THE USE OF TECHNOLOGY IN LANGUAGE EDUCATION: VIRTUAL BOARD APPLICATION

EL USO DE LA TECNOLOGÍA EN LA EDUCACIÓN DE IDIOMAS: APLICACIÓN DE LA JUNTA VIRTUAL

Esra Karabacak

Near East University, Faculty of Arts and Sciences, Turkey

Abstract

The use of a virtual whiteboard as an educational tool encourages learning as it enables students to share and interact with information in a virtual environment, thus contributing to the creative learning process by increasing students' interest and understanding. This study aims to examine the purposes of using the virtual board application in language education and to determine its contribution to students' education. The target group of the study was the first-year students of the Department of Turkish Language and Literature and the Department of Turkish Language Teaching. The use of virtual whiteboards was applied to native Turkish speakers in mother tongue education and in teaching Ottoman Turkish with the use of different alphabets. The data obtained were interpreted with the qualitative research method. The findings are evaluated and interpreted within the scope of virtual board studies with technology in face-to-face classical education and online education of basic concepts and practices in language education. It was found that the students who were physically out of school and receiving education from home felt themselves in the classroom environment.

Key Words: comparative education, distance education, language education, technology, virtual board.

Resumen

El uso de una pizarra virtual como herramienta educativa fomenta el aprendizaje, ya que permite a los estudiantes compartir e interactuar con información en un entorno virtual, contribuyendo así al proceso de aprendizaje creativo al aumentar el interés y la comprensión de los estudiantes. Este estudio tiene como objetivo examinar los propósitos del uso de la aplicación de tablero virtual en la educación de idiomas y determinar su contribución a la educación de los estudiantes. El grupo objetivo del estudio fueron los estudiantes de primer año del Departamento de Lengua y Literatura Turcas y del Departamento de Enseñanza de la Lengua Turca. El uso de pizarras virtuales se aplicó a hablantes nativos de turco en la educación de su lengua materna y en la enseñanza del turco otomano con el uso de diferentes alfabetos. Los datos obtenidos fueron interpretados con el método de investigación cualitativa. Los hallazgos se evalúan e interpretan en el ámbito de los estudios de tablero virtual con tecnología en la educación clásica presencial y la educación en línea de conceptos y prácticas básicas en la educación de idiomas. Se encontró que los estudiantes que estaban físicamente fuera de la escuela y recibían educación desde casa se sentían en el ambiente del aula.

Palabras clave: educación comparada, educación a distancia, educación de idiomas, tecnología, tablero virtual.

58

THE USE OF TECHNOLOGY IN LANGUAGE EDUCATION: VIRTUAL BOARD APPLICATION
Karabacak, E.   *Encuentro 32,* 2024, ISSN 1989-0796, pp. 58-66

1. INTRODUCTION

Distance education is a planned learning process that requires special design and teaching techniques; communication is provided through various technologies, and usually, the teacher and student participate in different environments (Moore & Kearsley, 2005). In parallel with the development of technology, the technologies used in distance education have also shown differences and developments especially during and after the COVID-19 pandemic (Fehaima, 2023; Caligaris et al., 2020). Distance education, whose first applications started with teaching by letter, then progressed in the form of textbooks, educational radio and television broadcasts. With the widespread use of computers and the internet, it is seen that distance education is mostly done online. In this context, the concept of online teaching, which can be called one of the distance education methods, has emerged. In the context of online teaching, depending on the quality of the visual and auditory data, the user's feeling of being in that environment will be closer to reality (Can & Şimşek, 2016). These days, there are many different ways that distance education is applied, including synchronous, asynchronous, material sharing, e-learning, and blended learning. Examples of these ways include using learning management systems or online communication environments like Google Meet, Zoom, Microsoft Teams, etc (Uzunboylu, et.al, 2022).

In applying virtual application in education, the student experiences learning by doing and experiencing virtually created environments, and as such, virtual application can be used to create the educational environments of the future; it is possible to use this technology effectively in every field (Kayabaşı, 2005). The contributions of the Internet to education and training, and the nature of Internet-based teaching have contributed to the ongoing debates on online and traditional education and training, and have been important in determining future education and training orientations (Zyad et al., 2023). Thanks to virtual methods and video conferencing technology used for distance education, teacher-student or student-student interaction is realized in a space-independent manner (Süral, 2008; Magayon et al., 2021). The majority of pre-service teachers, whose opinions on the use of virtual reality in education were investigated, concluded that virtual reality technology is interesting and encourages students to be active, is very suitable for students who learn schematically and visually, provides a general idea about the subject, accelerates learning and facilitates comprehension by facilitating the application of information, and that this technology requires concentration (Başaran, 2010; Illarionova et al., 2021; Monica et al., 2021).

It is a fact that the spread of studies on the use of virtual reality technologies in the field of education will shape the education system of the future and that applications may become widespread and become a part of the education system in the future. Developments in communication technologies have led to the widespread use and increased effectiveness of internet-based education (Issayev et al., 2022). The great increase in the number of examples of applications with virtual boards in distance education has started to attract intense interest. Distance learning has become a good method for students because it is a learning environment that is independent of time and space, provides student opportunities, and is easy to evaluate (Aljarrah et al., 2020).

Scientific studies conducted on using virtual reality technology in education stated and exemplified that this technology has an important place in language acquisition. Virtual environments can be easily

59

THE USE OF TECHNOLOGY IN LANGUAGE EDUCATION: VIRTUAL BOARD APPLICATION
Karabacak, E.   *Encuentro 32,* 2024, ISSN 1989-0796, pp. 58-66

adapted to face-to-face environments and facilitate the learning of concepts by interacting with the content, but this requires high-quality data. A virtual environment or an imaginary environment is a form of human-computer interaction in which users interact with this world (Choi et al., 2016). It can also be called a computer-generated concept that enables collaboration between users and integrates information tools with the real environment. Users have the opportunity to enter a computer-generated space in a virtual environment and have different experiences there (Tepe et al., 2016).

The virtual environment, which gives users the feeling of mentally entering and being in the simulation space, can be seen as an interaction that allows users to engage in activities within this space. In line with the definitions made, applications in the virtual environment can be summarized as a technology in which users can have realistic experiences in an artificial environment created by a computer and interact with other objects and information tools (Kandemir & Demir, 2020). Studies in the field of language teaching need scientific innovations and technology more than other branches of science in social sciences (Kovacs et al., 2021). The main reason for this is that it has been extremely important to produce sounds and images of the speakers of the language and then use them as teaching materials in language classes and laboratories (Kartal, 2005).

Language teaching first met technology in the first quarter of the 20th century. The theory put forward by the American psychologist Watson (1878-1958) in 1913 rejected perception and consciousness altogether and limited the psychological object to observable forms such as movement and technology (Girard, 1972). With this technological approach, first computerized studies, smart boards, then distance education and virtual board applications took place.

Virtual classrooms are located in a computer-based system. When the interaction in educational environments is examined, it can be said that the most interaction is in a face-to-face environment and the closest interaction to a face-to-face environment is in virtual classroom software. In online training using virtual whiteboards, activities can be recorded and the recordings can be watched over and over again when desired. Virtual technology, and virtual whiteboards, can be easily used and data can be collected in areas that require education, medicine, military, architecture, and technical intervention. Virtual reality technology addresses a wide range of areas. For example, it makes important contributions in the implementation of experiments that may be dangerous or impossible in real environments, in virtual exercises in the military, in the production of music in virtual environments created for pilot training, and in the creation of virtual museums that serve culture (Kayabaşı, 2005). It is seen that virtual environments, which provide perceptual clues and multidirectional feedback to students, can be easily integrated with real environments, allowing students to interact with the content and facilitate the learning of concepts. In addition, the feeling of being in the environment and imagination helps students to develop problem-solving skills and helps students construct knowledge by providing highly interactive learning experiences (Can & Şimşek, 2016).

This technology allows students to interact with each other in a virtual environment by appealing to the senses such as sound, image, and touch by allowing bringing students from far distances together in a virtually created environment (Kandemir & Demir, 2020). It is known that virtual boards and virtual board-like technologies that create new teaching environments are very useful, especially in distance education. This technology can be used for educational purposes in all areas, including areas that are

very difficult to physically reach and experience (Can & Şimşek, 2016). Technological change, especially the use of virtual whiteboards, brings a selective structure to the field of language education. Therefore, all of the methods, approaches, techniques, and principles used in this field have always been developed with a selective understanding from past to present.

When students and educators do not have the opportunity to come together in a physical environment, they can find the chance to interact and communicate in a virtual environment. In this way, this technology can be used effectively in many fields of education, including language education, as it allows students from different countries or different cities in the same country to meet. In addition, students can benefit from virtual whiteboard applications, especially in the field of language education, in the application of sampling and mutual activity in understanding the basic structure of language education. The use of virtual whiteboards has come to life effectively with the user's desire to be involved in two-way interaction in the communication process (Yengin & Bayrak, 2018).

In virtual board applications, classes always remain as they were last left and can be used repeatedly. Lessons can be recorded and then these recordings can be edited or made available to learners as they are. Virtual board recordings are presented without any editing. The recordings are uploaded to the computer by the instructor and the course content is also used in the distance education system. In addition, virtual applications have limitations such as being insufficient in non-verbal communication, requiring some technical equipment, and imposing a workload on instructors in terms of use and management.

With the development of technology in recent years, the concept of virtual applications has gained importance. It becomes necessary to exist in the changing technological world and to adapt to various technologies. Especially in the field of education, it is necessary to follow and implement new technologies. To transition to the active participant status that occurs in the process of acquiring information with new communication technologies, there should be significant changes in teaching methods. Thanks to the new technology methods used in education systems, education, and training have gained the opportunity to be carried out by students independently from physical environments.

Nowadays, one of the developing educational opportunities allows users to have virtual learning experiences in an interactive way through technological features. To feel that you are in an unreal environment and to interact with objects created with the help of computer programs, high-quality data must be provided. There are many studies on education in virtual environments, especially in recent years. However, when the literature on the subject was examined, it was revealed that the majority of the research was in the online system with visual material content and that there was field research on the projects implemented by educational institutions on this subject. Through these studies, it has been possible to examine the contributions of virtual whiteboards to education, especially in the case of education using virtual whiteboards, and even in the case of dual use of face-to-face and online education in the field of language. From this point of view, it is necessary to examine how virtual board applications are used in the field of education and what kind of contributions they make to education by seeing them in the field where the application is made.

The use of a virtual whiteboard as an educational tool encourages learning as it enables students to share and interact with information in a virtual environment, thus contributing to the creative learning

61

THE USE OF TECHNOLOGY IN LANGUAGE EDUCATION: VIRTUAL BOARD APPLICATION
Karabacak, E.   *Encuentro 32,* 2024, ISSN 1989-0796, pp. 58-66

process by increasing students' interest and understanding. This study aims to examine the purposes of using the virtual board application in language education and to determine its contribution to students' education. Based on this purpose, the following questions were sought to be answered in the study: For which purposes is the virtual application used in the field of education?

With this study, it is expected that institutions and individuals providing online distance education will have information about what a virtual classroom is, its features, usage areas, benefits, and limitations. In addition, it is foreseen that the examples and comparison of virtual classroom software presented in the last part of the study will contribute to their ability to choose the virtual classroom in line with their needs. (İzmirli & Akyüz, 2017).

2. MATERIALS AND METHOD

2.1 Data Collection Techniques

Online education in the use of virtual whiteboards is defined as teaching using network technologies. In online education, one of the ongoing applications at the same time is virtual classroom software. In this study, which uses the distance education course method, virtual classroom applications used in the online environment were examined. In the study, language training applications were made using a virtual board within the scope of online education. While evaluating the data, many applications such as learning management systems, material sharing, homework assignments, and exams were utilized. In addition, the evaluation of virtual board software was also emphasized. In this regard, students' practices were interesting. They were asked to produce applications within the scope of the virtual board software requested from them.

2.2 Participants

The application was evaluated by the students of Near East University, Faculty of Arts and Sciences, Department of Turkish Language and Literature, Atatürk Faculty of Education, Department of Turkish Language Teaching, and Faculty of Theology. Here, face-to-face and online education was provided in the courses given in the field of Turkish Grammar and Ottoman Turkish. In line with the results, the results of the applications of using virtual boards in content-oriented applied education were analyzed by data analysis.

2.3 Data Analysis

Data analysis is the process of evaluating the virtual board applications data collected on the subject, summarizing them in general, and reevaluating the results by classifying them (Büyüköztürk et al., 2014). The existing data were organized and interpreted within the framework of the applications given to the students. In the study, descriptive research was conducted as it was aimed to evaluate the available data. The studies in Ottoman Turkish, which is learned in different alphabets are evaluated, of which the success rate is less than seventy percent compared to face-to-face education. The permanence of the board the importance of the written document in language lessons, the way the letters are written, and the mobility of the hand were considered as well. The findings are evaluated and interpreted within the scope of virtual board studies with technology in face-to-face classical education and online education of basic concepts and practices in language education.

2.4 Procedure

In the study, within the framework of virtual board applications in education, the method used for typical language education from sampling methods was used. The applications with the students of Near East University, Faculty of Arts and Sciences, Department of Turkish Language and Literature, Atatürk Faculty of Education, Department of Turkish Language Teaching, and Faculty of Theology were evaluated. Here, face-to-face and online education was provided in courses on Turkish Grammar and Ottoman Turkish. The same topics were presented to both groups. Especially Ottoman Turkish has a different alphabet, which has enabled us to obtain different results. In Turkish Grammar, students whose mother tongue is Turkish were given online and face-to-face lessons on Phonetics, Morphology, and Sentence Knowledge. The Ottoman Turkish course was also offered online and face-to-face to the aforementioned departments. The data obtained as a result of the applications were evaluated and opinions on the usability of the virtual board were reported.

3. RESULTS AND DISCUSSION

Within the scope of the study, exams and oral presentations were determined and results were obtained within the framework of the contributions of the students. It was found that students who are physically out of school and studying from home feel themselves in the classroom environment and do not fall behind in their education. It was understood that the physical location where the student is located can make them feel that they are in the classroom environment. In this regard, it is understood that the teacher, the virtual board, and the student can be controlled remotely (McLellan, 1996). In remote virtual board-implemented language education, the teacher creating a special course design, using different teaching techniques and communication methods due to the difference in space or time, or being separated in terms of both time and space, made the teaching more quality, especially in the Ottoman Turkish course, which has a different alphabet, caused an increase in the level of success in solving and applying the letters (Özarslan, 2008).

In addition, students who could not watch the lectures live also had the opportunity to watch the lectures through lecture videos and virtual board summaries with separate topics on the same page. Virtual board data was available for viewing. In simultaneous distance and face-to-face education, students read aloud what was written on the board to the distance learners. When the lesson is over, the students in the classroom, with the teacher's guidance, join the class via the virtual board and communicate. This way of teaching the lesson motivates the distance learners who are not physically present in the classroom. The reason why the interaction between traditional media tools and the target audience is not very strong is that the user individual cannot intervene in the content and receives the message as a result of a one-way communication process. The virtual board has become a technological transformation tool. The only deficiency in the training with the virtual board is that teacher-student communication cannot be done in triplicate at the same time in both online and face-to-face instant training. It created a shortage of interaction. Apart from this, the use of the virtual board did not give any negative results in online education. On the contrary, technology supports increased success.

In the virtual use, students were asked to actively participate in the lesson. Whether they learned the subject or not was interpreted through classical and test exams. As in face-to-face education, it is also possible to see that they can contribute to the lesson while teaching the lesson. In the Ottoman

Turkish course, which has a different alphabet, it is possible to look at its applications in face-to-face education. In virtual board-supported online education, writing processes can be followed by reflecting on the presentations on the virtual board from a different perspective. Because the lessons were taught by choosing learning and application methods in the virtual board application. In addition to the virtual board, visual material projection (PowerPoint, etc.) also makes this education style more successful. Internet problem is a problem in the virtual application. The internet infrastructure needs to be strong to be uninterrupted, and the internet infrastructure in their location needs to be good for students who receive online education to be able to watch the lessons without interruption.

4. CONCLUSION

The link between language teaching and technology has been extremely important. It should not be forgotten that language teaching can be opened to the masses thanks to the integration of language and technology. All technologies used in language teaching from the past to the present have brought a new vitality to the field and have always revolved around the same method in terms of learning-teaching techniques. As the search for innovation in language teaching continues, technological inventions will always be used in this field. While there are audio and written presentations, visual materials, and different board uses (smart board, virtual board, etc.) have also been added.

Today, technological applications facilitate learning and transform education into a form that can be accessed at any time, while educational technologies, which are developing day by day, offer new alternatives. With virtual whiteboard applications, students can access content that can be presented independently from the school at any time, and they can access educational opportunities independent of time and space. To be able to talk about education with a virtual whiteboard application, all the necessary elements suitable for this virtual environment must be available in that environment. In this way, the virtual application can support education by allowing its users to cooperate and interact. As a result of the observations and findings of the university students within the scope of virtual board-based education for language education applications, the following information was obtained in general:

In this study, the definition, features, usage areas, benefits, and limitations of virtual board software are discussed and the commonly used virtual classroom environments are compared. It is aimed to create a classroom that brings together instructors and students from different locations simultaneously in an online environment, to present and compare the elements that exist in the real classroom environment. For example, in online education, the instructor can give a lecture with narration, and students can participate in the lecture with the help of a virtual board (written, audio, or audio-visual) from wherever they are. This method is used in online education programs, certificate programs, vocational training activities, and web-based meetings.

They have benefits such as providing a space-independent environment, providing simultaneous education to very large masses, reducing the cost of education, and recording the lessons. On the other hand, virtual whiteboard applications have limitations such as being inadequate from time to time, requiring some technical equipment, and imposing a workload on instructors in terms of use and management. Despite all these limitations, they stated that virtual classroom software can contribute to learning when looking at the benefits it offers. To make online education students feel themselves in the classroom environment, they can connect to the classroom environment where their friends are

located through the use of the virtual board and see them from their point of view, communicate as if they were in the classroom, participate in the lesson and voice the writings on the board, and this way of teaching the lesson provides morale and motivation away from the classroom environment, It would be appropriate to ensure the continuity of this system, to carry out the necessary studies to ensure the active participation of students in the learning process and to increase their interaction with the content, to eliminate the related problems by strengthening the internet infrastructure and to ensure that not only university students but also all students can participate in virtual training. Finally, it should be aimed that the education system in our country should closely follow the rapidly developing technologies and implement more different types of studies that will support education using virtual technology, support students' education with practice in addition to theoretical explanations, and train specialized individuals.

REFERENCES

Aljarrah, A. A., Ababneh, M. A.-K. & Cavus, N. (2020). The role of massive open online courses during the COVID-19 era: Challenges and perspective. *New Trends and Issues Proceedings on Humanities and Social Sciences*, *7*(3), 142–152. https://doi.org/10.18844/prosoc.v7i3.5244

Başaran, F. (2010). Prospective teachers' views on the use of virtual reality in education (Sakarya University BÖTE sample). (Unpublished Master's Thesis). Sakarya University, Institute of Social Sciences, Sakarya.

Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö.E., Karadeniz, Ş. & Demirel, F. (2014). Scientific Research Methods (8th Edition). Ankara: Pegem Akademi Publications.

Caligaris, M. G., Rodraguez, G. B. & Laugero, L. F. (2020). A semester of home-classroom. *International Journal of Innovative Research in Education*, *7*(2), 47–52. https://doi.org/10.18844/ijire.v7i2.5431

Can, T. & Şimşek, İ. (2016). New technologies in education: Virtual reality. Educational Technology Readings, 2016. *The Turkish Online Journal of Educational Technology (TOJET)*, *21*, 351-363. http://www.tojet.net/

Choi, D. H., Dailey-Hebert, A. & Estes, J. S. (Eds.). (2016). *Emerging tools and applications of virtual reality in education*. Hershey, PA, USA: Information Science Reference. https://www.igi-global.com/pdf.aspx?tid%3D177858%26ptid%3D131734%26ctid%3D17%26t%3Demerging+tools+and+applications+of+virtual+reality+in+education

Fehaima, A. (2023). Pedagogical implications of a blended learning model at Temouchent University. *Contemporary Educational Researches Journal*, *13*(2), 172–182. https://doi.org/10.18844/cerj.v13i2.9021

Girard, D. (1972). *Linguistique appliquée et didactique des langues* (pp. 136-137). París: Armand Colin. https://pascal-francis.inist.fr/vibad/index.php?action=getRecordDetail&idt=13210610

Illarionova, L. P., Karzhanova, N. V., Ishmuradova, A. M., Nazarenko, S. V., Korzhuev, A. V., & Ryazanova, E. L. (2021). Student attitude to distance education: Pros and cons. *Cypriot Journal of Educational Sciences*, *16*(3), 1319–1327. https://doi.org/10.18844/cjes.v16i3.5857

Issayev, G., Bagdat, B., Abay, D., Aizhan, S., Baimanova, L. & Almazhai, Y. (2022). Application of information technologies in distance learning in the field of higher education. *World Journal on Educational Technology: Current Issues*, *14*(4), 1017–1024. https://doi.org/10.18844/wjet.v14i4.7650

İzmirli, S., & Akyüz, H. İ. (2017). Examining synchronous virtual classroom software. *Journal of Theory & Practice in Education (JTPE)*, *13*(4). https://tinyurl.com/5xkrwa22

Kandemir, C. and Demir, B. (2020). On Virtual Reality Applications in Education: Ben de Varım Project in the Classroom. *The Turkish Online Design, Art and Communication-TOJDAC, 10*(4), 339-354. https://dergipark.org.tr/en/pub/tojdac/issue/56985/778693

Kartal, E. (2005). Information and Communication Technologies and Language Teaching Industry. *Journal of Uludağ University Faculty of Education, 18*(2), 383-393. https://kutuphane.uludag.edu.tr/Univder/uufader.htm

Kayabaşı, Y. (2005). Virtual reality and its use for educational purposes. *The Turkish Online Journal of Educational Technology (TOJET), 4*(3), 151-166.

Kovacs, G., Nagy, I. K., & Biro, E. (2021). Shifting future: Language teaching today and tomorrow. *International Journal of New Trends in Social Sciences*, *5*(2), 66–72. https://doi.org/10.18844/ijntss.v5i2.5475

Magayon, V. C., Saccuan, R. & Carbonell, A. (2021). Expectation vs. reality: A sentiment analysis of students' experience on distance learning. *International Journal of Learning and Teaching*, *13*(4), 260–275. https://doi.org/10.18844/ijlt.v13i4.5979

McLellan, H. (1996). Virtual realities. In D. H. Jonassen (ed). Handbook of research for educational communications and technology. USA: Macmillan Library Reference.

Monica, C. G., Edison, T. de Oliveira, & Telles, S. (2021). Active methodologies supported by interaction and communication technologies in higher education: Communication Technologies in Higher Education. *Global Journal of Information Technology: Emerging Technologies*, *11*(2), 47–54. https://doi.org/10.18844/gjit.v11i2.6117

Moore, M. & Kearsley, G. (2005). *Distance education: A systems view (2nd edition).* Belmont, CA: Thomson Wadsworth.

Özarslan, Y. (2009). *Telepresence solutions in distance education related to social presence perception*. Proceedings of Academic Informatics, 11. Academic Informatics Conference, 265-268. Şanlıurfa: Harran University.

Süral, İ. (2008*). Openness, remoteness, and learning in distance education in the light of new technologies*. Proceedings of 13th Turkey Internet Conference, 31-34. Ankara: Middle East Technical University.

Tepe, T., Kaleci, D., & Tüzün, H. (2016, May). New trends in educational technologies: virtual reality applications. In *10th International Computer and Instructional Technologies Symposium (ICITS)* (Vol. 16, No. 18, pp. 547-555). https://yunus.hacettepe.edu.tr/~htuzun/html/academic/2016-ICITS%20-TepeKaleciTuzun.pdf

Uzunboylu, H., Akcamete, G., Sarp, N., Demirok, M. (2022). Primary Schoolteachers' Opinions about Gifted Education Programmes in Distance Education. *Sustainability 14*, 17031. https://doi.org/10.3390/su142417031

Yengin, D. & Bayrak, T. (2018). New media and virtual reality. Istanbul: Istanbul Aydın University Publications.

Zyad, H., Benzehaf, B., Yeou, M., & Daouia, L. (2023). Comparison of E-learning versus traditional instruction in transferring a Foreign Language Learning English grammar knowledge to students' writing abilities. *Global Journal of Foreign Language Teaching*, *13*(2), 96–108. https://doi.org/10.18844/gjflt.v13i2.6483

66

THE USE OF TECHNOLOGY IN LANGUAGE EDUCATION: VIRTUAL BOARD APPLICATION
Karabacak, E.   *Encuentro 32,* 2024, ISSN 1989-0796, pp. 58-66