

4. Теорія і методика професійної освіти

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PRINCIPLES OF MULTIMEDIA IN ESP CLASSROOM

At present, more and more foreign language teachers are turning their attention to audiovisual means to convey new educational material to their students in a memorable way. Multimedia is the aid to do so. It is an interdisciplinary technology oriented on applications, which exploits the multi-sensory nature of people, as long as we typically use multiple senses—sight and hearing among others—to communicate with each other. Among the benefits of the above-mentioned educational means is the ability to present various aspects of the English for Specific Purposes (ESP) course curriculum—which cannot be defined or comprehended easily through text and images provided in the students' course book—with the help of video clips, audio commentaries, animation, etc., and therefore making new ideas easily understandable [2]. Students' multi-sensory perception of the ESP study material through the aforementioned audiovisual aids promotes their in-depth understanding of topics, including concepts and technological processes, as well as better retention. Multimedia makes students more involved at the English for Specific Purposes lessons, and so, interested in learning some new information in the foreign language and storing it in the memory, in particular, as a result of a subject matter discussion in class.

To be able to prepare comprehensible and effective multimedia for the ESP lesson, it is vital to study multimedia bases, i.e. principles, which are [3]:

- 1) complementary perspectives: to ensure better subject memorization and understanding, various aspects of one matter should be presented in different media formats in a complimentary manner;
- 2) correspondence of themes: parts of the multimedia presented in the form of different media (video, pictures, graphs, and schemes) should match well, creating the comprehensible whole;
- 3) compatibility of a new material with students' existing knowledge: images, diagrams, signs, and symbols or other multimedia information should be comprehensible to students who will be assimilating the received information;
- 4) feasible load of provided information: preparing multimedia aids for an English for Specific Purposes lesson, especially audio- and video records, a teacher should make sure the authentic means of education is presented at the manageable rate and there will be no overload of students' information-processing capacity;
- 5) reinforce messages: an effort to demonstrate students the same concept using diverse modalities is beneficial to lasting memory cues formation.

Mayer (2004) [1], in his turn, mentions more multimedia principles that somewhat correlate with the ones presented above:

- 1) multimedia principle (words and pictures are more effective in teaching English for Specific Purposes at universities than words alone);
- 2) modality principle (students study better from graphics and narrations than from animation and on-screen text);
- 3) redundancy principle (study becomes more efficient when visuals and audio are presented together, not video, narration, and subtitles);
- 4) coherence principle (when unimportant words, pictures, and sounds are excluded from a multimedia means, students learn a new lexical material better);
- 5) principle of spatial contiguity (comparable words and images on multimedia means, e.g. on a video, should be near rather than far from each other);

- 6) principle of temporal contiguity (it is better for students' English language learning when interrelated words and pictures are presented concurrently rather than in succession);
- 7) segmenting principle (the foreign language study is better when tasks at a multimedia lesson are presented in student-paced segments, not as a nonstop unit);
- 8) signaling principle (when a definite structure of the work with the studied material is determined, the ESP lesson becomes more productive);
- 9) pre-training principle (it is easier for students to show good results at the lesson when they are familiar with the names and features of the main concepts presented on a multimedia aid, especially on an authentic video record in English);
- 10) personalization principle (students remember new vocabulary better when they come across these words and study them in the conversational style rather than formal one);
- 11) voice principle (when the oral speech on multimedia means is in a friendly—not a machine—voice, students' learning results are higher);
- 12) image principle (the presence of a speaker on the screen does not mean automatically better understanding and remembering of the heard information).

References:

1. Mayer, R. E., Fennell S., Farmer L., and Campbell J. (2004). A Personalization Effect in Multimedia Learning: Students Learn Better When Words are in Conversational Style Rather than Formal Style. *Journal of Educational Psychology*. 96(2), 389-395.
2. Parekh, R. (2013). *Principles of Multimedia*. 2nd ed. Tata McGraw Hill Education Private Limited.
3. Sutcliffe, A. (2003). *Multimedia and Virtual Reality*. New Jersey: Lawrence Erlbaum Associates.