

## FORMATS OF LEARNING CONTENT DEPENDING ON THE DELIVERY MODE

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**Abstract:** The pandemic has encouraged and accelerated the transformation processes of education. At the same time, it brought to the fore latent problems and questions. One such important issue is the quality of the teaching materials presented and published. The creation of content that is provided electronically has its specifics that determine the ease of perception. Our aspiration should be to provide the learning materials to the students in such a way that they do not have difficulty in understanding - reading, watching or listening. The purpose of this article is to present ways of layout of electronic learning content published as a text resource depending on how it is accessed by students - from a computer or a mobile device. The structuring of the text with headings and sub-headings (Headings), apart from giving greater clarity, is necessary for the automatic generation of content. The content can be made suitable for a printed document as well as a web document, keeping the references in the .pdf file. The left side of the sheet is used to draw attention to the main or more important ideas and concepts. According to the rule of thirds of visual design, the left side of the screen draws attention more strongly than the right side. Tables are used in printed documents to summarize data. Large tables are difficult to read on the screen. Graphs and charts are more suitable for presenting numerical data. The technology of hypertext in the electronic document gives us a unique opportunity to give freedom to the learner to navigate the content through hyperlinks (links). The variety of electronic devices today is large, so platforms must be able to present content equally well from desktop to smartphone. The massive use of mobile devices - smartphones and tablets has forced the use of their learning potential. Educational content must be optimized to fit the smaller screens of mobile devices and their touch-screen technology. With appropriate layout and text formatting, the documents we publish as learning resources can be made more readable, easier for students to navigate, navigate, and select reading items. This will make the documents clearer, more attractive, and the result is greater motivation to learn.

**Keywords:** Learning content, delivery, technologies

### 1. INTRODUCTION

Learning through technology provides a basis for the creation of innovative teaching methods, learning strategies, collaboration between participants, which are impossible in the traditional classroom learning process. Modern information and communication technologies facilitate the application of an andragogic, constructive and competence-based approach in education. The reasons for applying interactive methods in the education of students are related to the new educational paradigm - creation of a European space for higher education and high quality of the pedagogical process. E-learning is a solution to the problem of modernizing university education for the construction of an educational model adequate to the knowledge economy. The application of ICT creates conditions for students to fully reveal their intellectual potential and creative abilities. This largely depends on the professional skills and informational competence of the teacher (Торньова, 2019).

The pandemic has encouraged and accelerated the transformation processes of education. At the same time, it brought to the fore latent problems and questions. one such important issue is the quality of the teaching materials presented and published. We perceive information differently depending on the medium and the channel for its transmission. The creation of content that is provided electronically has its own specifics that determine the ease of perception. Our aim should be to provide the learning materials to the students in such a way that they do not have difficulty in understanding - reading, watching or listening. Unlike the paper medium (ordinary textbook), electronic learning content is multimedia - it can be offered in different formats - text, graphics, animation, clip, audio recording, video recording, web page, as well as to combine means of expression (media) in one resource. Learners can interact directly with the learning material, managing learning progress (Стоянова-Дойчева, et al., 2014). In no case should we seek to completely replace with electronic traditional print resources, which are extremely valuable and have timeless value.

The aim of this paper is to present ways of designing e-learning content, published as a text resource, depending on how it is delivered to students - as a text resource accessed from a computer or a mobile device.

### 2. MATERIALS AND METHODS

An review of literary sources was made: articles in refereed journals, educational sites, monographic works.

### 3. RESULTS AND DISCUSSION

According to Marian Wolff, "because we can literally and physiologically read in different ways, how we read and what we get out of reading will be influenced by both the content we read and the media we use" (цит. по (Jabr, April 2013)). The following are some guidelines for creating a text document designed to be read on a computer screen.

The structuring of the text with headings and sub-headings (Headings), apart from giving greater clarity, is necessary for the automatic generation of content. The content can be made suitable for a printed document as well as a web document, keeping the references in the .pdf file. The formatting of the automatic titles can be changed. Different styles or fonts for headings and text provide better orientation in the text.

The left side of the sheet is used to draw attention to the main or more important ideas and concepts. According to the rule of thirds of visual design, the left side of the screen draws attention more strongly than the right side. A suitable tool in Word for this purpose is the sidebar text box. Quote text boxes are suitable for short important information such as definitions or quotations.

We're used to reading from left to right, and that's how we read the fastest. In this sense, it is good to avoid centering and italics. Italics (italics) are permissible when giving an exact quotation or indicating the title of a periodical. We must keep in mind that reading from the screen puts a strain on the eyes, and therefore it is good to adhere as much as possible to the grammatical rules of the language.

The text is arranged sequentially on the pages, following the logic of exposition given in the table of contents. A table of contents is recommended even for short documents if they are logically divided into parts.

Tables are used in printed documents to summarize data. Large tables are difficult to read on the screen. Graphs and charts are more suitable for presenting numerical data. Of course, we can't always deprive the audience of tabular information, so it's good to keep tables short and clear. The automatic numbering of tables and figures in Word (Insert Caption from the References bar) is quite convenient, it makes it possible to save tracking numbering and to automatically generate an index of tables and figures, similar to the table of contents. Inserting a pointer (Cross-reference from the same toolbar) allows you to create an internal reference to a table, graph or other part of the document.

Good academic style and the ethics of research and teaching require that the sources of information for the development of teaching materials be cited. Different citation styles are used for this purpose. Each citation style requires the corresponding source to be detailed with its metadata. This is a necessary but time-consuming task. The Word editor makes it incredibly easy for authors with its ability to automatically describe and track in-text citations and automatically generate a list of sources used. It also allows plug-ins to the toolbar of external citation tools, such as Mendeley Cite. Each source is described once with the possibility of repeated use not only in the document in which it is initially inserted, but in all documents that are created on the corresponding installation of the Word editor. This is managed with the Manage Sources button, which gives access to two lists - Master List and Current List. The main one stores the sources described in different documents, but on this installation of the editor, and the current one contains the sources of the document that is currently being edited. Entries can be transferred from one to the other list.

Interactivity is a concept that is often mentioned when we talk about e-learning. It is the communication that conditions learning in an electronic environment. It can be between the participants in the process. In this sense, it is no different from communication. But there can be "communication" between the learner and the environment, as well as between the learner and the educational resource. In these cases, interactivity has no counterpart in traditional learning. The technology of hypertext in the electronic document gives us a unique opportunity to give freedom to the learner to navigate the content through hyperlinks (links). Through them, students can manage their learning and choose content themselves. In this way, from a simple text document we can create a resource for active learning.

The variety of electronic devices today is large, so platforms must be able to present content equally well from desktop to smartphone. The massive use of mobile devices - smartphones and tablets has forced the use of their learning potential. According to Greany (Greany, 2018) 56% of people learn wherever and whenever the need for new knowledge and skills arises. This is possible thanks to mobile devices. For the period 2002 – 2022, the number of scientific publications on the Web of Science about mobile learning in higher education has grown significantly (Kaisara & Bwalya, 2023), which shows the great interest in this technology. The academic staff demonstrated a generally positive attitude (Yagan, 2023). Saev (Съев, 2009) outlines the advantages of learning through mobile technologies in universities such as stimulating participation, increased self-esteem, creation of virtual communities, accessibility for people with disabilities, etc.

The probability that students will access the e-course through their mobile devices is very high and it is good to consider this already at the stage of designing the e-course (Penfold, 2018). Educational content must be optimized

to fit the smaller screens of mobile devices and their touch-screen technology. The materials are divided into short parts, it is good practice to indicate at the beginning how much reading time is required. Hill (Hill, 2019) provides practical guidance for a mobile learning strategy.

Good LCMSs do the "hard work" themselves, automatically optimizing content for different screen sizes and allowing the author to make additional, device-specific adjustments if desired (Cooke, 2018).

Almaiah et al. (Almaiah, et al., 2022) noted that students still have limited awareness of the new technology and universities should promote mobile learning applications among those students who lack adequate and essential technical information. He and Li (He & Li, 2023) found that students' motivation to learn mobile increases if the teacher designs interactive activities, encourages communication between all participants, helps them deal with problems that arise, gives timely and positive feedback.

Innovations come in faster than we adapt to them. We should also note some potential obstacles to the introduction of mobile technologies in university education. Very often there is a lack of infrastructure - wireless Internet on the territory of the university and campus, insufficient knowledge about the full functionality of the devices and the need for full-time staff for support and training, lack of trained teachers who know the methods and approaches of teaching through a mobile device. According to Almaiah et al. (Almaiah, et al., 2022) three are the main factors driving the adoption of mobile learning – awareness, IT infrastructure and top management support.

#### 4. CONCLUSION

With appropriate layout and text formatting, the documents we publish as learning resources can be made more readable, easier for students to navigate, navigate, and select reading items. This will make the documents clearer, more attractive, and the result is greater motivation to learn.

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