

# ELECTRONIC VISUAL LEARNING AIDS FOR THE EFFECTIVE CLASS IN HIGHER EDUCATION TOWARDS METACOGNITIVE LEARNING

Dileta Jatautaite<sup>1</sup>, Edita Butrime<sup>2</sup> and Vaiva Zuzevičiūtė<sup>3</sup>

<sup>1</sup>*Vilnius University Business School, Saulėtekio av. 22, LT-10225, Vilnius, Lithuania*

<sup>2</sup>*Lithuanina University of Health Sciences, A. Mickevičiaus str. 9, 44307 Kaunas, Lithuania*

<sup>3</sup>*Mykolas Romeris University, Public Security Academy, Maironio st. 7, Kaunas; Ateities st. 20, Vilnius, Lithuania*

## ABSTRACT

Notwithstanding the discussions – valid! -about the necessity to preserve multilingualism and thus facilitate and cherish multifaceted cultural diversity, however, the English language has firmly established itself as a lingua franca globally. Consequently, employment arena requires employees to achieve high standards of English communication skills, knowledge and competences. The achievement of the level may be facilitated by an abundance of teaching and learning tools, aids at the disposal of a contemporary teacher in higher education. One of the tools in the tool kit of a teacher in higher education right after the pandemic is the wider spread usage of the electronic visual aids, which were incorporated into everyday teaching practices during COVID-19 pandemic out of necessity, however, may have proved themselves being useful further on. Visual aids, as pedagogy, due to the research and theories, offered, by esteemed thinkers in the field (Gardner, 1983) stated, were always considered as useful for the quality of teaching and learning of students in the classroom. However, once COVID-19 struck, even the teachers who had been reluctant previously to use the el. tools (including el. visual aids) previously, had been pushed to do exactly that. Many universities have managed to use the COVID-19 pandemic as an opportunity for modernization foreign language programs, curriculum content and helped modernize the way of work and study for the better. Implementing new technologies such as el. visual aids into the language learning and teaching environment, specifically for a new generation of students changed the landscape of pedagogy forever. According to the analysis of the findings from the empiric study, the results of which are presented in the paper, using el. visual aids may have certain positive effect on certain aspects of learning.

## KEYWORDS

Electronic Visual Aids, Communicative Competencies, Foreign Language for Specific Purpose

## 1. INTRODUCTION

Contemporary globalized and technologized world is evolving fast, it takes requires energy and attention to stay attuned to the process. We are forced to adapt and keep with this pace otherwise we will be forced to become merely observers of the rich life in all walks of life: employment, education, even social services and leisure activities. Time and place of residence have taken on a completely different meaning due to new technologies, for example, it does not matter any longer where your workplace is or what nationality you are; you can work efficiently and effectively remotely using the latest electronic tools and means from any corner of the world and any time zone. Due to these circumstances, there is no denying the way the students study languages has changed, but in many ways the change was additionally prompted by the pandemic. Many universities, and that certainly stands true for the Lithuanian universities, have managed to use the COVID-19 pandemic as an opportunity for change and helped change the way of work and study. This shift in studying, including languages, languages has encouraged education to implement advance electronic tools usage practices in educational methodology. Interestingly, there had been colleagues before pandemic, who had been savvy in using the tools before 2020, however, also native and foreign language teachers were forced into a crash course on modern technology. As a result: more than ever students and teachers have the skills and knowledge to work more effectively and successfully with new technologies.

Thus, the **aim** of the article is to analyze the implementation of electronic visual aids facilitating the foreign language teaching and learning.

The **object** of the research – usage of electronic visual aids for teaching and learning for foreign language in a contemporary higher education (further on - HE) class.

The **objectives** of the research are based on three questions such as: What is the possible educational value of using electronic visual aids for teaching and learning a foreign language, based on the theoretical and empiric analysis? What are the possible educational gains/added value of using electronic visual aids for teaching and learning a foreign language, based on the theoretical and empiric analysis?

**Research methods:** critical analysis of scientific literature, empiric study, based on the quantitative research methodology in social sciences (questionnaire).

## **2. CONTEMPORARY CLASS IN HIGHER EDUCATION AND THE EL.VISUAL AIDS: OVERVIEW OF SOURCES**

Many language teachers and students would never have had the opportunity or reason to become so clued up on modern technologies if it had not been for pandemic. Due to it, during at least a year and in some instances, longer, many language courses were provided entirely online by universities. It turned out to be popular among tech-savvy generation students. It means that if after the pandemic modern universities return to using only traditional teaching strategies with the same set of teaching materials, they would definitely side track the contemporary students' expectations and general ambience. In other words, today language teaching and learning paradigm has shifted, probably, forever. During this unprecedented pandemic time, students and teachers have embraced new skills and developed new behaviors which have improved the way they operate and process in the classroom, which, we think, is the most significant issue in this context. However, there is still a problem of attaining good foreign language skills, knowledge, and competencies that needs to be addressed. In addition, there is a demand to learn the language as quickly as possible with a good language command otherwise you will turn to an unlucky wretch: no job in any multinational business company, or work as a lawyer or an officer. The world has shrunk so much that it is no longer enough to speak one language. English has become a lingua franca in the Global world (the term lingua franca is defined as a language systematically used to make communication possible between people without the use of their first language). Consequently, employers require from their employees high standards of English communication skills, knowledge and competencies. In terms of career prospects speaking another language has become an undeniable plus, or rather a 'must' on the resume. Several studies show a direct correlation between the importance of the first salary and the ability to speak a foreign language.

However there are other voices, for example, the Equal Employment Opportunity Commission (EEOC) "views rules requiring employees to speak English at all times at work as a burdensome condition of employment" (shrm.org). We totally agree with the standing, by the organization: the EEOC asserts the importance of restricting employees' ability to speak their native language though it can cause the "atmosphere of inferiority, isolation, and intimidation based on national origin" (shrm.org). It means that in an age of borderless communication and travel, it seems we are almost pushed to use the aforementioned lingua franca, which may have – and does! -have a detrimental effect of individual's right to communicate in their national language, foster their national identity. Though, besides the English there are many other languages that belong to a group of foreign languages for a specific purpose, for example, German, French, Spanish and many others that are not the native language of a learner. Notwithstanding our general concern for linguistic and cultural diversity, as teachers in higher education we have our professional duties. The duties include both to teach the foreign language and to do that in a professional way, attuned to students' expectations and general ambience. Sometimes (actually, quite often) we therefore need an assistance from our colleagues in IT departments or the colleagues who have the IT competence due to other reasons, such as general interest in technologies for education. Generally, cooperation between teachers and professionals in other fields is essential for qualitative educational services in a contemporary higher education (Zuzeviciute and Butrime, 2016).

### **3. TEACHING AND LEARNING FOREIGN LANGUAGE (ENGLISH) FOR SPECIFIC PURPOSES: HISTORIC OVERVIEW AND THE CONTEXT**

The second foreign language term was introduced several decades ago; Klein, for example, indicates: “foreign language’ is used to denote a language acquired in a milieu where it is normally not in use” (1986: 19). However, English is the most studied foreign language in the world, with 1.5 billion foreign language learners.

Using new technologies such as el. visual aids into the language learning and teaching environment, in particular for Generation Z and Millennials is relatively easy, as they are technology savvy (Jatautaite and Kazimianec, 2019). As the Pew Research Center put it: cutoff point for the end of the Millennial generation is behind us. Millennials (according to the organization) are those who are born between 1981 and 1996. Millennials are described as the ones who are essentially used to taking the advantage of social media and consistently using connection to the internet. Hence, the people who are born in the late 90s cannot imagine their lives without the use of electronic tools. Pew states that the generation that comes after Millennials is named as the post-Millennial generation or Generation Z (Loria, 2018).

The importance of usage of visual aids was emphasised since the beginning of the professional pedagogy era (e.g., see: ideas of ‘pictures’ by J.A. Comenius in 17th century, here from Gedvilienė, Zuzevičiūtė, 2007). However, the most influential theory of recent times was suggested by Gardner (1983), where the idea of multiple intelligences was presented with the accompanying idea of the need to address learning by emphasis on verbal, audio, visual, musical, interpersonal, intrapersonal and other aspects of human thinking, and thus learning. The el.visual aids (almost always incorporating also verbal, audio, other aspects) expand further the available assortment for teachers (and learners). There are many studies on the effect of using visual aids based on using electronic devices (Dalali and Mwila, 2022; Lopez, 2022; Martiniello et. al., 2022). Lopez explains visual aids as items “of illustrative matter, including, but not limited to a film, slide, graph, chart, or model, designed to supplement written or spoken information so that it can be understood more easily” (2022). Waite (2006) stated that electronic devices could facilitate the students’ participation in different social and cultural environments and to improve communicative competencies by using authentic, contextual, and cultural materials. According to Jatautaite and Kazimianec (2019) technology assisted visual aids in learning and teaching curriculum may better engage learners in communicative activities in a much more effective way. Generally, visual aids help to better focus attention on the content to be learned and remember the concepts they have just learned, providing associative learning by linking the concept to the visual representation (Stancampiano, 2013). Moreover, visuals aids benefit the learners better store verbal information in the brain than merely verbal communication (Antonova et. al., 2019). Besides, while using visual aids teachers have additional opportunities to engage learners and help to clarify difficult concepts (Nitu et. al., 2017). Quecan (2021) states that using visual aids may also enhance the motivation of language learners. Ahmed (2018) adds: visual aids increase students’ involvement and interaction, students become more involved in language learning process and they are more attentive to process, which leads to increased understanding. Today visual tools comprise multimedia pedagogical tools, which range from simple static characters that provide information to complex and dynamic animated three-dimensional characters that narrate information while gesturing (Castro-Alonso et.al., 2021). Visual (electronic) aids are available in many forms: such as pictures, photographs, drawings, flashcards, wall charts, pictures stories, maps, and movies – even readily accessible objects brought to the classroom ranging from “a bottle opener to small toys” (Allen, 1983; quoted in Atas, 2019). What concerns the research of this article, it deals mainly with visual aids, which may be incorporated into teaching and learning either in a form of or: “electronic textbooks and materials, smartphones, tablets and internet extensions, computers, smartboards, TVs and projectors” (Ünal, 2022). This explanation of visual aids best suits the research problem due to the advancements in technology since the number, assortment, inventory, format, also media of visual aids for education have increased and diversified.

Dudley-Evans and St. John (1998) provide a comprehensive description of the foreign language for specific purpose as language teaching designed to meet the specific needs of the learners through employing effective teaching methodologies and teaching activities. This concept is based on the focusing of personal language needs on specific goals. In this respect, the teaching of a specific purpose language, unlike the teaching of a general language, focuses on a specific area, the boundaries of which are determined by the needs of the learner. Moreover, this concept is based on the importance of being aware of what and how to teach it. In this regard, objectives, content and teaching context are determined by focusing on the specific goals of the learner, as it was identified several decades ago in studies, which provided grounds for a generation of teachers and learners

by now (Hutchinson and Waters, 1987: 18-19). For example, teaching language for specific purpose to business management students is mainly focused on developing writing skills, to the military is centered on speaking and listening skills or basically communicative approach, teaching language for future law enforcement officers encompasses both formal register (for academic, professional settings) and in-formal register (for communication with citizens and especially residents whose English may be either rudimentary or street-wise based). Moreover, in terms of teaching law enforcement students, it depends upon the purpose of the course whether they need written and verbal communication skills. That is, some of the students later in their professional life will work in court, prosecutor's office and may be will even participate in legislature (even internationally), or at least organize and implement operations internationally; they will use formal register, surely, written communication will comprise a huge part of their work. Some other students will directly work 'in the field' of law enforcement, which will inevitable include using the informal register, primarily, verbal communication. On the written side, law enforcement officers must be able to communicate the details, for example, describing findings in a crime scene or report clearly and thoroughly in participating in events, activities of international and local organizations. On the verbal side, they must communicate positively and with sensitivity to diversity (nationality and culture of people and populations they work with). Thus, the foreign language for specific purpose focuses mainly on the use of language (Farmati et. al., 2022). However, we, the authors of this paper will argue that also teaching grammar and language structures are very important if a possible career in legislature (especially, internationally) is kept in mind. Certain (advanced) level of command of professional foreign language is an absolute necessity in those cases. This is especially valid in a contemporary situation for an increased need for international cooperation against the direct threats to national and international security due to the war against the Ukraine.

Current state of methodological educational approaches in synergy with rapid developments in business, military, and law enforcement poses certain expectations (advanced!) for a second foreign language competencies (in our case: English for Specific Purpose).

In summary, language teaching for specific purpose is defined as an approach that aims to meet the academic and vocational/professional needs of learners and is student-centered, multi-disciplinary and an effective combination of theory and practice (Anthony, 2018).

When the definition is so ambitious, teachers and learners must have wide opportunities to use specifically technology supported visual aids in communicative language learning and teaching process. Traditional approaches focus on learning the language without too much specific focus. According to the communicative approach, the use of language as a means of communication is more important than its rules. Therefore, communicative competence is one of the main aims in communicative approach. The communicative competence of teaching and learning the foreign language for specific purpose is alignment to reality. Grammar is important but in communicative approach the learner should also use communication strategies and be aware of the features of discourse and sociolinguistic rules of interactions (Savignon, 2017), Mart (2017) claims that rules of both language use and grammar have an important role in gaining communicative competence. Communicative competence has four main components: linguistic competence, sociolinguistic competence, discourse competence, strategic competence. Thus, while teaching and learning the foreign language for specific purpose "there should be a close link between the tasks performed by learners in the language classroom and in the outside world", which is authentic learning (Van den Branden, 2006; 6). Therefore, while, in teaching foreign language for specific purpose teachers incorporate technological (electronic) equipment or any digital device in designing curriculum, instruction (Garofalo and Farenga, 2021), they both facilitate (at least potentially) learning and at the same time attune the classroom experiences to the everyday life practices and routines of contemporary young people, the students.

The critical analyses of sources highlight the importance of using visual aids (of any kind and format), because of the multifaceted nature of human learning (as it was suggested several decades ago by H. Gardner. The IT assisted teaching, including using el. visual aids, which stormed into classes in HE during the last few years of the pandemic may have a positive role in enriching teaching and learning experiences. This is especially true, while learning foreign language for specific purposes, because of the possibilities for diverse assortment of 'windows' into realities of professions: e.g., analysis of news broadcasts on the current situation in markets or a particularly intriguing criminal case. These 'windows' allow teachers to start discussions on realities out there, to attune class and profession and thus to ensure relevance between the curriculum and the everyday routines of young people.

It seems logical here to share our position as professionals in contemporary HE, specifically, regarding the need to use el. visual aids in a responsible way. That is – even if ideas of esteemed and distinguished theoreticians in psychology and education are focused on a variety of channels, formats and media for presenting information, caution is advised. While learning is individual, and thus a variety of channels, formats and media for presenting of information is necessary in order to accommodate different individuals in class, however, learning also requires time for processing and reflection. That potentially may lead – and should- to building metacognitive learning practices among higher education students (Masoodi, 2020; Zuzeviciute, 2011).

We want our students to be reflective about their own learning, in order to equip them to be reflective in their professions, and to participate in life long learning in meaningful and responsible, also rewarding way. Therefore it is very important both to use el. visual aids and also to refrain from using them too much, too often. There should be a balance between input and reflection, and the balance between time to consume information, and the time to reflect on it; the time to build structures and the time to fill in those structures with additional materials.

Thus, teachers in contemporary HE class should not overplay they hand in using el.visual aids, even if the benefits are evident: aids help to link materials in textbooks to everyday realities, to motivate students, to break up routines in class. And yet, for the in-depth learning, also some routine is necessary, as it is necessary to have some time to reflect on materials, to discuss materials externally and internally. Metacognitive learning needs to be fostered together with communicative competencies.

Our professional practice and experience enables us to share that in order to build an engaging yet metacognitive learning orientated class, there should be limits in using el. visual aids, our suggestion being to allocate up to 5-7% of time for actual input with el. visual aid; provided it is logical to use aids in general logics of a given class. Surely, the analysis, reflections follow, thus the total amount of time may reach up to 10-12% of time in a given class.

Moreover, not every class and not every theme needs to be illustrated in that particular format. Variety, flexibility and routine need to be balanced in order to foster meaningful learning, which encompasses retaining information and then, preferably, building metacognitive learning practices.

#### **4. SOME FINDINGS OF AN EMPIRIC STUDY**

Once it was established that el. visual aids seem to have support of researchers, esteemed scholars, two issues become evident.

Firstly, language teachers, notwithstanding the ‘fight or perish’ experiences during pandemic, still in many cases need support of IT department colleagues or other colleagues who have gained competencies in the field because of other reasons (for example, they had participated in projects in the field, or just had been interested in IT assisted teaching) (Zuzeviciute, 2021). The support teachers provided for each other was invaluable, however, the discussion along these lines exceeds the scope of this paper.

Secondly, while there seems to be a unanimous agreement among scholars regarding the effectiveness and important role of el. visual aids in educational settings, it was decided to analyse whether Lithuanian students share the same or similar enthusiasm regarding potential benefits. Therefore, three phased pilot empiric study was designed and implemented; here we are presenting data from the second phase, while the results of the first phase are presented elsewhere: Jatautaite, Zuzeviciute, 2022, paper accepted, pending publication (Proceedings of ALTA’22. Advanced learning technologies and applications. Digital Competencies). This phase of the study aimed at examining students’ perspective on foreign language learning for specific purpose using el. visual aids with a focus whether aids may facilitate learning the language for specific purpose, whether students think that using aids motivates them to learn faster and in a more effective way. The students were invited to share their perspective in an anonymous questionnaire, with several questions dedicated to the profile of respondents and 16 questions dedicated to the usage of el. visual aids in class. Students from two Lithuanian universities were invited to share their perspective. In the sample (N= 91, N from U1=51, N from U2=40), men and women were represented almost equally (43 men, 48 women) in the sample, they were undergraduate students (18-23 years old, thus, members of Generation Z). The study was carried out during the last quarter of 2022 and the first quarter of 2023; all of the respondents studied English as a foreign language

for specific purposes: Business English and English for law enforcement. Due to the limitation for the paper, certain findings are presented rather than all of them.

Findings indicate that students seem to be reflective, they notice that the el. visual aids (which in a majority of cases include audio, other aspects, further enriching learning) are being used in the HE classrooms, 95 percent of students indicate that to be the case. Regarding the benefits, the perspective of students seems to indicate as a main benefit the positive effect on developing competence of comprehension via listening; professional vocabulary was ranked second. Positive impact on developing speaking skills was ranked third, and positive impact on readings skills was ranked fourth; the positive impact on writing skills was ranked as the last one (Fig. 1).

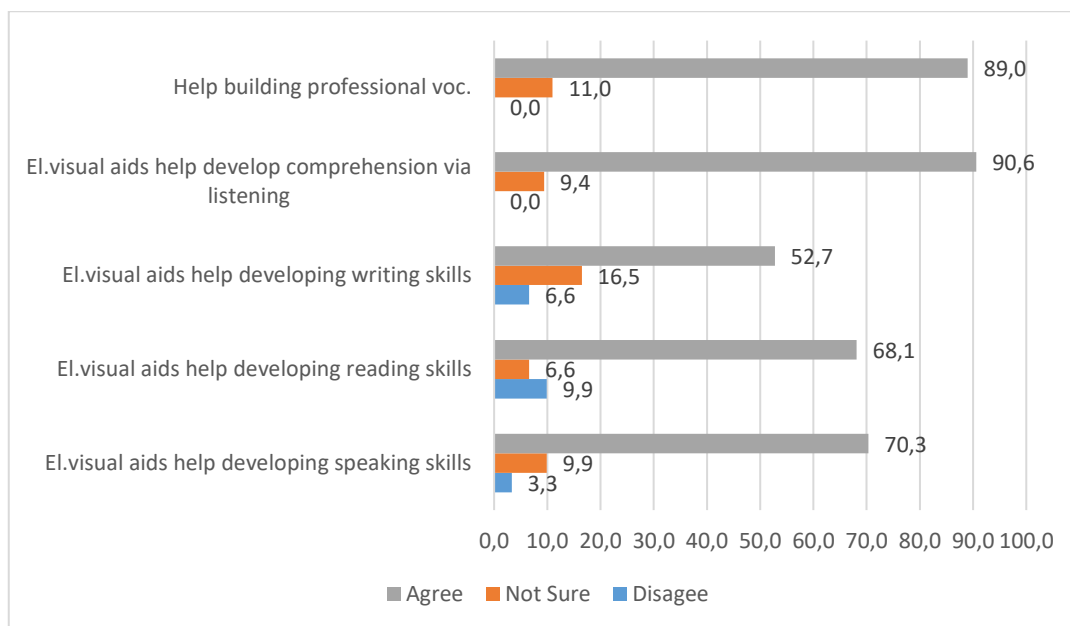


Figure 1. The benefits of using el. visual aids in contemporary HE classroom

In general, almost all respondents indicate the el. visual, which in most cases (e.g., clip from News, such as BBC, CNN or similar) will encompass verbal communication, musical inserts, illustrations (e.g., footage of the event of a crime scene), the explanatory text; that is, contemporary el. visual aids provide a multitude of learning channels for our students. Thus, not surprisingly, almost everyone (97%) indicates a general consent that el. visual aids help developing communication skills.

Regarding other aspects, emphasized by scholars, such as motivation, joy of learning, the latter was noted by more students than the former; but only just above the half of respondents thought el. visual aids being helpful for retaining information, especially, the terminology (Fig.2).

The findings about students' relative hesitance regarding the el. visual aids being useful for retaining information, and for making learning easier are aligned to our own observations regarding the limits of educational value of using el. visual aids. It seems that even our students note that the studies in HE inevitable include discipline and hard work, though they indicate observing that rich assortment of tools, modes, forms and for enriching pedagogical practices is used. While visual aids help break up routine in class and to link textbook materials to realities, but learning is always linked to discipline, internal and external reflection and effort. While further discussing the findings in the light of theoretical considerations and in the context of our own professional experience, also the findings of our own previous studies we may posit with a considerable degree of confidence that even if students do not indicate certain tool or method being useful, it does not negate the usefulness per se. Certain reluctance to indicate benefits may be explained by the fact that students are just concentrated on other issues: succeeding in a particular course-unit, covering curriculum. It is only after a specifically organized reflection that they start indicating certain benefits (or weaknesses).

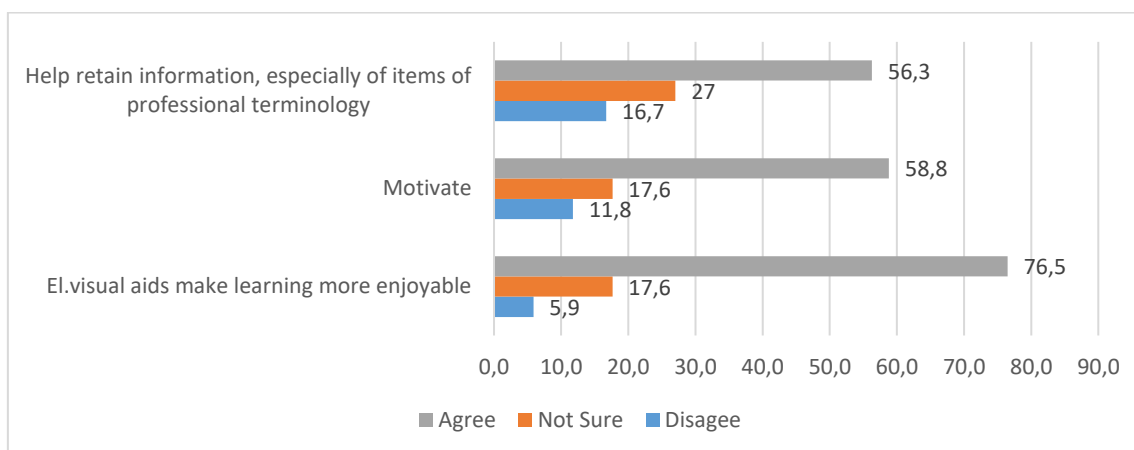


Figure 2. Other benefits of using el.visual aids in HE class

While our main goal is to support students' academic growth, we, teachers, do not always have time or duty to organize such in-depth discussions; moreover, not all students in all cases need that. They have their own goals specific to their curriculum, and, if they are not covering pedagogy course, the discussion is not even needed; if they observe benefits and indicate them, we should be content, and for more subtle analysis turn to other methods of research.

## 5. CONCLUSION

As a response to globalization and Covid-19 pandemic, language teachers were forced to reconsider the ways teaching and learning of the foreign language for specific purpose. They had to organize teaching in order to promote appropriate pedagogical flexibility, creativity in classrooms through communicative approach with the distance education as a looming reality. Using visual aids (of any kind and format), because of the multifaceted nature of human learning is important (as it was suggested several decades ago by H. Gardner). The IT assisted teaching, including using el. visual aids may have a positive role in enriching teaching and learning experiences. This is especially true, while learning foreign language for specific purposes, because of the possibilities for diverse assortment of 'windows' into realities of professions. These 'windows' allow teachers to start discussions on realities out there in professional context, to attune class and profession and thus to ensure relevance between the curriculum and the everyday routines of young people. Teachers in contemporary HE class should be reflective in using el.visual aids, even if the benefits are evident. While el.visual aids help to link materials in textbooks to everyday realities, to motivate students, to break up routines in class, yet, for the in-depth learning, also some routine is necessary. Students need to have some time to reflect on materials, to discuss materials externally and internally. Metacognitive learning needs to be fostered together with communicative competencies. Not every class and not every theme needs to be illustrated by el.visual aids. Variety, flexibility and routine need to be balanced in order to foster meaningful learning, which encompasses retaining information and then, preferably, building metacognitive learning practices. Empiric study revealed that contemporary students note that HE class is enriched by using el. visual aids, they note benefits of using aids for building professional vocabulary, development of communication competencies, they agree that using aids made the class more enjoyable. The findings of our study show that some of aspects outlined by scholars resonate among Lithuanian students, but some other - less so, thus further study in the field may be warranted.

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