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A Review of Current Studies of Mobile Learning

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Review Article

Abstract

Technological developments influence educational systems. It can be conducted that educational environments are not limited to schools. With the use of technology in educational systems, ways of having to access information have changed, and such concepts as mobile learning have emerged. In recent years, mobile learning (m-learning) has been an important component of distance education. For that reason, the aim of this study is to summarize research findings in the literature by employing literature review. On this basis, research published between 2013 and 2017 was included to the content of this study. Throughout the research, 11 research articles published during that time in 8 prominent peer-reviewed research journals were analyzed. Purposes, methodologies, and outcomes of these researches were explained. Therefore, the study is considered to be important since it tried to reveal the related research trends in mobile learning.

Keywords: Mobile learning, distance education, technology, mobile technology

1. INTRODUCTION

The possibility of global access to mobile devices, especially mobile phones, increases the interest in m-learning day by day. Although mobile learning is a new mean of teaching and learning for the education world, it has a bright and promising future because mobile learning can engage the learner into the educational process by supplying him/ her with alternative environments. Mobile learning is attractive because it enables the learner to get the information, communicate and socialize while on the go. Moreover, it can improve the higher order of thinking skills by enabling personalized learning by motivating the distance learner. When the interest of people into the mobile technology is considered, mobile learning, with a blended design of technology, pedagogy and context can change the way we teach and learn. It can lead to a paradigm shift that will be for the benefit of all people.

1.1. What is Mobile Learning (Technology)?

From 2000 years, worldwide mobile devices were adopted by large masses of people because better, faster and cheap models of such devices can be reached by everyone easily. According to the statics explained by Gartner (July, 2014), tablets' sales quantity was 206.8 million in 2013, in 2014 it was 256.3 million and cell phones' sales quantity was 1.807.0 billion in 2013,

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in 2014 it was 1.862.8 billion. According to the search done by "Portio research" (2013) in 2012, 1.2 million people use mobile applications all over the World and in 2017 it is assumed that number will be 4.4 million. When these statistics are considered, it seems that mobile devices and applications are used by people from all over the world.

Mobile learning is a kind of learning which offers to learners independent of the time and place. Many definitions have been made of what m-learning is, and those definitions have lost their validity in a short time due to the rapid development of mobile technologies. For that reason, we handled only commonly used and contemporary definitions in the field literature. According to Hidayat and Utomo (2014) m- learning can be defined as a service that gives general information electronically to the learner. They can provide the educational content which helps the achievement of knowledge without question the location and time. Mobile learning is a part of e-learning activities (Viberg, 2015). The distinguishing aspect is that m-learning applies for portable small technology tools while e-learning uses all learning and teaching technologies, including mobile learning ones. M-learning applications generally reach to the learner via e-learning means.

Mobile technology is a new emerging technology in education. It is the peak of advanced technology for all parts of society (poor-rich; educated-uneducated) for its easy availability. Besides its accessibility, it is the personalization of a technological tool that can assist its owner free from border of time, place and communities. Although there is not an agreement among scholars on the definition of mobile learning because of the mobility of both technology and learning itself, Yamamoto (2013) manages to meet all aspects of mobile learning in her mobile learning definition. For her, mobile learning is not just a means of supplying the learners with barrier-free accessibility of required information, but it is also a way of enlightenment that can be presented ''without breaking apart from life''.

Besides the ambiguity of definition, there is also a disagreement on the technologies that can be categorized as mobile learning technology. According to UNESCO (2013), the tools that enables mobile learning and teaching are 'mobile phones, tablet computers, e-readers, portable audio players and handheld gaming consoles' Netbooks and laptops can also be added to this category.

Mobile learning technologies have some common aspects as portability, small size, interactivity and ubiquity. Mentioned features make these devices more essential. Regardless of the model of the learning technology, it is widely used all around the world, which sheds lights on its tendency for becoming a convenient means of learning/ teaching in distance education. When distance learners are taken into consideration, the suitability of this technology becomes more apparent in that distance learners are formal ones whose settings are their homes, office, a jungle or top of a mountain. Whatever the setting is, portable internet-connected devices enable them to learn, teach, share, communicate and socialize at any time the way they want.

Mobile learning technologies have a promising future if they are properly integrated into the current system or if the system undergoes some critical changes to be suitable for the implementation of this technology. The integration of m-learning requires delicate pedagogical design for the benefit of the learners. To make good use of the applications provided by m-learning tools, the user should plan his/ her learning activities beforehand. A learner with a high degree of motivation can easily plan and organize learning activities. But the main requirement for the benefit of both the learner and the applications is the ability to use the mobile learning technology properly and effectively. A learner with required skills and certain strategies can benefit from the applications voluminously and share content and resources in a self-determined manner (Brown & Mbati, 2015). We think that if the distance learner has self-control and self-regulation abilities with required skills, he/ she will get the most out of the mobile learning technologies.

1.2. The Benefits of Mobile Learning

Mobile learning devices are portable and have the affordance to connect to the internet whenever needed. A travelling distance learner can benefit from that technology without interrupting his / her journey (on the condition that internet is provided). Thus, being able to connect to the internet is crucial while using one of mobile learning devises. McQuiggan (2015) indicates that having a connection to internet requires internet capability that allows the user to access new content on demand. In addition to the users-on-the go, disadvantaged and disabled learners can also take advantage from this technology to overcome the distance, not being able to attend to the normal courses and poverty because learners at far distance don't manage to come and attend regular courses provided by the state for them. Furthermore, disabled learner can learn and socialize via their mobile devices without taking the risk of being injured or troubled by getting out of their safety places.

While using m-learning technology, a user plans, organize, carries out and evaluates his learning because he/ she is the controller of mobile-based activities. Thus, the learner is not a passive person who takes the required information but he/ she is the person who uses cognitive and mega-cognitive abilities to achieve the task. So, the user improves his/ her higher-ordered thinking skills (McQuiggan, 2015).

The user doesn't have to be constrained to certain environment to learn effectively. Learning in informal settings can contribute by allowing the individual to make use of personal learning styles and opportunities presented by the environment, including social and technical factors (Viberg, 2015). The learner can choose any setting real or virtual that fosters his/ her learning and thinking abilities from the lake side to a virtual space craft. The personalization of leaning environment can motivate the student and increase the outcomes of distance education through m-learning tools.

1.3. The Challenges of Mobile Learning

The first challenge of mobile learning technology and other technologies is technological determinism. Although technology is an important factor in the changing society, it is not a sole determinant (Kirkwood, 2014). Social changes stem from many evolving factors just one of which is technology. Placing technology and thus mobile learning technology in the centre lessons the expected outcomes for the users' benefit. Thus, m-learning technology is just a tool that may create more meaningful means to teach and learn at distance.

Designing of m-learning applications is another task that needs professional skills and strategies. The way either converting the context into the technology or changing the current system (not innovation) for the usefulness of the m-learning tools determines the success of the learners. The blending of pedagogy, technology and context in accordance with the individuals' aspects needs a special care and designing. According to Viberg (2015), a system designer is to observe ten vital rules during designing mobile learning,: Cost, system usability, choice of technology, roles, equipment management, support for teachers, administration, collaboration services or application and security issue.

After creating a prospering design, another problem appears: Technology literacy of teachers and students. ''Requirement of fluency in the authoring tools for mobile learning systems'' has the utmost importance (Setirek &Tanrikulu, 2015). However successful the applications are, if the instructors and students aren't excelled in using this technology, achievement of the system is not even a matter of discussion. Digital literacy, unfortunately, is a challenge both for teachers and learners (Brown & Mbati, 2015).

The prejudice and attitudes against technology is another problem. Although people are tend to be willing to learn new information, as to technology and its acceptance, they may reject or be suspicious of it just because either they don't know how to use it or they think they don't need it (Turan and Haşit, 2014, p.1). It is essential to identify prejudice and attitude and convince the learner about the practicality and benefit of the new technology (Joo & Kim, 2016, p.615).

1.4. Review Studies Related to m-learning

Three previous literature reviews studied research trends in mobile learning. Wu, Wu, Chen, Kao, Lin and Huang (2012) reviewed 164 studies from 2003 to 2010 on mobile learning. They reviewed the literature systematically and provided an extensive analysis. They found that the most studies of mobile learning focus on effectiveness, then mobile learning system design. They explained that researchers used mostly surveys and experiments as research methods. Moreover, mobile phones and personal digital assistants are the most widely used devices for m-learning but they stated that these may be displaced by emerging technologies. Besides, it is reported that the most highly-cited articles are about mobile learning system design and system effectiveness.

Hwang and Tsai (2011) reviewed journals in the Social Science Citation Index (SSCI) database from 2001 to 2010, selecting 154 articles on mobile learning. They searched the number of articles published, research sample groups, research learning domains, and country of origin. They found that higher education students were the most frequent research populations, then elementary school students and high school students. They indicated that the most studies weren't about any particular learning domain. Studies on m-learning investigated the motivation, perceptions and attitudes of students toward m- learning. Lastly, they stated that articles were written by the authors mostly from USA, UK, and Taiwan.

The study done by Hung and Zhang (2011) investigated the trends of articles in m-learning using text mining techniques. 119 articles from the SSCI database were analyzed. In this study, it is reported that m-learning articles enhanced from 8 in 2003 to 36 in 2008 and Taiwan is the most productive country about m-learning.
The previous studies submit crucial issues related to m-learning. However, m-learning is liable to continuous change with developments in technology. There is a need for contemporary studies about mobile learning due to the rapid development of mobile technologies. Moreover, those studies didn't mention research purposes and methods of search articles. This study provides literature review method in examining trends in mobile learning studies.

1.5. The Statement of the Research Problem

Mobile learning is one of the important topics of educational applications for new technologies and there have been many studies on it. Although m-learning is a very crucial topic for the educational environments, there isn't update review studies on m-learning. There is a need to investigate the m-learning field to be able to understand and interpret the new issues. The purpose of the study is to summarize the research findings in the literature by employing content analysis. Consequently, the studies published between 2013 and 2017 were included in the content of this study. This research can ensure an understating for researchers and educators into research trends in mobile learning.

2. METHOD

This review study aims to examine the current research literature in *mobile learning* and *distance education* for the years 2013 to 2017 in a context of higher education. Therefore, the authors found 11 research articles published during that time in 8 prominent peer-reviewed research journals. The research journals in which the articles selected are as below; (1) *TOJDE,* (2) *Learning Media and Technology*, (3) *Computers in Human Behavior*, (4) *Procedia- Social and Behavioral Sciences*, (5) *IJEDICT*, (6) *Engineering Science and Technology, an International Journal* (7) *Educational Technology, Research and Development* and (8) *the African Journal of Information System*. In particular, this review intends to address the following broadly focused research question: "What are the research purposes, methodologies, and outcomes addressed in current mobile learning studies?"

2.1. The Procedure of the Research

The articles included in this review were selected through a comprehensive search of publicly available literature, mostly through manual electronic searches of the following database: *EBSCO Discovery Service.* The database was accessed through the Anadolu University library network. Throughout the searches the keywords "*mobile learning*" and "*distance education*" were typed. Also while searching the related articles, the results were specified according to their publication years (between 2013 and 2017).

After a review of the literature and previous reviews, articles for this review were selected according to the following criteria: (a) the article was published between 2013 and 2017, (b) the article was published in English, (c) the article contained some discussion of the methodology used in order to obtain the data, and (d) the article related to mobile learning in higher education. Based on the criteria, 11 studies from 8 prominent peer-reviewed research journals were identified as eligible for the review and were comprehensively analyzed by three authors. The reference list of these articles and their coding as below (see Table 1):

Table 1. Codes of Articles and Their References

Codes of Articles	References
A1	Kabir, F. S., & Kadage, A. T. (2017). ICTs and Educational Development: The Utilization of Mobile Phones in Distance Education in Nigeria. *Turkish Online Journal of Distance Education, 18*(1), 63-76.
A2	Viberg, O., & Grönlund, Å. (2017). Understanding students' learning practices: challenges for design and integration of mobile technology into distance education. *Learning, Media and Technology*, *42*(3), 357-377.
A3	Sarrab, M., Elbasir, M., & Alnaeli, S. (2016). Towards a quality model of technical aspects for mobile learning services: An empirical investigation. *Computers in Human Behavior*, *55*, 100-112.
A4	Alrasheedi, M., & Capretz, L. F. (2015). An empirical study of critical success factors of mobile learning platform from the perspective of instructors. *Procedia-Social and Behavioral Sciences*, *176*, 211-219.
A5	Tagoe, M., & Abakah, E. (2014). Determining distance education students' readiness for mobile learning at University of Ghana using the Theory of Planned Behavior. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, *10*(1), 91.
A6	Almaiah, M. A., Jalil, M. A.& Man, M. (2016). Empirical investigation to explore factors that achieve high quality of mobile learning system based on students' perspectives. *Engineering Science and Technology, an International Journal*, *19*(3), 1314-1320.
A7	Joo, Y. J., Kim, N., & Kim, N. H. (2016). Factors predicting online university students' use of a mobile learning management system (m-LMS). *Educational Technology Research and Development*, *64*(4), 611-630.

A8	Adedoja, G., Adelore, O., Egbokhare, F., & Oluleye, A. (2013). Learners' acceptance of the use of mobile phones to deliver tutorials in a distance learning context: A case study at the University of Ibadan. *The African Journal of Information Systems, 5*(3), 3.
A9	Briz-Ponce, L., Pereira, A., Carvalho, L., Juanes-Méndez, J. A., & García-Peñalvo, F. J. (2017). Learning with mobile technologies–Students' behavior. *Computers in Human Behavior, 72*, 612-620.
A10	Ozan, Ö. (2013). Scaffolding in connectivist mobile learning environment. *Turkish Online Journal of Distance Education*, *14*(2), 14-55.
A11	Setirek, A. C., & Tanrikulu, Z. (2015). Significant Developmental Factors that can Affect the Sustainability of Mobile Learning. *Procedia-Social and Behavioral Sciences*, *191*, 2089-2096.

2.2. The Data Analysis

For each article, the abstract and the methods section were read to guarantee the article met the presence criteria for this study by the researchers through the data analysis. the researchers checked whether there was a method section in each article. If there was no methods section, the article was scanned for any indication of a methodology. Then, each article was coded as to its research methodology: quantitative, qualitative, or mixed. An article was named qualitative if the data collected were qualitative in nature; or the data were in narrative form without using statistics or quantitative data Moreover, an article could be named as quantitative: if there was word *quantitative* in the abstract, methods, or data-collection section; or/and the data collected contained any quantitative data or reported using any quantitative method. Finally, an article was coded as mixed methods: if the data were gathered from both quantitative and qualitative sources; and the data for both the qualitative and quantitative sources were reported in the results section (Creswell, 2009).

The methodologies used in the articles were coded separately according to the criteria above by each researcher for the reliability of the analysis (see Figure 1). Furthermore, each researcher analyzed the articles whether there were any common themes applied. Each of the authors coded separately the research topics applied in the articles; after then a common framework for the research topics of the articles was drawn (see Figure 2).

3. RESULTS

The result of the analysis showed that the methods applied in more than a half of the articles (6/11) were quantitative (A4, A5, A6, A7, A9 and A11). All of these quantitative researches utilized questionnaires in order to collect the data. Only two of the articles preferred to use a mixed methodology throughout their research (A8 and A10). Moreover, a few of the studies (3/11) applied qualitative methodologies through their research (A1, A2 and A 3).

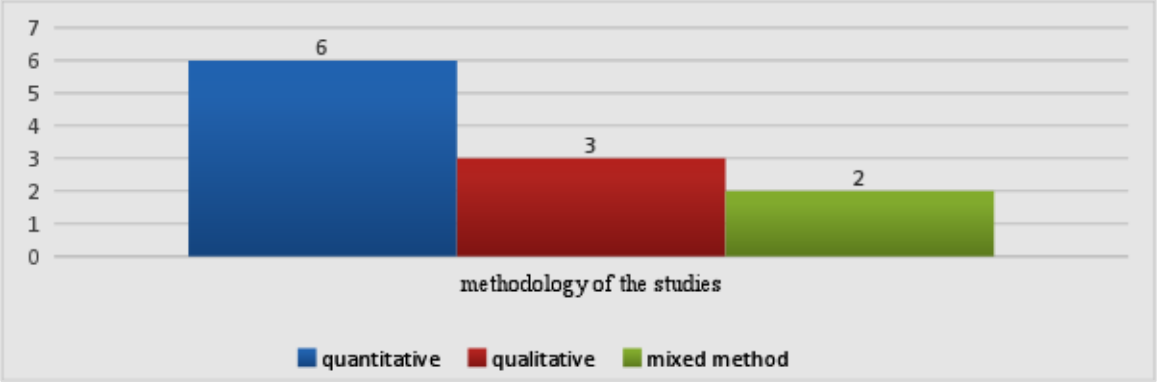

Figure 1. Methods Applied in the Articles

It was also noticed throughout the analysis of the topic that some research topics are popular in mobile learning research area. These popular research topics are learners' or educators' perceptions of m-learning and mobile technologies, quality issues of m-learning, students' acceptance of m- learning, review of mobile learning, connectivist m-learning, and sustainability of m-learning.

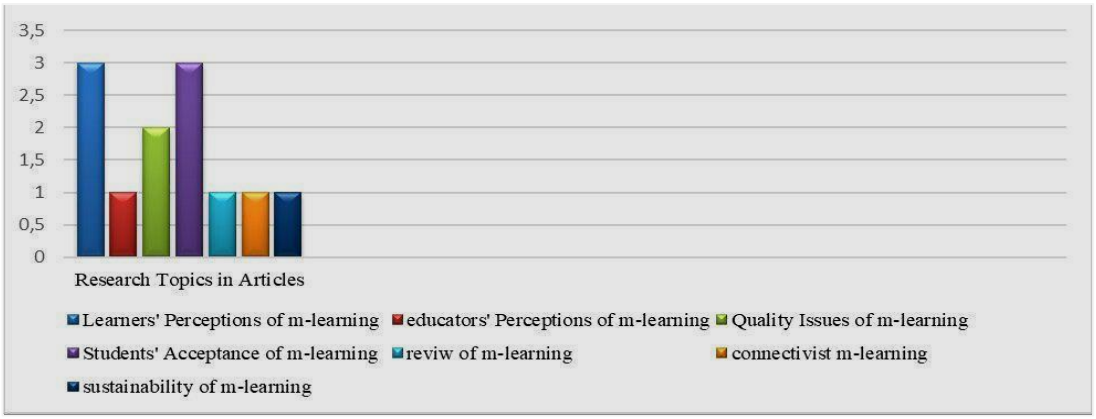

Figure 2. Research Topics in Articles

Some articles especially concentrated on either learners' or educators' perceptions of and/ or beliefs about mobile technologies and m-learning (A2, A4, A5 and A6). These studies are: how the language learners perceive mobile technologies-in- practice facilitate their language learning (Viberg and Grönlund, 2017); Tagoe and Abakah (2014) investigated how university students' beliefs influenced their readiness for m-learning using the Theory of Planned Behaviour (TPB); Almaiah, Jalil, and Man (2016) tried to explore quality factors for mobile learning system according to views of 392 University students; which various factors are thought to effect the success of mobile learning from the perspective of instructors (Alrasheedi and Capretz, 2015).

On the other hand, two articles (A3 and A6) focused on quality issues of mobile learning from different perspectives. First, Almaiah, Jalil, and Man (2016) proposed that in order to understand how to best exploit and use the mobile learning system for learning in universities,

the first step is to understand the students' perspectives and perceptions of the mobile learning system. For this reason, in the study they proposed and tested three frameworks for achieving high quality mobile learning systems according to students' perceptions. Then, Sarrab, Elbasir and Alnaeli (2016) put forward a model for the adoption of a complete and well-defined set of technical quality aspects for mobile learning development and their adoption in the education environment. Their proposed model captures most abstract and generic technical aspects of mobile learning service quality, including availability, fast response times, flexibility, scalability, usability, maintainability, functionality, reliability, connectivity, performance, user interface and security. The researchers tested this model via 4 different widely used M-learning platforms.

Also, the analysis of the articles displayed that three studies (A7, A8 and A9) examined students' acceptance of mobile technologies and mobile learning using *the Technology Acceptance Model* (TAM). For instance, Joo, Kim and Kim (2016) investigated which factors influence online university learners' actual usage of a mobile learning management system (m-LMS) via applying questionnaires to them. Furthermore, Adedoja and her colleagues' study (2013) focused on students' acceptance of mobile phones for learning purposes within a project. In this project the researchers aimed to support and engage distance learners by using mobile phones for distance learning lessons, rather than using mobile technology only for communicating information or creating access to learning resources. Finally, Briz-Ponce and her colleagues (2017) studied what kind of factors that could have influence in students' behaviour using mobile technologies for learning, which factors will contribute to make institutions or universities promote their acceptance of technology and improve the needed resources to succeed a better quality in education by applying a survey which theoretically based on TAM (*Technology Acceptance Model).*

Unlikely, some articles emphasized different aspects of mobile learning research area (A1, A10 and A11). First, Kabir and Kadage (2017) in their study highlighted the vitality of implementation mobile learning in Nigeria by showing a number of successful Mobile Learning initiatives through a review. Then, Ozan (2013) brought a connectivist and Vygoskian perspective to m-learning research; and, she investigated how to provide scaffolding to the learners in connectivist mobile learning environment: (a) to learn in a networked learning environment, (b) to manage their networked learning process, (c) to interact in a networked society, and (d) to use the tools belonging to the network society. In conclusion, Setirek and Tanrıkulu (2014) explored factors influencing m-learning sustainability and identified the present design and development position of mobile learning (for detailed illustration see Table 2).

Table 2. Purpose, Methodology and Outcomes of the Articles

Article	Purpose of the study	Methodology of the study	Research outcomes
A1	To highlight the vitality of application of mobile learning in Nigeria by illustrating a number of successful Mobile Learning examples	Qualitative (review)	Even if its high potential of use in educational settings, there are some challenges in order to sustain and succeed in the implementation of mobile learning in Nigeria.
A2	To investigate how students use mobile technologies and how they perceive that these technologies-in-use help their language learning.	Qualitative/ interpretive (interviews/ structurational analysis)	Designs for mobile applications need to consider that (i) students use their private mobile technologies frequently when conducting self-initiated learning tasks, (ii) students' mobile technologies in-practice are important, and course designers should design materials and tools for such use practices, and (iii) students prefer to work on their own due to the limited time they want to devote to their learning.
A3	To propose a model for the adoption of a complete and well-defined set of technical quality aspects for mobile learning development and their acceptance to use in the learning environment	Qualitative (case study)	The presented case studies point to a set of contextual technical quality factors that influence the choice of mobile learning application. The findings also indicate that there are causal relationships between learner satisfaction and the overall proposed model technical quality aspects. The model has a positive impact on overall learning process outcomes by evaluating the technical aspects while maintaining the quality of mobile learning delivered.
A4	To present a research model for evaluating how and to what extent different factors affect educators' views on the use of mobile learning at universities	Quantitative (questionnaires)	Interestingly most of the instructor population was found to be technically savvy and very comfortable with owing and using advanced mobile phone devices. The use of internet was also universal and a majority of the population accessed internet from their mobile devices.
A5	To explain how learners' beliefs influenced learners' intention to accept mobile learning and determine their mobile learning readiness using the Theory of Planned Behavior (TPB)	Quantitative (questionnaires)	The study found that there was high penetration of mobile phones among the students. Young students were more likely to have smart phones that their older colleagues. The results provide valuable information on ways to implement m-learning programs incorporating the voice and needs of students
A6	To explore quality factors for mobile learning systems based on students' perspectives via proposing and testing three frameworks	Quantitative (questionnaires)	Overall, the results of this study offer an empirical support for identifying the guidelines that contribute to design and development of high quality mobile learning systems based on students' perceptions.

A7	To analysewhich factors effect online university learners' actual usage of a mobile learning management system (m-LMS) through a structural model	Quantitative (questionnaires)	Results showed that perceived ease of use predicted perceived usefulness, but expectation-confirmation was not related to perceived usefulness. Perceived usefulness and expectation-confirmation predicted satisfaction. Perceived usefulness and satisfaction predicted continuance intention, but perceived ease of use was not related to continuance intention. Continuance intention predicted actual usage of m-LMS.
A8	To focus on students' adoption of mobile phones for learning purposes within a project that aims to support and engage distance education learners by using mobile phones for distance learning lessons, rather than using technology only for communicating information or creating access to learning resources.	Mixed Method (questionnaires, open ended questions, focus group discussions)	The evidence gathered confirms that the mobile tutorials enhanced teaching and learning. However, it also highlights several preconditions for successful implementation, including providing technical support to students, using a well-designed interface, improving student literacy, controlling the messaging and data costs faced by students, and improving the capacity of course developers and technical staff.
A9	To research what kind of factors and drivers that could influence students' behavior for the use of mobile technologies for learning	Quantitative (questionnaires)	Social Influence raised to be an important factor towards the Attitude and Behavioural Intention of using Mobile Learning. In addition, the student's ease of perception seems to be the main factor affecting the Social Influence (31.9%) and the reliability for recommending this technology for learning was the main factor that affected the Behavioural Intention. Findings provide support for Technology Acceptance Model.
A10	To investigate how to provide scaffolding to the learners in connectivist mobile learning environment	Mixed-method (holistic single-case study and descriptive statistics)	Learning moves into an informal, networked, technology-enabled arena**.** Generally, participants had positive perceptions toward the mobile connectivist scaffolding activities that support them and allowed them to share their knowledge in authentic
A11	To investigate which factors effect mobile learning sustainability and identify the current design and development status of mobile learning.	Quantitative (questionnaires)	The study may provide guidelines to assist m-learning initiatives in sustaining an effective mobile learning in terms of design and development

4. CONCLUSION, DISCUSSION and SUGGESTIONS

Three previous literature review-based studies (Hwang and Tsai, 2011; Hung and Zhang, 2011; Wu and others, 2012) on the use of mobile learning was provided precious results. However, they didn't analyze the most used research purposes. This study reviewed the literature to provide an extensive analysis of past studies from 2013 to 2017 and explained mostly used purposes on articles. The results of this study can be summarized as follows. The most popular topics are learners' perceptions of mobile technologies and m-learning and

students' acceptance of m-learning. On the other hand, there are two articles concentrated on quality issues of mobile learning from different perspectives. The others emphasized different aspects of mobile learning research area.

Two previous literature review-based studies (Hwang and Tsai, 2011; Hung and Zhang, 2011) didn't include the search methods of the studies into their research. However the review study was done by Wu and others (2012) found that among the 164 studies, surveys were the most used research method (50 studies), experimental research methods (38) were followed. It is stated that quantitative approaches were preferred by the researchers. The result of the analysis of this study showed that the methods applied in more than a half of the articles were quantitative. These researches utilized questionnaires in order to collect the data. Besides, a few of the studies applied qualitative methodologies through their research. However, only two of the articles preferred to use a mixed methodology throughout their research. It supports previous research (Wu and others, 2012) as a result of the more frequent use of quantitative research. Referring to experimental studies in the previous article (Wu and others, 2012) is a difference between two articles. This difference might be welded from the number of articles included in the study and the fast developments in the mobile technologies.

Considering the results of this study, some inferences can be advised to the future researches: In this study, only the aims and methods of the researches were investigated.

- In subsequent studies, the different ways of researches can be examined. For example, the most frequently used keywords and the profile of participants involved in the researches can be analyzed.
- This study was conducted between 2013-2017 years. A review of the last 10 years will provide a more detailed overview of the relevant topic.
- Web of Science or SCOPUS which is the world's largest database can be used instead of EBSCO.

Mobil Öğrenmede Güncel Çalışmalara Yönelik İçerik Analizi

Özet

Teknolojik gelişmeler eğitim sistemlerini etkilemektedir. Eğitim ortamlarının okullarla sınırlı olmadığı anlaşılmıştır. Bilgisayar kullanımı ve eğitim sistemlerinde internet ile bilgiye ulaşma yolları değişmiştir ve mobil öğrenme gibi kavramlar ortaya çıkmıştır. Son yıllarda, mobil öğrenme (m-öğrenme) uzaktan eğitimin önemli bir bileşeni olmuştur. Bu nedenle bu çalışmanın amacı literatür taraması yaparak literatürdeki araştırma bulgularını özetlemektir. Bu kapsamda, 2013 ile 2017 yılları arasında yayınlanan araştırmalar bu çalışmanın içeriğine dahil edilmiştir. Araştırma süresince, 8 önde gelen, hakemli araştırma dergisinde yayınlanan 11 araştırma makalesi incelenmiştir. Bu araştırmaların amaçları, metodolojileri ve sonuçları açıklanmıştır. Mobil öğrenme ile ilgili araştırma eğilimlerini ortaya çıkarmaya çalışması açısından bu çalışmanın önemli olduğu söylenilebilir.

Anahtar Kelimeler: Mobil öğrenme, uzaktan eğitim, teknoloji, mobil teknoloji.

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