, celebrating traditional holidays and festivals, etc.

In order to improve teaching efficiency, activating the teaching model of “task+situation+activity” should allow students to engage in exploratory learning, enabling them to experience, understand, and apply language, comprehensively improving their listening, speaking, reading, and writing abilities, cultivating student' self-confidence and interest.

It is necessary to strengthen the teaching of English knowledge while appropriately infiltrating some cultural and emotional aspects, so that the knowledge that students master is not just grammar, phrases or words, but can extend to the related cultural connotations in English.

To develop students' deep thinking, a teacher should ask questions that guide and stimulate students' thirst of knowledge and curiosity. The cultivation of thinking predictability has an important role in accelerating students' cognitive process, improving its efficiency. The teacher can instruct students to think more organised and systematically, using activities as comparison, collation, analysis, and summary to infer the content of any text (Lin, C. 2016).

The main goal of learning guidance is to change students' learning attitudes. A teacher should: fully understand their students, take various measures to enhance students' awareness, and expand the range of strategic choices. For example, a teacher can guide students to divide long sentences into several short sentences, extract the main sentence from them, and temporarily remove the auxiliary explanatory parts as parentheses and clauses.

A teacher should try to set open questions in order to stimulate students' desire to think and promote their critical spirit. A lecturer should encourage students to cooperate and explore independently, to interact with students more, and respond positively to students' feedback, to provide as many opportunities as possible for students to express their personal views and ideas.

The construction of a mind map is an effective way – students interact with the text, which is beneficial to transfer the language they have learned and use it for richer and self-topic presentations. A teacher can guide students to refine the detailed, basic, and main information of a text, clarify the surface and deep information, summarise the author's views and the author's value orientation, streamlining the development of the text and constructing a thought map.

We know that in the teaching process, there are many ways to evaluate the learning effectiveness. A teacher should actively use multiple evaluation methods – a combination of formative, summative, and task-based evaluation methods to estimate students' academic performance. Also, a teacher should actively orientate students to conduct effective self-evaluation, to cultivate their abilities of self-regulation and self-monitoring during the learning process.

IV. CONCLUSION

World globalisation is accompanied by increasing mobility of technical specialists and they are now faced with new personality demands, like: to be not only highly educated and competent, but also ready to prompt changes in society and continuous development, capable to estimate cross-cultural and linguistic situations, tolerant, able to apply own knowledge rationally, etc. The learning of English language is an approach to cultivate students' key competencies. This process requires the teacher to combine (attach) language, thinking, and culture as an integral part of English learning activities. Learning English as a foreign language in technical universities is not only a means of learning linguistic knowledge, but also a bridge to cultivating core competencies. During the English language teaching, the teacher should not only pay attention to the instrumental nature of the educational process – the language as a tool for communication, for thinking, for learning other subjects – but must also focus on the humanistic nature of English teaching, e.g. international perspectives, value

orientation, culture, thinking patterns, cross-cultural understanding, and social responsibilities. The formation and improvement of key competencies of future professionals in the course of the educational process in a modern university is a difficult and rather long process. It is preceded by two essential periods: the period of accumulation of the cognitive component, and the period of the analysis of knowledge. The main concern of the study is whether the teacher can distinguish between the key competencies and a sufficient understanding of the English language. The development of students' key competencies in the process of technical English learning as a foreign language requires appropriate content in the teaching resources and materials, as well as institutional support.

In conclusion, technical English learning as a foreign language is not merely about mastering linguistic structures; it is a multifaceted process that nurtures a range of key competencies essential for one's success in technical professions. From language proficiency and critical thinking to cross-cultural competence and digital literacy, the journey of learning technical English equips individuals with the skills and abilities needed to thrive in today's interconnected world. By embracing these competencies, learners can confidently navigate the complexities of their chosen fields and contribute to innovation and progress on a global scale.

References

1. Cheng, X. and Zhao, S. (2016). On student key competency in English as a foreign language. *Curric. Teach. Method* 36, 79-86.
2. Khutorskoy, A.V. (2003). *Key competences. Technology of designing/Pedagogics*, M., vol.5, 2003.
3. Lin, C. (2016). Research on the key competencies of student development in the 21st century, *Beijing Normal University Press*.
4. Shi, J. (2014). Key competencies: in order to cultivate all-round development people. *People Educ.* 10, 13-15.
5. Shu, D. (2017). Some thoughts on the key competencies of English subject. *Shandong Foreign Lang. Teach.* 2, 35-41.
6. Zimnayay, I. A. (2003). Key competencies – a new paradigm of education result. *Higher education today*, 5, 35-41