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Digital didactics: the role and competences of a teacher in online training

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Abstract

The main factor in the formation of digital didactics is the transition of human civilization to a new stage of development – the information society. The modern development of the electronic educational process contributes to the development and implementation of digital didactics in the educational process. But why is the format type (synchronous or asynchronous) given so much importance now? Because digital didactics is just beginning to develop. Methodologists are in search of the most effective teaching methods and formats for various tasks, different audiences, and ways in which new information is better understood and assimilated. Everything seems to be simple and clear. The article considers the issue of using online training in various formats of interaction between participants in the educational process: synchronous, asynchronous and blended. The authors try to find a balance between these formats, analyzing their pros and cons, paying attention to the role and competencies of a teacher. Considering the role of the teacher when working in an online format, the authors conclude that it is not limited only to teaching. The highlighted roles clearly show how intensive the process of preparing for classes is, and how the role of the teacher in a digital environment becomes more complicated.

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Keywords

Educational process, digital didactics, online training, synchronous training format, asynchronous training format, blended training format, skills, cluster of competencies.

Introduction

The modern development of the electronic educational process contributes to the development and implementation of digital didactics in the educational process [Agapova, 2019; Agapova, Aisner, 2018; Aisner, 2018]. To date, there are two main formats of online distance training: synchronous and asynchronous interaction. Synchronous training is the process of interaction between a teacher and a student, as well as students with each other (when group training) takes place “here and now”, for example, a live webinar with answers to questions from listeners. Asynchronous training is when such interaction is divided in time, for example, viewing a recording of the same webinar with the ability to send a question to the teacher and get an answer after some time.

Everything seems to be simple and clear. But why is the format type (synchronous or asynchronous) given so much importance now? Because digital didactics is just beginning to develop, and methodologists are constantly searching for the methods and formats of teaching which are the most effective for certain tasks, for different audiences, and in which format new information is understood and assimilated better [Aisner, Naumov, 2022; Aisner, Naumov, 2020; Drugova, 2021]. Both synchronous and asynchronous formats have their pros and cons, so it is important to find a balance between them.

Synchronous training / synchronous communication

There are different ways to implement synchronous training or synchronous communication (table 1) [Andreev, Voronov, 2017; Agapova, 2020]:

Table 1 - Ways to implement synchronous training

Method	Description
Summary and final analysis	This kind of the work involves the synchronous use of video instructions for a quick review at the beginning of the lesson and a quick analysis at the end.
Video conference mode	The ideal work option is when reading aloud, demonstrating a theatrical performance, where the teacher distributes roles to students in advance and a performance on a given topic begins at the appointed time.
Interactive applications	Synchronous use of online whiteboards and interactive applications that allow you to create and share interactive presentations with students on their own devices is another way to increase the effectiveness of teaching (for example, online whiteboards Whiteboard.Fi, Whiteboard.chat).
Dual-use technologies	The use of such applications as Classtime, Socrative, Plickers allows you to use the same technology to organize teaching when dividing a class into a full-time and a remote group.

Asynchronous training / Asynchronous communication

Asynchronous interactions between participants in educational activities or asynchronous communications are means of communication between a student and a teacher with a time delay. Asynchronous communications are recognized as a more convenient method of interaction in a virtual educational environment than synchronous ones for a number of reasons (table 2) [Aisner, Agapova, Bershadskay, 2016]:

Table 2 - Asynchronous training as a convenient method of interaction

Reasons	Explanation
independence from communication time	A student can send a task at any time of the day convenient for him, a teacher can check it at any time.
ease of use	Almost every Internet user has his own e-mail, and knows how to use e-mail services.
long-term storage of information	E-mail databases provide sufficient long-term storage of information.
accurate information about the time of sending messages	Databases store the exact time of sending and receiving messages, which can eliminate conflict situations between a teacher and a student.

Blended training format

If at the beginning e-training was, as a rule, asynchronous, and during the transition to distance training, on the contrary, the synchronous format of classes in Zoom and other services became predominant in many educational institutions, now more and more educational institutions use a blended format [Agapova, 2021].

When an online course includes both synchronous classes (for example, webinars, simultaneous group work, exams and project defenses live) and asynchronous (viewing recorded video lectures, correspondence with teachers, tests), then this format is called blended.

Skillset for teachers

Synchronous online training has become ordinary over the past four years. However, there is still no adequate digital didactics and the features of teaching in this format have not been fully formulated. From the point of view of modern didactics, the skillset can be distinguished, which includes certain roles and competencies of teachers in synchronous online training (table 3) [Irgaliev, 2020]:

Table 3 - Roles and competencies of teachers

Roles	Skills	Clusters of competencies
instructional role	the ability to project training, possession of a set of teaching tools and activities for students, the ability to apply these skills online	<ul style="list-style-type: none"> - organization of the educational process; - selection of the necessary digital resources and tools; - development and (re)creation of materials and tasks; - assessment, data collection and differentiation of training; - organization of feedback; - motivation of students
managerial role	ability for practical organization and administrative control of the online teaching process	<ul style="list-style-type: none"> - control over the conduct of the training course; - solving technical difficulties; - establishing rules for participation in the educational process and monitoring their compliance; - planning and organization of classes
technical role	ability to use technical means	<ul style="list-style-type: none"> - technical support for students; - selection of adequate digital tools; - demonstration of a positive attitude towards educational technologies; - demonstration of safe and healthy online behavior

Conclusions

Thus, having considered the role of a teacher, we have concluded that it is not limited only to teaching. The highlighted roles clearly show how time-consuming and complex the process of preparing for classes is and how much the role of the teacher in the digital environment becomes more complicated.

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Цифровая дидактика: роль и компетенции преподавателя в онлайн-обучении

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Аннотация

Основным фактором становления цифровой дидактики является переход человеческой цивилизации к новому этапу развития – информационному обществу. Современное развитие электронного образовательного процесса способствует развитию и внедрению цифровой дидактики в образовательный процесс. Методологи находятся в поиске наиболее эффективных методов и форматов обучения для тех или иных задач, разных аудиторий, способов, когда новая информация понимается и усваивается лучше. В статье рассматривается вопрос применения онлайн-обучения различных форматов взаимодействия участников образовательного процесса: синхронного, асинхронного и смешанного. Авторы пытаются найти баланс между этими форматами, анализируя их плюсы и минусы, обращая внимание на роль и компетенции преподавателя. Рассматривая роль педагога при работе в онлайн-формате, авторы приходят к выводу, что она не ограничивается только преподаванием. Выделенные роли наглядно показывают, насколько трудоемким является процесс подготовки к проведению занятий, и как усложняется роль педагога в цифровой среде.

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Ключевые слова

Образовательный процесс, цифровая дидактика, онлайн-обучение, синхронный формат обучения, асинхронный формат обучения, смешанный формат обучения, навыки, кластер компетенций.

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