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Abstract of the dissertation entitled:

Use of e-learning platforms in secondary schools. Present status and prospects for development

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Contemporary information technologies dominate every area of human activity and their dynamic development influences our behaviour. It is necessary for the school to be a source of innovation, to become a precursor of activities in the dissemination of modern methods and forms of education, meeting the expectations of students and teachers. Education faces enormous challenges in developing further skills that are essential to the functioning of a modern state. It is essential that students make conscious and constructive use of the resources of the media space, and that teachers are competent and able to support students in their educational processes. An appropriate "meeting place" in the virtual world should be an e-learning platform to support the teaching-learning process. We can see how important remote learning education is especially after 12 March 2020, when schools were closed due to the pandemic and education took place remotely until April 2021.

The dissertation analyses the status of the use of e-learning platforms in secondary schools and presents the prospects for development. Research showing the current condition of the IT infrastructure of schools was conducted in all secondary schools in Poland before their closure due to the pandemic. Questions may be asked: did the education system in Poland prepare properly for the situation that has arisen, were teachers also prepared for remote classes and did they prepare courses based on e-learning models? how is the IT infrastructure of schools developed in terms of access to the Internet, including wireless communication, with a view to being able to conduct classes in each classroom backed up

by the resources of the Web? who manages it in order to maintain efficiency, appropriate performance and data security?

The research design was to answer the following main problems arising from the objectives of the study, namely:

− What is the IT infrastructure of secondary schools?
− To what extent do teachers of the studied schools use e-learning platforms in the educational process?
− To what extent are the studied teachers prepared to use e-learning platforms in the educational process?
− What is the opinion of secondary school students on the use of e-learning platforms and courses in the learning process?

The work consists of seven chapters which attempt to cover the issue of using e-learning platforms in various aspects of school reality. They are detailed in the first chapter which shows the dynamics of the development of information and communication technologies as well as the convergence process. The possibilities of using digital technology in the teaching process were highlighted, as well as applications and programmes supporting education. The second chapter considers the media space and how it can be used in education. The current model of teaching based on the classroom-lecture system is replaced or supported by the environment in the media space. It has the right conditions for self-education and is a meeting place for pupils and teachers. The third chapter presents terminological arrangements and a description of e-learning systems and forms. Relevant aspects of the different modes of communication in remote education are shown. The practical use of e-learning is characterised in the fourth chapter, where the available educational platforms are reviewed, taking into account their functionalities, uses, effectiveness and their advantages as well as limitations. The chapter ends with a detailed description of the Moodle educational platform, which is the most popular tool supporting didactics at school. Chapter five presents the subject and objectives of the research, the research problems, the variables and indicators, the research methods and techniques, and the organisation and conduct of the research. The analysis and interpretation of the results obtained during the own research are included in the sixth chapter of the dissertation. Attention was drawn to the relevance of the use of e-learning platforms in the context of the ongoing COVID-19 pandemic and the validity of the results of research showing the state

of preparedness of schools to work in a virtual environment in secondary schools. Chapter seven describes a proposal for the implementation of an e-learning platform in a secondary school. The solutions shown take into account the school's IT infrastructure, the location of servers for educational platforms in order to optimise and ensure proper working efficiency. Important aspects when constructing a platform model are the costs related to IT equipment, software, but also the human resources needed to manage the school network. In addition, adequate competence of teachers in building courses and conducting remote classes based on the e-learning platform. The dissertation ends with the author's own conclusions, comments and observations. E-learning platforms should be integrated into the teaching process, support the work of the teacher, giving students the opportunity to be educated anywhere and anytime.