NEW TECHNOLOGICAL TRENDS IN ENGLISH LANGUAGE LEARNING

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Abstract
In our age, learning a foreign language has become a life-long problem. Good learning of a foreign language from primary school to university and workplace environments is compulsory to compete in the international community. The prominent trends in foreign language learning in the world and in our country have led to many learning styles due to the dazzling development of technology. Together with the developments in technology, it is considered that the borders of the worlds disappear and that the language of science has been transformed into English. For this reason, both in the world of education and in the business world, knowing English carries the person further. This contributes to the fact that those who know English are the most preferred choice in the business world and their personal accomplishments. In spite of this, it is evaluated that there are various difficulties in learning English and the contribution of technology to the learning of English is not discussed enough. There appears to be a gap in this area. New approaches and methods in education also changed the traditional face-to-face English learning and took it to a different level.

Keywords: augmented reality, artificial intelligence, 3D virtual learning environments, English education, technology.

1 INTRODUCTION
The rapid developments in technology have changed our daily lives as well as in our educational life. These developments in technology have also influenced English education. The main problem that this paper will focus on is how a three-dimension (3D) virtual learning environment (VLE) [1], augmented reality (AR) [2] and artificial intelligence (AI) [3] can contribute to learning English. In this context, research questions will be the benefits of these technologies in educational environments and how these benefits will contribute to the learning of English and who will benefit from these results. As a research methodology, literature review on scientific articles published in prestigious journals has been used. Over the past two decades, learning has begun to change as a result of human-computer interaction [4]. The extraordinary developments in computer and internet technologies and three-dimensional (3D) modelling make new approaches and methods in education a necessity rather than a need and offer new learning opportunities for both students and teachers. The first and most important of these are 3D VLE and is the pioneer of AI with AR. The 3D VLE consists of objects created from a computer database consisting entirely of objects modelled with computer-aided design (CAD) software [5]. These objects are programmed to behave in certain ways when the user interacts with them. It is considered that incorporating learning in 3D VLE as part of teaching, using gamification or integrating with technology-supported fields will facilitate learning everywhere. A 3D VLE serves students who support distance learning and social interaction, as well as enabling students to see and experience things that are otherwise difficult to learn in education. Thus, learning is moved to a different dimension. When students interact with others, they feel more empowered and advanced. With the gamification learning environment being engaging, motivating and rewarding, students learn and practice foreign language learning practically [6]. This form of learning, which creates more awareness, provides real-time learning with this environment which is not found in traditional classes. Nowadays, AI is known to be used in some areas such as recommending movies, filtering e-mails and making shopping suggestions. It is expected that the industrial revolution will change its dimension in the future with the invention of electricity and reshape life in every field in the future. In this context, it is expected that it will give a different dimension to the educational habits in the field of foreign language learning especially English [7]. On the other hand, it is considered that AR applications can serve many purposes in education just like AI. For example, helping students easily acquire, process, and remember information and make learning more engaging and enjoyable. At the same time, it is not limited to a single age group or educational level and it is thought to be used equally from primary school to university and even in all fields. AR has the potential to replace various hand notes, posters, printed manuals. It offers portable and cheaper learning materials because it can also be accessed from a digital device such as a mobile phone [8]. As a result, education becomes more accessible and mobile. Along with developments in....
information technologies and integration into the English curriculum, this study is expected to shed light on students, teachers and education managers who are interested in teaching/learning foreign language especially English.

2 METHODOLOGY

A literature review of the related research was made in the study. Various databases such as EBSCOhost, ProQuest, Science Direct, Web of Science, Scopus, and Google Scholar were searched to provide a bibliography of the academic literature on new technological trends in English language learning. The relevant studies were included and analysed by the topic area. The aim of this paper is to reveal the benefits of new technological trends in English learning in educational environments based on literature findings and to shed light on how the results of the study will contribute to who. It will also support existing literary sources for researchers interested in new technological trends in learning English. In other words, in this study, we emphasized the importance and impact of new technological trends in the education industry and added value for society.

3 RESULTS

3.1 3D Virtual Learning Environment

As a result of the rapid development of technology, developments and popularity in wireless communication techniques and multimedia environments have revealed the advantage of language learning especially English in a virtual reality (VR) environment. In short, 3D VLEs are defined; three basic components are provided that these are 3D VLEs, avatars that provide visuality and chat rooms where users interact with each other [9]. It can also be defined as 3D virtual technologies, creating an immersive and interactive learning environment to facilitate or help learners. 3D VLEs can give very striking results, especially when used in English education. Users can improve their language learning abilities by using their imagination through 3D learning environments. In this context, many 3D VLEs have been implemented. Some of these are Second Life (SL) [10], Twinity [11], Active Worlds [12], Open-Sim [13] and others (Fig.1). For example, SL, which is used in computer-based and 3D format, differs from traditional face-to-face education environments, enhances English learning, increases motivation, and maximizes active learning and creativity [14]. The potential benefits that SL can bring to English language education are that it is possible to do experiments with SL for language education and to create virtual classes known as language labs. Benefits include language teachers using virtual classes to simulate real-world education. In addition, avatars used in 3D VLEs make the language learning more enjoyable and increase the benefits. There are four dimensions of learning according to the Felder and Silverman Learning Styles Model [15]. This model classifies and represents each student to one of two poles of all sizes according to their size. 3D VLEs are designed according to this model and are considered to be widely used in terms of results. What individuals need in the complex learning process develops spontaneously during the learning process, and the 3D VLEs used in learning make the learning dynamic by maximizing human-computer interaction [16], [17], [18].

(a) The Snapshot from Second Life [10]  
(b) The Snapshot from Twinity [11]
3.2 Augmented Reality

Developments in technology are rapidly rising in a way that affects our daily life. Mobile phones and AR applications are one of the most effective and innovative elements in learning English [19]. Augmented reality (AR) is the simulation of the real-world environment in which the real-world objects, visual, auditory, tactile and similar sensory modelling methods are developed by the computer [20]. In a different way, it allows users to interact with digital content and superimpose virtual graphics on real objects. AR systems are widely used in education and are increasingly used with mobile devices. In addition, if we look at the real and virtuality process, concepts such as AR concept and virtual environments will be better understood (Fig.2).

There are five aspects of AR in educational environments; Discovery-Based Learning (This type of application is used in museums, astronomical education and historical places), Object Modelling (This type of application is also used in architectural education), AR Books (with the help of special glasses), AR Game (Highly interactive and visual forms of learning) and Skill Training (Especially mechanical skills) [21]. In this context, considering the benefits of augmented reality applications, that students are more motivated while learning English [22], increased attention due to high interaction, the concentration is complete during AR use [23], because of the satisfactory learning and fun learning style, it was observed that the level of satisfaction for the next use was quite high [24]. As a result, it is considered appropriate for AR to use time effectively for both teachers and students and especially education administrators [25].
3.3 Artificial Intelligence

Artificial intelligence (AI), although many definitions in the literature already exist, can often be expressed by computers as capabilities enhanced by simulating human intelligence and making logical inferences [26]. AI is an interdisciplinary field of knowledge and research, which is to understand how the human mind works and how the same principles are applied in technology design. In the English language learning and teaching phase, the AI will be used to imitate the behaviour of the teacher or student. In this context, firstly, AI will have a comprehensive impact on the teaching curriculum. The change in curriculum has led to learning forms of distance learning (d-learning) [27], mobile learning (m-learning) [28], flipped learning (f-learning) [29], blended learning (b-learning) [30] etc. The development of these dynamic learning styles and the effective use of educational data have positive effects on both teachers and students. As a result, learning management systems (LMS) have emerged and are currently being used by almost all educational institutions. An LMS adds a new dimension to the way universities communicate with students [31]. An innovative LMS has a wide range of educational content. The online learning and mobile learning capabilities offered by an LMS make it easier to make teaching more effective [32] and to prioritize and evaluate feedback. The AI, which is embedded in an LMS, has been found to work much more effectively in the evaluation of multiple assignments and exams, and in identifying learning and teaching gaps [33]. While artificial intelligence provides feedback for student's repetition of the subjects they are missing, it offers a proactive method of learning by offering different alternatives to the topics that need to be repeated for teachers. As a result of the studies, it has been observed that artificial intelligence tools give individuals more personal and positive results in the learning of English [34]. With the use of AI, traditional English learning will change and will be available ubiquitous, regardless of time and space [35]. Artificial intelligence is applied creatively to the memory of learning and learning process [36].

4 CONCLUSIONS

The paper provided a brief overview of the effects of 3D VLEs, AR and AI in the light of new technological developments influencing English education. In recent years, the rapid development of technology, the globalization of the business world has led to the emergence of the English language as the common language of communication. Therefore, the requirements of the business world forced educational institutions to be more flexible. The business world offers many different opportunities for young people graduating from the university, but at least expects language experience. Because of the lack of English education during his/her education, he/she has been involved in many different applications in technology education for individuals who have missed a lot of job opportunities or want to improve themselves. In the future, the need for information will continue to grow and shed light on new revolutions. While complex industrial processes such as the Internet of Things, 5G technology, artificial intelligence, and big data emerge, the creator of technology and the most important force multiplier will continue to be human capital. Technological developments such as learning management systems developed in this scope and the successive 3D VLEs, AR, AI provide unique opportunities for individuals to develop their English language as a second language and lifelong learning. The use of the technologies in English language education is no doubt new, but the IoT and the information age are what people expect from people at all times and everywhere to adapt to the
situation in a more practical and pragmatic way. The human capital required by the business world can improve themselves in a competitive environment by learning English through these technologies. In this context, methods used by educational institutions with different learning methods will make both teachers and students more successful. The findings of the study are based on literature review and confirm the assumption that the effects of English language education increase significantly with the use of 3D VLEs, AR and AI. Higher education sectors that contribute to human capital will need to meet the needs of the business world and use these technologies in their schools to help students develop themselves for the future world of competition. As a result, it is not difficult to get the maximum benefit by using the opportunities provided by technology to provide quality human resources to the business world and to meet the communication needs in the globalized world.

REFERENCES


