Digital Technologies as an Integral Part of the Process of Language Teaching and Learning

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Abstract

The present article discusses digital technologies as an integral part of the process of language teaching and learning from the students' perspective. In order to achieve the aim of the study we conducted an online survey. The prevailing part of the survey takers viewed digital technologies as an integral part of the language learning process (58,6%). Very few of the respondents considered digital technologies as a dispensable part of the process of language acquisition (9%). In the context of the "new normal", requiring constant changes in all areas of life, despite the challenges we all faced, e-learning was an opportunity in disguise rather than a daunting task. Firstly, it was the only way to fulfill the educational needs of language learners at tertiary level. Furthermore, it facilitated the development of soft skills such as responsibility, decisiveness, and self-motivation, the main drivers of students' performance and success.

Keywords: digital technologies, students, language acquisition, e-learning, education

Background

Digitalization has affected all fields of life including education and has become a distinctive feature of the contemporary reality. The rapid development of computer technologies results into their implementation into the learning environment. The educational setting of language acquisition and teaching has also changed over the years. In the past, the only tools of the language teacher were the chalk, the blackboard, the textbook and learners' curiosity. Nowadays, both teachers and learners take advantage of interactive whiteboards, E-textbooks in a completely different learning environment where the roles of the teacher and the learner have changed.

Self-education and self-development are achieved through information technologies, which are the optimal means for attracting learners' interest and have become an integral part of the educational process. Moreover, to enhance learner autonomy, language teachers can create collaborative atmosphere, promote a life-long learning habit, and encourage peer- or self- assessment. The educational process itself has a multifaceted nature, which is in line with the diversity of language teachers and learners.

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Language in India www.languageinindia.com **ISSN 1930-2940 22:11 November 2022**
Elitsa Stoichkova, M.A.
Digital Technologies as an Integral Part of the Process of Language Teaching and Learning 47

Marc Prensky coined the term "digital natives" to highlight the difference between the computer generation and all the previous generations. "Digital natives are comfortable with technology and computers at an early age and consider technology to be an integral and necessary part of their lives" [9]. "On the contrary, a digital immigrant is a person who grew up before the internet and other digital computing devices were ubiquitous - and so have had to adapt and learn these technologies" [9].

Today's tech-savvy students process and obtain information in a completely different way. The new generation requires significant changes in the learning environment and new teaching methods and approaches. Another term that has been put into use is "adaptive learning". It was introduced on the educational scene in the 1950s by the behaviorist Skinner. "The basic premise of adaptive learning is using technology to improve education and training by providing individualized learning programs to students based on data that is gathered both before and throughout the learning process. The best adaptive learning platforms use some form of data mining to put together learning content for students that is optimized for their learning needs" [10]. Adaptive learning is above all an educational approach with its components (Fig. 1).

Acceptance

Positive attitude

Personalization

Adaptive learning process

Constructive feedback

Motivation

Achievement and advancement

Fig. 1. Adaptive learning process components

The adaptive learning process is based on a wide range of factors. Motivation, which is vital in language learning, is also part of it. A highly motivated individual will aspire to learn and succeed in language acquisition. According to Gardner (1985) [5], "an integratively oriented learner would likely have a stronger desire to learn the language, have more positive attitudes towards the learning situation, and be more likely to expend more effort in learning the language". Delving deep down

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Language in India www.languageinindia.com **ISSN 1930-2940** 22:11 November 2022
Elitsa Stoichkova, M.A.
Digital Technologies as an Integral Part of the Process of Language Teaching and Learning 48

into the depths of motivation raises the topic of the most difficult task of language teachers – to motivate and inspire their students. It is a whole process, which should be sustained by positive emotions and long-term support. Demotivation is easier and effortless – sometimes a single look can make students' enthusiasm and interest fade away.

Advancement and achievement are significant motivational factors in language learning and they are directly proportional. Improved learning outcomes and the sense of achievement increase learners' self-confidence and self-esteem. Acquiring autonomy and independent learning skills is the highest level of learners' achievement. Kesten (1987) points out that "Independent Learning is defined as that learning in which the learner, in conjunction with relevant others, can make the decisions necessary to meet the learners' own learning needs. These decisions ought to be made within the bounds of social acceptability and by self-directed, self-motivated, willing learners…." [6]. Education or language learning, in particular, is a twofold process in this context, which comprises responsive teachers and receptive learners. The language teacher gives impetus to the students and serves as the driving force of success. Effort should be put into mastering motivational techniques in order to transform from an educator into a motivator.

The degree of acceptance of online instruction is closely related to learners' fluency in the digital world. Digital natives are more likely to accept and utilize technologies in the realm of language learning than digital immigrants because they live immersed in technology-rich environments. Technological literacy is a prerequisite for overcoming the restrictions of online courses.

The efficiency of language classes is dictated by positive attitude. Initially, it provides the primary reason to start learning a language and later, the driving force that sustains the learning process and turns it into a life-long habit. Adopting a positive attitude helps to relieve tension and creates a productive and stress-free atmosphere in the EL classroom.

The web of adaptive learning is weaved by constructive feedback – the core of successful teaching. The balance between criticism and encouragement is essential for teacher's performance. The purpose of feedback is to identify the ways in which learners can advance and to encourage self-criticism. Another aspect of constructive feedback is shifting from particular to general principles applicable to a cohort of language learners.

Personalized learning is at the heart of educational programmes around the world and there appears to be general agreement that "how to personalize learning and how to differentiate instruction for diverse classrooms are two of the great educational challenges of the 21st century". (Trilling & Fadel 2009, p. 33) [8]. Personalization means different approaches to different people, including individualized learning objectives, instructional methods, additional resources and pace. Language teachers should put their efforts in learner-centered teaching tailored to the needs of the individual. This would be impossible without their secret weapon – digital technology.

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Language in India www.languageinindia.com **ISSN 1930-2940 22:11 November 2022**
Elitsa Stoichkova, M.A.
Digital Technologies as an Integral Part of the Process of Language Teaching and Learning 49

Aim

The present study aimed to assess the students' attitudes towards the application of digital technologies in language learning.

Materials and methods

The study is based on a questionnaire, which consisted of 9 open-ended and closed-ended questions. The different questions reflected the students' attitudes to digital technologies and their implementation in the process of language learning. All the participants (n=78) were first- and second-year student nurses and student midwives. The survey was created as a Google Forms document and distributed to students via email between January-March 2021. Data were collected and processed with Microsoft® Excel (2013). Evaluation and analysis of data were backed by quantitative methods of research that allowed for graphic representation of the information gathered.

Results and discussion

The survey inquired into the types of digital devices used by the students in language learning (Fig. 2).
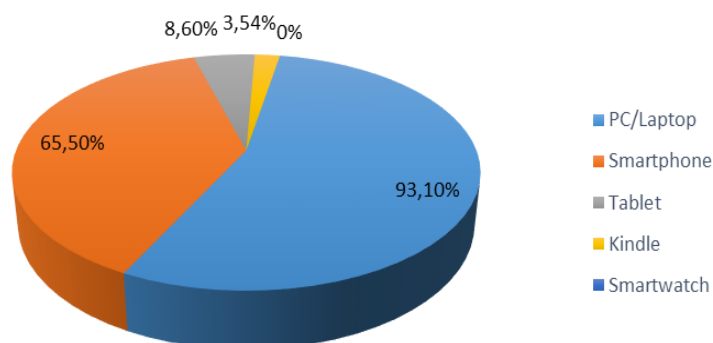

Fig. 2. *Types of digital devices used in language learning* (*multiple response item*)

An absolute majority of survey takers used either a personal computer/laptop (93,1%) or a smartphone (65,5%) in their language studies. Living in the digital age has resulted in the use of a multitude of smart devices. The arrival of the smartphone some time ago revolutionized every aspect of our lives providing easy and ubiquitous access to education, information, and entertainment. At the same time, digital literacy is a prerequisite for both language students and teachers to avoid distracting from the main point, i.e., language acquisition.

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Language in India www.languageinindia.com **ISSN 1930-2940 22:11 November 2022**
Elitsa Stoichkova, M.A.
Digital Technologies as an Integral Part of the Process of Language Teaching and Learning 50

The respondents were asked to identify the purposes for which they used digital technology in language learning (Fig.3)
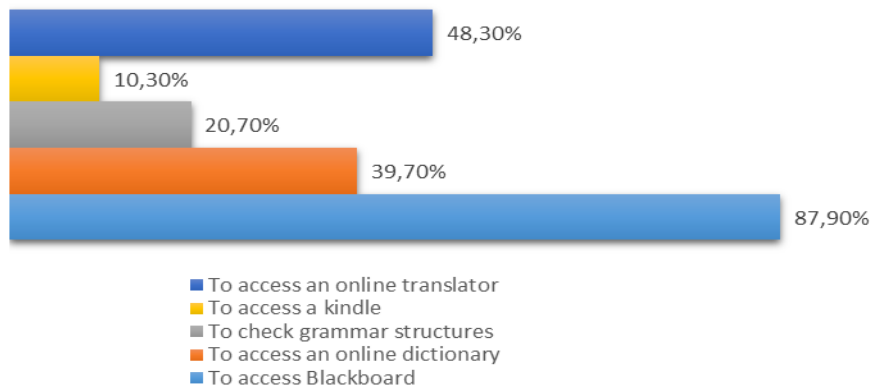

Fig. 3. *Practical application of digital technology in language learning*
(multiple response item)

The findings suggest, not surprisingly, that students viewed digital technology as a way to access *Blackboard* (87,9%) and an online translator (48,3%), followed by access to an online dictionary (39,7%). Our institution has adopted *Blackboard Learn+* as its virtual learning environment. The benefits of the platform include a multitude of options for both educators and students with its tools for synchronous and asynchronous e-learning. The lecturers are provided with ample opportunities to deliver live lectures and to interact with students using assignments or to discuss the material through discussions, to test students' knowledge safely, especially in the context of a pandemic. The shift from onsite to online education through *Blackboard* was the only variant to ensure an effective teaching-learning process.

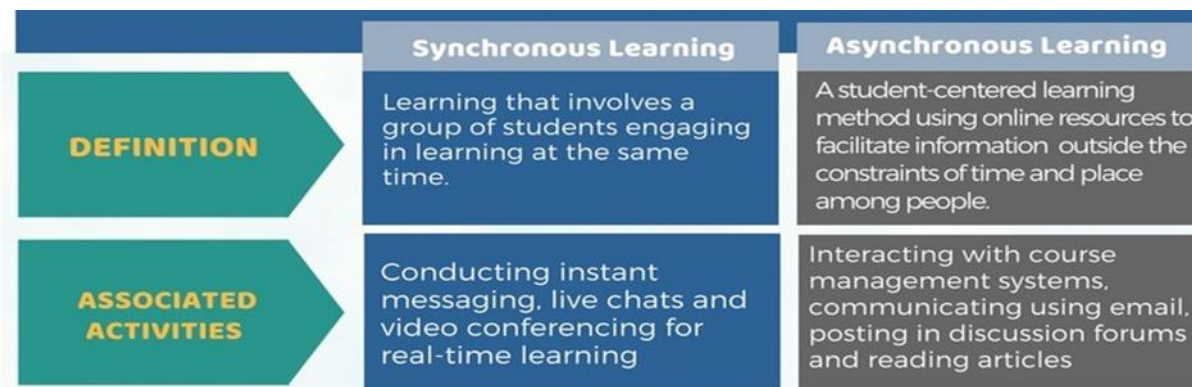Asynchronous and synchronous learning can be defined this way:

Fig. 4. *Source: https://quizlet.com/507796639/synchronous-and-asynchronous-learning-diagram/*

Another key finding is that reliable online translating tools are the best way for students to decode the message of a text. Not surprisingly, they benefit from this timesaving and easily accessible

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Language in India www.languageinindia.com **ISSN 1930-2940 22:11 November 2022**
Elitsa Stoichkova, M.A.
Digital Technologies as an Integral Part of the Process of Language Teaching and Learning 51

online option for easier learning and expanding their language knowledge. Although machine translation is faster, the results are doubtful and unreliable from the teacher's perspective.

The next finding in a row demonstrates the students' opinion on the use of online dictionaries. The habit of looking up a new word in the dictionary guarantees that you will learn its precise meaning and collocations. This analysis supports the idea that a reliable dictionary is the primary method to enrich your vocabulary, which in turn contributes to improving the four basic language skills.

The topic of the students' satisfaction with the language training in the digital environment triggered unambiguous answers (Fig. 5).
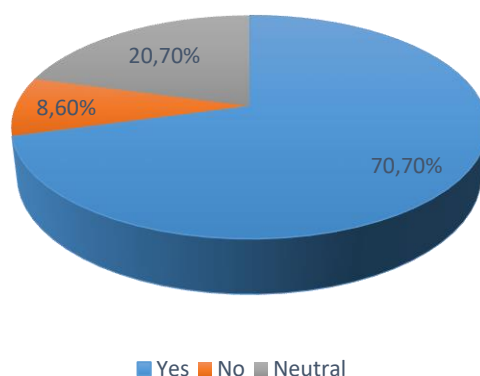

Fig. 5. Students' satisfaction with the language training in the digital environment

A large proportion of the respondents demonstrated high levels of satisfaction with the online language course (70,7%). A few factors affect the level of satisfaction with the language training in the new domain. This analysis supports the theory of Barbera et al. (2013) that "the content of the course and the level of its difficulty along with teachers' support and performance are the most essential aspects of online courses that affect students' satisfaction" [1]. In line with the above mentioned, students' academic performance also has an impact on their level of satisfaction. The fact that student nurses and midwives study English for Specific Purposes determines their positive attitude to the course and their motivation. Intrinsically motivated students enhance their chances for better results, which in turn affects their level of motivation.

We attempted to identify the main difference between onsite and online learning from the students' perspective (Fig. 6).
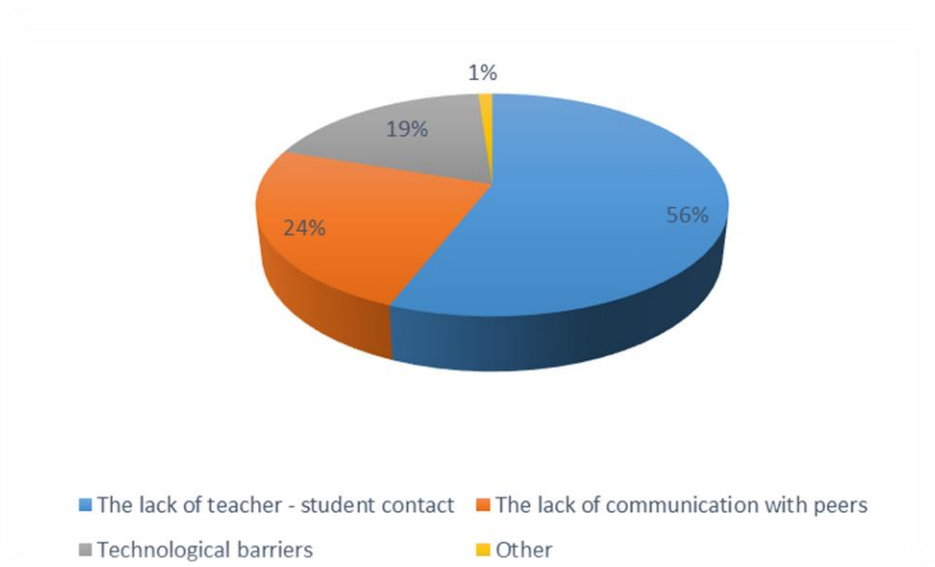
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Language in India www.languageinindia.com **ISSN 1930-2940 22:11 November 2022**
Elitsa Stoichkova, M.A.
Digital Technologies as an Integral Part of the Process of Language Teaching and Learning 52

Fig. 6. *Difference between onsite and online learning*

In the closed-ended format of the question, more than half of the survey takers were unanimous that the main difference between onsite and distance learning is the lack of teacher-student contact (56%), followed by the lack of communication with peers (24%). In the open-ended format, only two respondents expressed completely polarized opinions. One of the respondents stated that the lecturer's teaching methods made the difference between onsite and online learning insignificant (0,5%). The second opinion supported the idea that the course learning objectives could be achieved successfully through digital technologies without the physical presence of a teacher (0,5%).

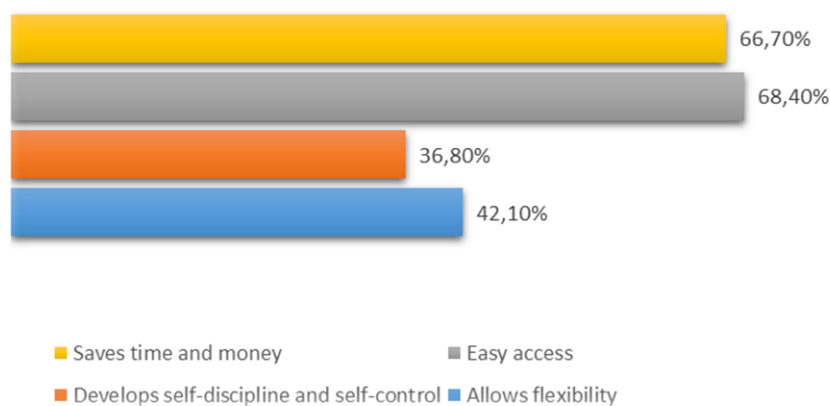The survey also inquired into the advantages of online learning (Fig. 7).

Fig. 7. *Advantages of online learning (multiple response item)*

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Language in India www.languageinindia.com **ISSN 1930-2940 22:11 November 2022**
Elitsa Stoichkova, M.A.
Digital Technologies as an Integral Part of the Process of Language Teaching and Learning 53

The educational experience of the respondents clearly outlines the two main advantages of online learning. The first one is that it is easily accessible (68,4%) and the second is that it saves time and money (66,7%). According to students, the easy access to content and instruction from any place at any time was the main advantage. Time is an invaluable resource, which is also highly appreciated by the survey takers. Piotrowski and Vodanovich (2000) contend that online instruction significantly impacts on teacher education programmes by providing students with access to education without the inconvenience of traveling to campus for all classes. Beard and Harper (2004) conclude that despite students' concerns about the lack of interaction with faculty and fellow students, they were quite supportive of online instruction. Extending this discussion Braun (2008) concludes that flexibility is a key factor influencing students' preferences for online courses" [7,2,3].

The subject of the previous question inevitably raised the issue of the disadvantages of online learning (Fig. 8).
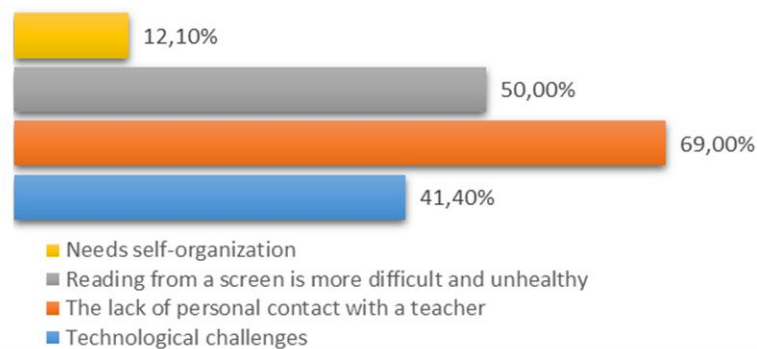

Fig. 8. Disadvantages of online learning (multiple response item)

According to the respondents, the main drawback of online learning was the lack of personal contact with the teacher (69%). Half of the students considered reading from a screen unhealthy and more difficult (50%), while very few of the survey takers considered the need for self-organization (12,1%) a disadvantage. These findings support the idea of Conrad, Dennis and Pedro, Joan (2009) that "Traditionally instructors thrive on face-to-face communication which allows more opportunities to gauge student reactions, obtain feedback, and modify pedagogy." [4]

From the teacher's point of view, developing communication skills and teamwork are not suitable and more difficult for this kind of training. Developing receptive skills is easier than developing productive skills in the digital environment. In addition, the teacher needs to be ingenious and to adopt new methodological strategies tailored to the students' needs in the new language setting. It might also be challenging to conduct a large deal of the practical Midwifery and Nursing training online. Yet, in a state of emergency, online learning was the only option for the future nurses and midwives.

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Language in India www.languageinindia.com **ISSN 1930-2940 22:11 November 2022**
Elitsa Stoichkova, M.A.
Digital Technologies as an Integral Part of the Process of Language Teaching and Learning 54

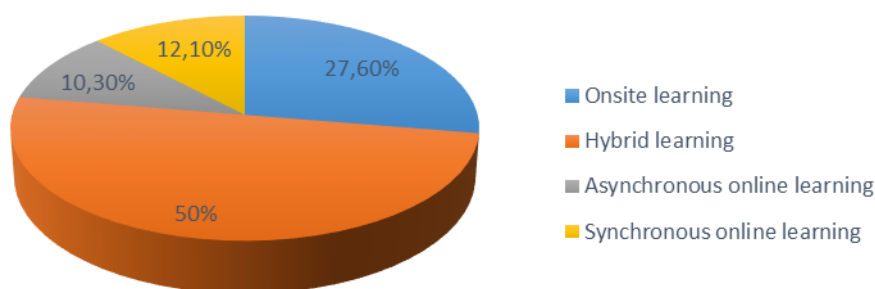We tried to identify the most preferable type of learning for the survey takers (Fig. 9).

Fig. 9. *The most preferable type of learning according to students*

The findings reflect the students' attitude to the four course delivery modalities. Half of the survey takers were in favour of hybrid learning (50%). Hybrid learning is a combination of simultaneously taught in-person lessons and online activities. This educational model is beneficial for both educators and learners in achieving their ultimate goals. In the context of a global pandemic, this option allows for a flexible and safe teaching, learning and assessment process. Web-based testing is a safe and quick way to evaluate the students' knowledge as long as a lockdown browser is applied. Respondus LockDown Browser^{TM} was utilized at our institution to avoid cheating and increase the security during the exam session.

We attempted to evaluate the efficiency of the online English language course using a 5-point Likert scale (Fig.10).
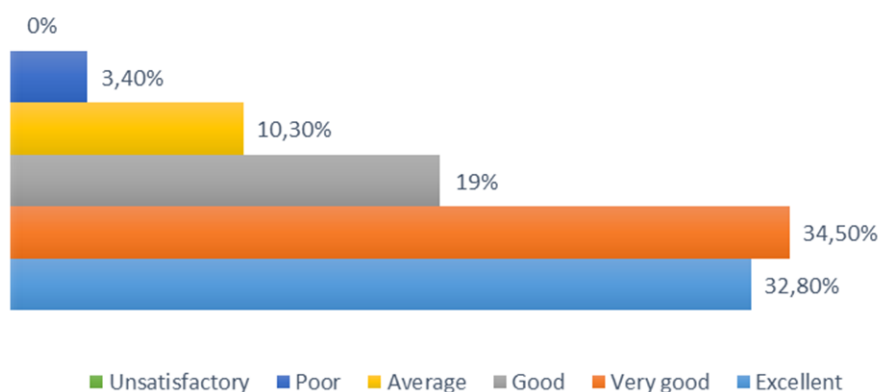

Fig. 10. *Efficiency of the online language course*

A notable number of survey takers gave either a very good (34,5%) or an excellent grade (32,8%) of the online language course efficiency. The online teaching mode is marked by a variety of distinctive features such as professional experience, excellent presentation skills, positive attitude to students, and patience. All these peculiarities were highly rated by the students.

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Language in India www.languageinindia.com **ISSN 1930-2940 22:11 November 2022**
Elitsa Stoichkova, M.A.
Digital Technologies as an Integral Part of the Process of Language Teaching and Learning 55

We investigated the students' opinion on the implementation of digital technologies in the process of foreign language learning (Fig. 11).
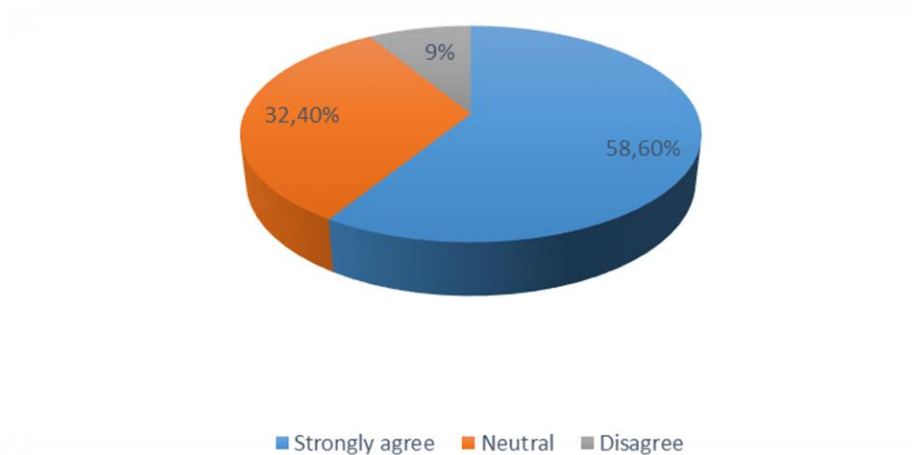

Fig. 11. Students' opinion on digital technology implementation
in the process of language learning

The prevailing part of the survey takers viewed digital technologies as an integral part of the language learning process (58,6%). Very few of the respondents considered digital technologies as a dispensable part of the process of language acquisition (9%).

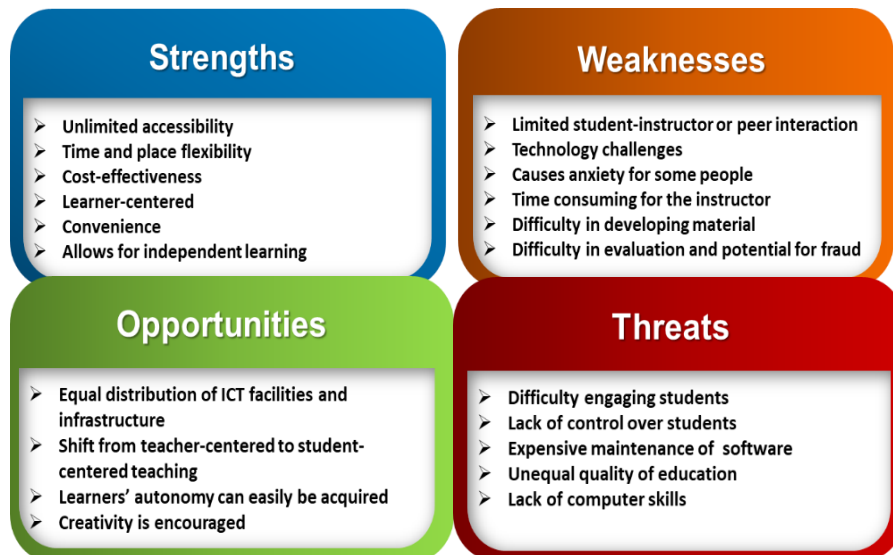We attempted to analyze e-learning through a SWOT Matrix.

Fig. 12. SWOT analysis of E-learning

Language teachers are in a constant search for independent, learner-centered learning, which was effortlessly achieved through digital technology. Educator's creativity was encouraged, which resulted in developing new methodologies and piloting new projects. The greatest threat is due to the

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Language in India www.languageinindia.com **ISSN 1930-2940 22:11 November 2022**
Elitsa Stoichkova, M.A.
Digital Technologies as an Integral Part of the Process of Language Teaching and Learning 56

lack of physical engagement, which could lead to difficulty engaging students. That danger is more obvious among young learners, who can easily be distracted.

Conclusion

In the context of the "new normal", requiring constant changes in all areas of life, despite the challenges we all faced, e-learning was an opportunity in disguise rather than a daunting task. Firstly, it was the only way to fulfill the educational needs of language learners at tertiary level. Furthermore, it facilitated the development of soft skills such as responsibility, decisiveness, and self-motivation, the main drivers of students' performance and success.

To achieve the language course objectives and better learning outcomes educationalists will have to deal with the complexity of online education. One thing is for sure, when the coronavirus ends its deadly march and universities resume in-person classes, education will never be the same. It will be transformed in a more beneficial and relevant hybrid form with much in-person time allocated to interaction with students and video instructions or lectures distributed earlier. The 2019-2022 pandemic clearly outlined the future of education, which would be adaptive, flexible, and innovative.

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Elitsa Stoichkova, M.A.
Digital Technologies as an Integral Part of the Process of Language Teaching and Learning 57

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Language in India www.languageinindia.com **ISSN 1930-2940 22:11 November 2022**
Elitsa Stoichkova, M.A.
Digital Technologies as an Integral Part of the Process of Language Teaching and Learning 58