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The Perception of Slovak Students on Distance Online Learning in the Time of Coronavirus—A Preliminary Study

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Abstract: Teaching and learning at educational institutions in Slovakia has been based on traditional education, consisting of face-to-face classes until it was disrupted by the spread of the Coronavirus disease. A sudden lockdown caused massive changes, which presented challenges not only for teachers, but also for students who were forced to adapt their learning in a very short time, without any previous preparation. Since various educational institutions were forced to remain closed, they had no option but to shift from a traditional educational approach to distance learning. This form of education requires a form of online learning. The main purpose of this study was to explore what technical equipment students had at their disposal, to understand the students' perception of distance learning, and to ensure better learning conditions in case of future lockdowns. In order to investigate student readiness for distance learning, a questionnaire survey was conducted at the Secondary Vocational School of Tourism and Gastronomy in Nitra, Slovakia. The findings of this study revealed that the majority of students from the Secondary Vocational School of Gastronomy and Tourism are ready for distance online learning. The results also indicate that a great percentage of students have Internet access and are the owners of technological devices that can be used for educational purposes. Furthermore, students are able to work individually on their own and do not require any help from other people while working on assignments. Although they prefer different teaching methods, the synchronous online courses are their priority because it enables them to have direct contact with their teachers and peers. Overall, this research shows that distance online learning is possible provided that both teachers and students are familiarised with this new learning environment and are ready to cooperate.

Keywords: distance learning; online learning; coronavirus disease

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1. Introduction

The interruption of traditional, face-to-face study due to the spread of Coronavirus, required the use of a distant form of education. Suddenly, students were separated from their teachers and peers and began to start learning remotely. There was no other choice than solitary study at home. Therefore, learning had become more individualised and varied, more dependent on speed and timeline according to each individual student and their attitude and willingness to try distance learning.

Keegan [1], who developed a definition of distance learning, defines it is a form of education whose main elements are the separation of teachers and learners, the influence of educational institutions, the two-way communication between teachers and learners, the possibility of occasional meetings, the industrial model of providing education, and the use of technical media. Keegan [2] claimed that the evolution of education at a distance can be characterised as a move from distance learning to online learning. It would not be possible in a society that has not yet achieved an adequate level of industrialisation. Fortunately, technologies are becoming increasingly ubiquitous and can be creatively used

in different areas, including education [3]. The development of new technologies opened the way to the net and web, which made it possible to teach face-to-face at a distance and to restore eye-to-eye contact online. The wide distribution of computers and communication technologies has made the learning process easier, changed the nature of distance learning, and ensured a smooth transition into online distance learning as pictures, audio, video, and virtual realities can be used in order to facilitate the process of education. In that sense, distance learning is a subset of online learning [2,3].

Before the onset of Coronavirus, online learning has been only used as a supplement for teachers in their courses. In other words, it was used in order to create a blended learning environment in the classroom. Things have changed and online learning has become extremely important, regarding the fact that distance learning relies on its educational tools [4].

New circumstances have made educational institutions recognise the importance of online learning since it appears to be an effective tool for ensuring students' education in the time of Coronavirus crisis. This form of education brings many advantages as it is considered to be easily accessible and relatively cheaper, in comparison with the institution-based learning. Another interesting aspect of online learning is its flexibility since learners can schedule or plan their learning. In this term, online learning can be defined as an asynchronous learning experience with the Internet access [5]. The asynchronous instruction means that teachers and learners are not demanded to have synchronous sessions because students have access to the course content through the Internet at any time. In this case, communication occurs mainly through email and online forums and is typically moderated by teachers. The disadvantage of such a learning environment is that response and immediate feedback are not possible [6]. On the other hand, the synchronous learning environment offers live lectures, real-time interactions between teachers and students, and a possibility of instant feedback. In addition, the synchronous online learning can provide a lot of opportunities for social interaction, so vital in times of social isolation [5].

We assume that a combination of synchronous and asynchronous online learning is important in order to create a balanced learning environment for students. In a time of a crisis, when learners face new challenges, it is essential to create conditions providing personalised learning, an individualised work pace, and the possibility of feedback on students' learning at the same time. After the spread of the Coronavirus, many institutions all over the world, including Slovakia, realised a necessity of such a blended learning model providing quality education. One of the institutions that switched from offline learning to online learning, and decided to use both a synchronous and asynchronous online learning environment, was the Secondary Vocational School of Tourism and Gastronomy in Nitra, Slovakia. Since the situation was new for both students and teachers, and many questions related to distance online education occurred, the school management decided to conduct a questionnaire survey in order to examine students' perception of online distance learning, and on this basis, ensure quality education in case of further lockdowns. Thus, the main purpose of this study was to explore what technical equipment students had at their disposal, to understand students' perception of distance learning, and to ensure better learning conditions in case of future lockdowns.

2. Materials and Methods

In order to investigate student readiness for distance learning and their perception of such an experience, which was the main purpose of this study, a questionnaire, as the main research method, was conducted at the Secondary Vocational School of Tourism and Gastronomy in Nitra, Slovakia. A total of 86 students, both males and females, of the tourism study program were asked to fill in the questionnaire. However, only 72 participants have completed it. The sample size therefore represents 83.72% of the total number of students from the mentioned study program. The age of students ranged between 15 and 19 years. A convenience sample was used for the purpose of the current study since respondents happened to be available at the time of the research procedure. As one of

the authors of the current paper teaches at the secondary vocational school where the questionnaire was revealed, the authors chose a research sample consisting of the students from this institution. Only students attending the school on the day when the questionnaire was distributed answered the questions. The questionnaire was developed by the school management in order to understand the learning needs of their students. It contained 15 questions describing 6 constructs/variables, such as technology equipment, students' technological skills, learning environment, difficulty level of learning, methods of teaching, and objective evaluation (see Table 1 below). Student responses were collected at the beginning of the first semester of the academic year 2020/2021. Before students were given the questionnaire, they had been presented with the purpose of the study. The survey was anonymous, it was not obligatory, and students were informed they were allowed to stop completing the questionnaire at any time they wished.

Table 1. Summary of measurement scales.

Constructs/Variables	Measured Items
Technology equipment	1. Do you have the Internet access at home?
	2. Do you have a device which you can use in order to complete electronically assigned tasks?
	3. Can you recharge your device regularly?
	4. Do you have a telephone connection?
Students' technological skills	1. Do you have necessary skills to work with new technology?
	2. Are you able to complete assignments without direct help of an adult person?
Learning environment	1. Can you focus on your studies while being at home?
	2. Do you have enough time to complete the tasks?
Difficulty level of learning	1. To what extent and complexity do teachers give you a new curriculum for self-study?
	2. Are the tests adapted to the appropriate level of your knowledge?
Teaching methods	1. In what form do teachers assign exercises to practice the curriculum?
	2. Does teaching through the ZOOM application help you understand the subject matter?
	3. What activities help you understand the new curriculum?
	4. Which method of learning is the most suitable for you in order to complete the assignments?
Objective evaluation	1. Is the evaluation of your acquired knowledge objective?

Despite the fact that modern technologies have become an integral part of students' lives [7], the authors of this study find it essential to understand whether students are ready to use technologies that are also in the process of distance online learning. The authors believe that students' perception of the online distance learning can help provide a better educational environment in case of future lockdowns or other unexpectable situations. In order to meet the objective of this study, six variables mentioned above were explored.

2.1. Technology Equipment

The distance online education system depends on a number of factors that affect its success or failure. These include the influence of students' technology equipment and information delivery system which must be accessible to all participants in distance online learning in order to provide continual updated courses and to keep the subject matter current and relevant [8]. It is obvious that without supplied course materials and learner support from teachers, students would not be able to work on their own and enhance

their learning. Thus, the authors aimed to examine whether students had the necessary technology equipment at their disposal.

2.2. Students' Technological Skills

When participating in distance education courses, it is vital to consider students' technical skills which can help them achieve their learning goals. Students in distance online education are supposed to have at least basic knowledge of computer and Internet skills allowing them to work on their own. Otherwise, they could possibly meet barriers that lead to academic problems [9]. Hence, the question is whether students were able to work on their own.

2.3. Learning Environment

Learning environment is one of the most important factors that affect student learning. An ideal learning environment is a space where students are able to work, learn from their own mistakes, and achieve their academic goals. A positive learning environment helps improve student attention, reduce anxiety, and enhance productivity. In this space, the process of learning becomes something that students easily adapt to and look forward to. To achieve such an environment, students need to be nurtured with care and support. In a positive and nurturing environment, students show their authentic curious self. When educators foster a positive learning culture, learners are more likely to acquire higher motivation that leads to wonderful learning outcomes [10]. Based on this, the authors are interested whether students worked under favourable conditions.

2.4. Difficulty Level of Learning

When planning learning, it is important to understand the level at which learning occurs as this will underpin appropriate approaches to teaching and assessing. It is essential to provide information that is right for both student learning expectations and teacher expectations. Regarding this, according to Bloom's taxonomy, when designing learning, teachers should consider students' cognitive, affective, and psychomotor skills. Those include students' knowledge and understanding, feelings, and attitudes, as well as their physical skills [11]. Therefore, it is important to know whether students were assigned the tasks of appropriate level.

2.5. Teaching Methods

Teaching methods refer to the way of information transition to learners. A method describes the instructional process, that is, not only how information is transferred from the teacher to students, but also how students use it, interact with it, and receive guidance and feedback. There are many variables that affect the choice of methods, including the level of learning, time available, or facilities. Using the right methods is important because the quality of student learning depends on the effectiveness of the approach used [12]. Thus, the authors aimed to explore whether appropriate methods of teaching were used.

2.6. Objective Evaluation

Evaluation plays an enormous role in the process of education since it is considered a systematic process of data collection and further analysis that is done in order to understand student learning outcomes. Understanding of students' development can help teachers improve the learning process [13]. Regarding this, we consider an individual work of students important when distance online learning is implemented. We considered it important to find out whether each student worked individually on their own and to evaluate student outcomes as an objective.

3. Results and Discussion

A main objective of the current study is to understand students' readiness for the use of modern technologies in the process of distance online learning. Student responses in the questionnaire revealed a diverse amount of information and are provided below.

Regarding technology equipment, 100% of participants indicated they had the Internet access. In fact, 82% of students are the owners of the devices which can be used in order to complete electronically assigned tasks, 14% had to share devices with other members of their household, and only 4% stated they had no device suitable for online distance learning. The findings showed that 96% of the participants had had the necessary technology at their disposal. Therefore, they could use them in the process of education. To get an overall picture of the technology use, according to the survey conducted by the Statistical Office of the Slovak Republic [14], only 73.5% of the respondents have mobile devices, 18.2% have a laptop, 11.5% have a tablet, and 3% are the owners of different devices. However, the data showed that technological devices were widespread. On the other hand, only 81% of the households in the Slovak Republic have access to the Internet, which can cause the problems with course materials delivery in the time of distance online learning.

In addition, 72% of students stated they had the skills necessary for their work with new technologies, but 96% of them claimed they had been able to work on their own, without any direct help of adults. Although teachers and students are increasingly using ICT, there is still a large group of those who do not have sufficient skills. Most of them gradually feel the need to develop their competences in this area as it is important for all who want to improve their use of ICT and to increase information literacy [15].

The results also revealed that 98% of students had claimed they could work under conditions where they had the opportunity to fully focus on their studies. On a slightly controversial point is that 24% of the participants stated they had not had enough time to complete the tasks given by their teachers, which could possibly have something to do with the teachers' high expectations. On the contrary, according to the study conducted by Wilson-Fleming and Wilson-Younger [16], it is essential for teachers to have high expectations in order to ensure an atmosphere of success. Teachers also need to explain the importance of expectations to students and their parents, who should be allowed and encouraged to be involved in the process of education. The authors of the study claim that parental involvement in their child's education is one of the factors that play a crucial role in having positive learning environment and successful learning outcomes.

Jacobson [17] maintains that only a portion of students in schools are regularly given grade appropriate assignments to be completed. She believes that educators need to improve equity in school and make sure they are always listening to their students' needs because it was found that almost three-fourths of the time, students are doing the work given by teachers, but less than a fifth of the assignments meet learning standards. In the current study, 73% of the respondents found the difficulty level of learning appropriate and 25% found it inappropriate in the case of the tasks assigned by the Slovak language teacher. From this point of view, we can assume they did not have any problems with the difficulty level of the tasks assigned by the teachers of different subjects.

Furthermore, the research conducted by Marušić and Sliško [18] revealed the importance of the use of different methods, which increase students' level of thinking. They claimed it was important to challenge students and thus encourage them to a higher level of learning, reaching better academic outcomes. At the Secondary Vocational School of Gastronomy and Tourism, students were given homework in many forms, including worksheets and online exercises, as well as individual projects. In the time of the Coronavirus crisis, many teachers decided to use the combination of synchronous and asynchronous online teaching and learning. That is to say that 97% of students stated they had understood a new curriculum thanks to ZOOM classes and direct online contact with their teachers. Students also considered the EduPage, an educational online platform, the most suitable method in order to complete assignments. The remaining students found email the most

suitable way of communication and learning. Based on this information, appropriate and suitable teaching methods were used in the process of distance online learning.

Regarding evaluation, before a fair assessment process, it is essential to clearly identify what we are looking for [19]. In this study, the main criteria for objective evaluation of students' outcomes was their individual work. Therefore, it can be said that an evaluation of students, while using distance online learning, was mostly objective since 75% of them stated they had worked individually on their own and the rest of the students worked mostly on their own, and only in some cases did they require help from their peers or parents.

The findings of this study revealed that the majority of the students from the Secondary Vocational School of Gastronomy and Tourism are ready for distance online learning. Furthermore, the results indicate that a great percentage of students have Internet access and are the owners of technological devices that can be used for educational purposes. A great number of students claim that they are able to work on their own. In fact, they do not require any help while working on assignments. Although teachers use different teaching methods, it can be said that students prefer synchronous online courses because they enable them to have direct contact with their teachers and peers. This helps them understand the new curriculum better. It also testifies their readiness for the use of the Internet and technological devices in the process of education.

Overall, this research shows that distance online learning is possible provided that both teachers and students are familiarised with this new learning environment and are ready to cooperate.

4. Conclusions

The Coronavirus disease, which has spread all over the world, has affected many areas of life, including education. According to a study conducted by Hebebci, Bertiz, and Alan [20], more than 91% of the world's student population have been affected since educational institutions were temporarily closed. In order to continue to provide education, institutions were forced to switch from traditional, face-to-face learning to distance online learning.

The results of this study showed that today's students are ready to use technological devices not only in their common life, but also in the process of education. However, in order to provide quality education, Fidalgo, Thormann, Kulyk, and Lencastre suggest [6] assessing readiness to take distance learning through a survey, provide pre-distance learning courses, train instructors to develop distance online courses that help overcome obstacles, and offer courses in a blended learning format to familiarise students with online learning. Considering that distance education has an important place in education, we agree. Furthermore, students in our study stated they had relevant skills necessary for online learning. Only a small number of them did not feel confident in using technology.

This study provides some background information that may help educational institutions to offer distance online learning. However, we are aware of its limitations, especially the small sample size. Therefore, additional research about students' preferences related to distance online learning should be conducted and extended to the whole country, possibly to other European countries.

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