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Online Learning Readiness: A Case Study in the Field of English for Medical Purposes

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Abstract
The purpose of this study is to find out online learning readiness level of medical students at a university in the northeastern part of Turkey. As a part of a program development process with a focus on online Medical English, the researcher aimed to determine medical students' online learning readiness level. To this end, Turkish version of Online Learning Readiness Scale (OLRS) was employed [original version by Hung, Chou, Chen and Own (2010) and Turkish version by İlhan and Çetin (2013)]. A total of 189 students completed the scale. The overall results suggest that once the internet and computer self-efficacy of the participants are improved, they appear to be ready for the adoption of online learning.

Key words:English for medical purposes, ELT, online learning, readiness

Introduction

Today, global technological innovations and widespread use of information & communication technologies have led to transformations in every part of life, from business to educational environments. In line with such developments, physical educational settings have been gradually replacing with virtual or online educational platforms.

There have been an emphasis on the effectiveness (Harasim, 2000; Rosenberg, 2001), the success of online learning (Kerr, Rynearson and Kerr, 2006) or the satisfaction level of stakeholders (Roach and Lemasters, 2006) about these online learning environments; however, readiness level of stakeholders including learners, teachers, administrative figures should be taken into consideration prior to such innovations. As for the prospective users of these new learning environments, online learning readiness is a key in determining the feasibility, adoption or potential use of the suggested online learning environment.

While some parties seem to familiarize themselves with online learning environments and recognize its value, some parties still resist. As emphasized in the literature, one of the impediments in adoption of online learning is the question of quality (Bach, Haynes & Smith, 2007; Garrison, 2005; Ko & Rossen, 2010; Marks, 2016). In order to meet the quality

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standards and expectations, assessment of online learning readiness seems to be one of the best ways to depict the picture prior to an implementation and take further steps in the right direction throughout the process. In addition to this, it is argued that although several online learning platforms or applications are designed well technically, most of them have not attended to learners' needs (Borotis, Zaharias and Poulymenakou, 2008). In order to address this issue and accordingly, to make best use of technology, online learning readiness is primary part of online learning adoption process.

Online Learning, Online Learner and Online Learning Readiness

Online learning is "a form of distance education, a process that traditionally included courses taught through the mail, by DVD, or via telephone or TV-any form of learning that doesn't involve the traditional classroom setting in which students and instructor must be in the same place at the same time" and called as e-learning, that is to say, electronic learning as well (Ko and Rossen, 2010, p.3). The first totally online courses is claimed to begin in 1981 and first online program in 1982 (Harasim, 2000). And also, it is stated that these steps realize by mostly trial and error. In 1996, first large-scale online education was conducted with Virtual-U Research Project which had the largest field trials with 15.000 students and 250 faculties in over 439 courses (Harasim, 2000).

There are basically three modes of educational delivery within the scope of online education:

- Adjunct mode uses networking to enhance traditional face-to-face or distance education.
- Mixed mode employs networking as significant portion of a traditional classroom or distance course.
- Totally online mode relies on networking as the primary teaching medium for an entire course or program (Harasim, 2000, p.46).

Hybrid learning, blended learning and augmented learning are also other similar labels referring to the integration of online learning with face-to-face traditional classroom practices (Bach, Haynes & Smith, 2007, p. 31). Online learning can take place in a variety of environments and offer freedom to both parties, that is to say learners and teachers, in terms of time. According to mode of communication and meeting time of the parties, online learning takes form as synchronous and asynchronous. If all parties meet at the same time and communication takes place in real time, this type refers to synchronous online learning. However, if any parties do not have to be online at the same time, asynchronous communication takes place and this type is called as asynchronous online learning. A combination of both is also possible in online learning (Ko and Rossen, 2010). Each type has some strengths and weaknesses which should be necessarily covered before any attempt in implementation of online learning.

Different from the conventional face to face learning, online learning requires learners to be competent users of technology, that is, internet, computers and the devices that they need to employ in the online learning environments. In other words, while learners are solely learners in conventional classrooms, they are now learner-users who are supposed to "make cognitive and affective functions" during learning and also to "make functional connections" during using; hence, "double persona" of the learner-users should be nurtured so that adoption

and sustainability of the online learning are managed successfully (Smulders, 2003). Especially, user part of the online learner needs to be addressed and improved before adopting this new online learning environment. Based on this, different factors and dimensions are considered in assessing online learning readiness. For instance, while self-efficacy takes place an important part in cognitive processes in traditional learning, the dimension of computer self-efficacy is added when it comes to online learning. Accordingly, online learning readiness increases if computer self-efficacy increases (Hung, Chou, Chen and Own, 2010 ; Kerr, Rynearson and Kerr, 2006).

Online learning readiness in general refers to all stakeholders' preparedness for an online learning process mentally and physically. In line with this, several issues including the technical, content, organizational, human and financial resources have an effect on online learning readiness. Moreover, there are some crucial success factors for online learning adoption process. These success factors are as follows: objectives, leadership, empowerment of the learning aspect, technological infrastructure, blended instruction, careful design, evaluation and feedback, time and space to learn, motivation to learn, usability and complete knowledge of learners' characteristics (Borotis, Zaharias and Poulymenakou, 2008).

Related Research

Hung, et al., (2010) conducted a study on scale development and 1051 college learners' perceptions of online learning in Taiwan. With their Online Learning Readiness Scale (OLRS), Hung, et al., (2010) pointed out that there are five factors influencing online learning readiness. These factors were self-directed learning, motivation for learning, computer/Internet self-efficacy, learner control and online communication self- efficacy.

Deveci Topal (2016) investigated 352 university students' level of readiness and satisfaction of online courses in Turkey. The researcher employed the scale developed by Hung, et al., (2010) for online learning readiness and an online course satisfaction scale covering 35 items and a total of 5 sub-dimensions like course content, teaching process, materials and communication tools, attitude towards e-learning, environment design and instructor-student interaction. The findings put forwarded that online learning readiness level was high in all dimensions and they were observed to be ready for online learning. Meanwhile, overall satisfaction appeared at moderate level, the satisfaction level was higher in the instruction-student interaction and environment design as compared with the level of other sub-dimensions.

By using the same online learning readiness scale as a data collection instrument, in his study conducted with 84 English majoring students in Turkey, Kırmızı (2015) indicated that all the sub-dimensions of learner readiness in OLRS correlated significantly with the concept of student satisfaction and student success. With regression analysis, it was shown that motivation was the most significant factor having an impact on learner satisfaction of online learning while self-directed learning was the most crucial predictor of success.

With 129 first year undergraduate students majoring at the faculty of education, Chinaza, et al., (2015) conducted a study on the relationships between computer self-efficacy, computer related technology dependence and online learning readiness. They found that the participants have computer self-efficacy and dependence on computer-related technology to a great extent. There was positive correlation between computer self-efficacy, computer related

technology dependence and online learning readiness. The participants were found to be ready for online academic education in their case.

Another study in Turkey, Cinkara and Bagceci (2013) aimed to discover learners' attitudes towards the online English course and examined the correlation between learners' attitudes with their end-of-the-year grades. To this end, an online learning attitude test (OLLAT) was employed in the study with 1783 participants. The more than half of the participants' attitudes toward the online English course were found to be positive. The researchers concluded that there was a significant positive correlation between the participants' attitude test scores and grades.

Roach and Lemasters (2006) investigated whether the participants were satisfied with the online program and face-to-face master program in United States. The courses were evaluated via a survey covering items about content and delivery issues of the program. The overall results revealed that there was no statistically significant difference in the participants' satisfaction level of two different modes.

Methodology

Purpose of the study

The current study is an attempt to investigate online learning readiness of the first year students who are attending to English course at the Faculty of Medicine at a middle-sized university in the northeastern part of Turkey. The findings obtained are considered to contribute to the development process of a language program which will be conducted online for the students in our case. In other words, this is one of the steps covered in needs analysis process before developing a new online English program.

Nature of the study

The current study falls into the category of descriptive case study (Yin, 1994) in nature since it aims to determine online learning readiness level of a specific group of students at a specific department at a middle-sized university in the northeastern part of Turkey. To this end, it employs quantitative method since the data is collected via a structured online learning readiness scale.

Data Collection Instrument

Online Learning Readiness Scale (OLRS) developed by Hung, Chou, Chen and Own (2010) is the main data collection instrument in the present study. Though there are similar scales in the related literature, OLRS was preferred since the scale is an up-to-date, valid, reliable, and also, compact. However, in order to obtain valid and reliable data from the participants in the current study, they needed to complete the scale in their mother tongue. Therefore, a validated and reliable Turkish version of the OLRS was used to collect the data. The Turkish version of the OLRS was developed by İlhan and Çetin (2013). The researchers analyzed its psychometric properties in a study conducted with 405 university students which is similar to the sample group of the current study. They suggested that the correlation

between the items in original scale and the items in Turkish version varied between .79 and .98. Furthermore, İlhan and Çetin (2013) conducted the internal consistency, split half, test-retest and composite reliability coefficients and stated that the values were within statistically acceptable limits for the social sciences. All in all, the Turkish version of the OLRS covers a total of 18 items and five dimensions. Accordingly, there are 5 items for the dimension of self-directed learning, 4 items for motivation for learning, 3 items for computer/Internet self-efficacy, 3 items for learner control and 3 items for online communication self-efficacy. The responses were gathered on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Data Collection

At the very beginning of the data collection, the researchers asked the stakeholders' permission for the whole needs analysis process. Following this consent, the scale was administered to 189 volunteer medical faculty students. The data collection process was conducted in person and in paper. It lasted approximately10 minutes. As it was stated earlier, the medium was Turkish so as to avoid any problem which might result from the language.

Data Analysis

The collected data was analyzed quantitatively. Descriptive statistics including mean score and standard deviation was mainly conducted. The mean score for each item and each dimension was counted. According to the mean score, the level of online learning readiness was determined. In other words, the higher mean score reflects the higher level of online learning.

Findings and Discussion

As aforementioned, the Turkish version of the OLRS is composed of five dimensions covering self-directed learning, motivation for learning, computer/Internet self-efficacy, learner control and online communication self-efficacy. In accordance with the different dimensions of the scale, the findings are presented in the tables. The first table shows the mean scores regarding the dimension of self-directed learning.

Table 1. Self-Directed Learning

Items	Mean	SD
I set up my learning goals.	3.82	1.08
I carry out my own study plan.	3.73	1.21
I have higher expectations for my learning performance.	3.67	1.04
I seek assistance when facing learning problems.	3.65	1.06
I manage time well.	3.48	1.09
Total (N= 189)		

The table 1 indicates that the score of each item showing the level of self-directed learning is mostly higher than 3.40. They state that they mostly manage to set up their learning goals, to carry out their own study plan, to seek assistance when they face learning problems and they have mostly higher expectations for their learning performance. It means that apart from the time management issue, the medical students in our case can mostly direct

their own learning process. The second table below shows the medical students' computer and internet self-efficacy in our case.

Table 2. Computer/Internet Self-Efficacy

Items	Mean	SD
I feel confident in using the Internet (Google, Yahoo) to find or gather information for online learning.	3.83	1.19
I feel confident in performing the basic functions of Microsoft Office programs (MSWord, MS Excel, and MS PowerPoint).	3.16	1.19
I feel confident in my knowledge and skills of how to manage software for online learning.	2.96	1.11
Total (N= 189)		

With a mean score of 3.83 presented in Table 2, it is possible to claim that medical students feel pretty confident in using the Internet tools like Google, Yahoo in order to find information for online learning. The mean score (3.16) regarding the second item under the dimension of computer and internet self-efficacy implies that the medical students in our case moderately believe in their skills in using the basic functions of Microsoft office programs. The mean score of the last item in this section (2.96) is seen to be relatively lower than the previous one (3.16). It shows that the medical students in our case need to improve their knowledge and skills of how to manage software for online learning. The Table 3 below presents the findings about students' control in an online learning context.

Table 3. Learner Control

In an online context,	Mean	SD
I can direct my own learning progress.	3.97	.95
I repeat the online instructional materials on the basis of my needs.	3.63	1.09
I am not distracted by other online activities when learning online (Instant messages, Internet surfing).	3.03	1.26
Total (N= 189)		

As presented in the table 3, in an online context, the students feel that they can direct their own learning process according to the high mean value (3.97). Similarly, the mean score (3.63) indicates that they can have control to repeat the online instructional materials on the basis of their own needs. The overall mean values imply that the students of medical faculty can have control over their learning in an online learning context. In the following table, the findings regarding students' motivation for learning online are presented.

Table 4. Motivation for Learning

In an online context,	Mean	SD
I am open to new ideas.	4.07	1.01
I like to share my ideas with others.	3.99	1.10
I improve from my mistakes.	3.95	1.09
I have motivation to learn.	3.85	1.04
Total (N= 189)		

The mean values in the table 4 seem to be higher as compared to the ones in the previous tables. Specifically, they seem to be open to new ideas as it is indicated with the mean values (4.07), like to share their ideas with others in an online context (3.99), they can improve from their own mistakes (3.95), and they state to have motivation to learn online (3.85). Considering all the findings in the table 4, it can be said that the medical students in our case are motivated enough for learning online.

Table 5. Online Communication Self-Efficacy

Items	Mean	SD
I feel confident in expressing myself (emotions and humor) through text.	3.91	1.04
I feel confident in using online tools (email, discussion) to effectively Communicate with others.	3.89	1.06
I feel confident in posting questions in online discussions.	3.72	1.03
Total (N= 189)		

Table 5 presents the findings regarding the medical students' online communication self-efficacy in our case. The overall mean values suggest that they feel quite confident in expressing themselves in an online communication which is considered as an integral part of learning a foreign language in an online learning environment. In detail, the mean score (3.91) indicates that they feel confident in expressing their opinions and feelings through written text. Additionally, they state that they are self-confident in using online communication tools such as e-mailing, discussions so as to maintain online communication effectively (3.89). The last mean score (3.72) shows that the medical students in our case feel enough confident in posting questions in online discussions which are vital to improve communicative competence in learning a foreign language. The following table presents the overall mean scores regarding the five dimensions covered in this online learning readiness scale.

Table 6. Mean Scores of All Factors in Online Learning Readiness

All factors in Online Learning Readiness	Mean
Motivation for learning in an online context	3.96
Online communication self-efficacy	3.84
Self-directed learning in an online context	3.67
Learner control in an online context	3.54
Computer/Internet self-efficacy	3.31

Except for the last factor referring to the computer and internet self-efficacy issue, the other factors referring to the online learning motivation, online communication self-efficacy, self-directed learning and learner control in an online context appear to be higher than 3.50. The lower mean values may refer to the fact that the medical students in our case have never experienced online learning yet and obviously have no idea about its nature and requirements. As a result, they may feel relatively weaker in controlling themselves in online context and using computer and internet effectively for learning online. However, all the mean values under the online learning readiness scale make it possible to conclude that the medical students in our case seem to be ready for an online learning experience.

Conclusion

The current study was an attempt to determine online learning readiness of the first year students who are attending to English course at the Faculty of Medicine at a middle-sized university in the northeastern part of Turkey. The overall results reveal that the participants seem to be ready for an online learning adoption since they mostly appear to be motivated, to be self-directed over their online learning and feel confident in online communication skills. Nevertheless, the participant students need to develop their skills in using computer, internet and software needed in the suggested online learning program. Briefly, their computer and internet self-efficacy needs to be improved.

Suggestions

Considering the findings of the current study in detail, there are some basic issues that need to be highlighted in this context. The issues in question are namely associated with the factors of learner control in online context and computer & internet self-efficacy. Specifically, first, the participant medical students feel somewhat insecure since they might be distracted by other online activities like instant messaging or surfing when learning online. Second, they seem to be not self-confident enough about their skills in using the basic functions of word, excel or power point programs. Last but not least, they have some doubts about their knowledge and skills of how to manage software for online learning. Based on these inferences, the following suggestions can be taken into consideration for the similar target groups with similar problems. It seems that the students should improve their basic internet and computer skills. To this end, the primary step to take is to prepare introductory informative programs, seminars and workshops for the target students. They should be given some opportunities to experience similar learning environments and improve their skills. Their barriers towards online learning and doubts about the distracting sides of the online learning environments need to be removed via comprehensive training sessions. Once the needs are analyzed and problematic areas are noted, alternative solutions should be negotiated with all the stakeholders and related precautions need to be taken. The learners should be informed about different dimensions of the online learning including facilities, problems and possible solutions to such problems. They clearly need to know what is brought by online environments with a focus on foreign language learning. So as to avoid probable problems resulted from the software use, simple learning environments or learning management systems which require less expertise might be preferred for the first stages. Additionally, help centers, call centers or mailing services might serve well in addressing urgent technical questions or help. In brief, it is critical to prepare students for such an innovation and support them to overcome its challenges in time.

Limitations of the Study

It is important to state that there some limitations in the current study. Due to the nature of the study, all of the findings and conclusions are limited to the medical students in our case. The online learning readiness level of the students is determined via a mini scale which might be considered to be simple because of the number of items. When compared to the similar scales in the literature, it was viable to choose this one since validated and reliable Turkish version was available. Moreover, due to the fact of time limitation and difficult access to data, it was critical to get a picture of the reality in one and fine shot. As aforementioned, the current study is a part of a longitudinal study and the scope of this paper is limited to the data collected via Turkish version of OLRS developed by Hung, Chou, Chen and Own (2010). It is possible to triangulate and validate the collected data via different data collection methods and tools.

References

Bach, S., Haynes, P. & Smith, J.L. (2007). Online Learning and Teaching in Higher Education. USA: Open University Press.

Borotis, S., Zaharias, P. & Poulymenakou, A.(2008). Critical Success Factors for E-learning Adoption. In T. T. Kidd & H. Song (Eds.), Handbook of Research on Instructional

Systems and Technology (pp. 498s-514). NewYork: Information Science Reference, IGI Global.

Chinaza, N. K., Chimezie, B. A., Juliana, A. & Efeyaelu, U.H. (2015). Computer Self-efficacy, Computer-related Technology Dependence and On-line Learning Readiness of Undergraduate Students. International Journal of Higher Education Management, 1(2), 60-71.

Cinkara, E., Bagceci, B. (2013). Learners' Attitudes towards Online Language Learning; and Correspponding Success Rates. The Turkish Online Journal of Distance Education, 14(2), 118-128.

Deveci Topal, A. (2016). Examination of University Students' Level of Satisfaction and Readiness for E-courses and the Relationship between Them. European Journal of Contemporary Education, 15(1), 7-23.

Garrison, D. R. (2005). Quality and Access in Distance Education: Theoretical Considerations. In D. Keegan (Ed.), Theoretical Principles of Distance Education (pp. 8-19). NewYork: Routledge.

Harasim, L. (2000). Shift Happens: Online Education as a New Paradigm in Learning. Internet and Higher Education, 3(1), 41-61.

Hung, M.L., Chou, C., Chen, C.H., & Own, Z.Y. (2010). Learner Readiness for Online Learning: Scale Development and Student Perceptions. Computers & Education, 55, 1080-1090.

İlhan, M., Çetin, B. (2013). Çevrimiçi Öğrenmeye Yönelik Hazır Bulunuşluk Ölçeği'nin (ÇÖHBÖ) Türkçe Formunun Geçerlik ve Güvenirlik Çalışması. Eğitim Teknolojisi Kuram ve Uygulama, 3(2), 72-101.

Kerr, M.S., Rynearson, K. & Kerr, M.C. (2006). Student Characteristics for Online Learning Success. Internet and Higher Education 9, 91-105.

Kırmızı, Ö. (2015). The Influence of Learner Readiness on Student Satisfaction and Academic Achievement in an Online Program at Higher Education. The Turkish Online Journal of Educational Technology, 14(1), 133-142.

Ko, S. Rossen, S. (2010). Teaching Online: A Practical Guide. NewYork: Routledge.

Marks, D. B. (2016). Theory to Practice:Quality Instruction in Online Learning Environment. National Teacher Education Journal, 9(2), 75-79.

Roach, V. & Lemasters, L. Satisfaction with Online Learning: A Comparative Descriptive Study. Journal of Interactive Online Learning, 5(3), 317-332.

Rosenberg, M. J. (2001). E-learning: Strategies for Delivering Knowledge in the Digital Age. NewYork: McGraw-Hill.

Smulders, D. (2003). Designing for Learners, Designing for Users. eLearn Magazine. Retrieved from http://elearnmag.acm.org/archive.cfm?aid=2134466.

Yin, R. (1994).Case Study Research: Design and Methods. USA: SagePublication.