



كلية التربية

كلية معتمدة من الهيئة القومية لضمان جودة التعليم

إدارة: البحوث والنشر العلمي (المجلة العلمية)

=====

Blended Learning Competencies: Their relationship to English Majors' Attitude towards Blended Learning and their Academic Achievement Level

Submitted by:

***Dr. Hanan Ahmad Abdel-Hafez Mahmoud**

Associate Professor of Curricula and Methods of Teaching English-

Faculty of Education- Assuit University.

﴿ المجلد الثامن والثلاثون - العدد الأول - يناير ٢٠٢٢ م ﴾

http://www.aun.edu.eg/faculty_education/arabic

ملخص البحث

استهدف البحث الحالي استكشاف مستوي الطلاب المتخصصين في اللغة الانجليزية في كفايات التعلم المدمج ومستوي اتجاههم نحو هذه الكفايات. تم أيضا استكشاف علاقه بين كل من كفايات التعلم المدمج والاتجاه نحوه وكذلك بين تلك الكفايات والتحصيل الاكاديمي لدي الطلاب عينة البحث. تم تطبيق كل من استبيان كفايات التعلم المدمج و مقياس الاتجاه نحو التعلم المدمج علي ٨٠ طالب وطالبه من طلاب الفرقة الثالثه تخصص لغه انجليزيه. أظهرت النتائج أن الطلاب مجموعة البحث قد أظهروا مستوي منخفضا في كفايات التعلم المدمج بينما حققوا مستوي متوسطا في الاتجاه نحو التعلم المدمج. أظهرت النتائج أيضا وجودعلاقه ايجابية داله احصائيا بين درجات الطلاب في استبيان كفايات التعلم المدمج ومستوي تحصيلهم الاكاديمي وكذلك بين درجاتهم في مقياس الاتجاه نحو التعلم المدمج وتحصيلهم الاكاديمي. وقد اكد البحث علي ضرورة امداد الطلاب بالكفايات اللازمه للتعلم بكفاءه في بيئه مدمجه حيث انه ثبت ضرورتها لتنمية اتجاه ايجابي نحو التعلم المدمج وكذلك حيث انها أظهرت علاقه ارتباطيه موجبه بالتحصيل الاكاديمي لدي الطلاب مجموعة البحث.

الكلمات المفتاحية:

كفايات التعلم المدمج- الاتجاه نحو التعلم المدمج- التحصيل الاكاديمي

Abstract

The present research aimed at investigating English majors' level in blended learning (BL) competencies and their attitude level towards them. Correlation between (BL) competencies and attitude towards them together with correlation between BL competencies and research group students' academic achievement have also been explored. The research also investigated correlation between English majors' attitude towards BL and their academic achievement. The BL Competencies Questionnaire and the BL Attitude Scale were administered to a group of eighty Faculty of Education third year English majors. Analyzing results revealed that research group students showed a low level of BL competencies. Results showed also that students achieved an average level on attitude towards BL. A statistically significant positive correlation was also found between research group students' BL competencies and their attitude towards BL. Results also revealed a statistically significant positive correlation between students' scores on the BL Competencies Questionnaire and their academic achievement level and between students' scores on the BL Attitude Scale and their academic achievement. The research stressed the necessity of providing students with e-competencies required for learning efficiently in a blended environment since proved necessary for developing positive attitudes towards BL and showed a significant positive correlation with research group students' academic achievement.

Key Words: Blended Learning Competencies- Blended Learning Competencies- Academic Achievement

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Introduction:

The international changes that affect our universities today require guidance and consensus on specifying teachers' and students' roles in virtual learning environments together with related competencies. Changes in teachers and learners' roles are not explicitly called for as they often appear only indirectly. Though, it is essential to make progress in shedding light on the organizational, instructional and technological roles required for teaching and learning in this new educational model. Hence, a great effort should be done to enhance teachers' education and students' learning (Progress Report, European Commission for Implementation of Education and Training, ٢٠١٠).

One of the things that has affected the delivery of education to, a great extent, is the use of technology and internet that added values to the educational process. Many studies have stressed the importance of technology in different areas including the educational sector (Lea et al., ٢٠٠١, Lazar, ٢٠١٥; Ghavifker & Rosdy, ٢٠١٥). Technology has played a significant role in making teaching and learning more effective and resourceful (Girgurovic, ٢٠١٠). Using technology in education has started after the appearance of home computers in ١٩٨٠s. Over the last two decades, computer technology has developed in a very amazing way and digitalization wave has been raised with the appearance of the internet, which is recently used in business, online bank transactions, connecting socially with people and e-learning (Kraut, et al., ١٩٩٩). This technology revolution has brought marked transformation in the education field across the globe. Besides, the newest generation is familiar with digital technology and uses it in various fields of life. Recently, an increase in the use of internet in daily life by everyone including teachers and learners has been observed (Anderson & TraCey,

٢٠٠١). In the last decade, e-learning has become very popular and has been widely recognized as a means of implementing higher education (UNESCO, ٢٠٠٩). The reasons why it is important to support teachers and students in a technology mediated learning environment vary from practical reasons such as reducing dropout rates, to theoretical ones as reducing students' isolation and to ethical reasons such as a commitment to help students succeed (Lentell, ٢٠٠٣; Simpson, ٢٠٠٢).

E-Learning is becoming more prevalent than ever with the emergence of new technologies and inventions in teaching and learning. Becoming an experienced e- learner and owning advanced skills in the use of technology requires possessing necessary competencies besides having positive attitudes towards technological instruments. Teachers also need to be updated with necessary e- competences and should use information and communication technologies effectively in all stages of teaching and in facilitating and evaluating learners' work (Gulbahar & Kalelioglu, ٢٠١٥).

The development of IT and computer has been strongly realized in the educational sector leading to a major change in the local educational system. Teaching and learning environment is encompassing a number of innovations some of which include using technology in instruction. Technology provides new opportunities for teaching and learning including; the ability to; customize instructions for each student, evaluate students' progress with real-time data, provide instant feedback and modify instruction based on student's learning needs. As the internet promotes remote communication, assures transition of all kinds of information required for learning and involves systems for testing and evaluating gained knowledge, the interest to integrate e-learning in the students' learning environment is getting to be more prominent (BERTEA, ٢٠٠٩).

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

In the past few years, the world has witnessed a rapid transformation in the patterns of university and pre-university education. E-learning has become an essential mode of education that goes alongside with traditional face-to-face education. In some cases, the e-learning became the only way of teaching, in others it is combined with the traditional face-to-face mode which is referred to as blended learning. Recently, particularly during the outbreak of Corona virus Covid ١٩ pandemic, the reliance on blended-learning has increased significantly and has become an irreplaceable strategic choice. Thus, it has become a necessity for university members to gain mastery of the required skills and competencies, for both traditional face-to-face or e-learning education.

Blended learning is a method that allows teachers to transfer learning to students. The main goal of BL is providing individualized and equitable learning experiences for all students. It allows each student to have control over place, time and way of learning and also eliminates barriers to equity. This recent pedagogical approach has been quickly adopted though it goes through a set of procedures and its acceptance to be effective in teaching and learning faces challenges especially in the developing world. (Kintu,Zhu & Kagambe, ٢٠١٧).

In order to accomplish any work role adequately, encompassing e-tutors and students, an individual needs to demonstrate some specified competencies, which include skills, knowledge and attitudes. Recently, a more comprehensive understanding of learners' developing roles and competencies required for e- learning has been developed. Literature revealed that a different set of competencies are essential for e- learning (Barbour et al., ٢٠١٢; Kennedy & Archambault, ٢٠١٢). The use of the

term competencies rather than skills has become an international trend. Such competencies can be applied in different environmental and instructional contexts (Powell et al., ٢٠١٤). Institutions are progressively interested in implementing blended learning in their curriculums, though it brings challenges for students and teachers. Students need to shift to learn in both face-to-face and online environments, which is not an easy task. Although there is still much to be done regarding the analysis of the needs of novice online student-teachers, this research might yield interesting conclusions regarding the competencies, skills and attitudes needed to learn successfully in a blended learning environment and to achieve an easy transition to the new learning environment.

The success of online instruction and learning depends greatly on teachers and learners' attitudes towards online learning (VanDen Berg, et al., ٢٠٠٦; Wasserman & Migdal, ٢٠١٩). An attitude is a hypothetical form originated by psychologists for clarifying any point of interest. It is the perception of anything based upon mental, emotional and social experience (Schwarz, ٢٠٠٧). Attitude is a very significant personality trait that influences individuals' performance. Various factors influence students' attitudes towards online education as; knowledge, willingness to learn, perceived ease of performance, beliefs and surrounding environment (Papp, ١٩٩٨; Nair & Das, ٢٠١٢). Gardner, et al., (١٩٩٣) added that customs, values and social setting can also influence an individual's attitudes. It has been recognized that students who are more familiar with internet-based technology, have positive attitudes towards e-learning (Uzunboylu, ٢٠٠٧). Kalanda (٢٠٠٥) maintained that students' attitude towards technology might be influenced by teaching methods teachers use.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

As students' progress in their learning, they enjoy greater independence and become more responsible for their learning. Self-disciplined students can progress at their own pace of learning and are expected to be high achievers. Active participation that makes students feel more involved and understand better learning quality is crucial for students to do well in blended courses (Owston et al., ٢٠١٣; Smyth et al., ٢٠١٢).

To sum up, it might be useful to assess students' level of BL competencies and their attitudes towards blended learning together with their academic achievement level in order to identify blended learning competencies necessary for faculty of Education English majors to take advantages of BL for equity and personalization.

Background of the Research Problem:

Before the start of Covid-١٩ pandemic, Egyptian universities were not used to having lectures and assignments online. Recently, many countries including Egypt have shifted to face- to -face and online education (BL). This sudden shift in the educational process has caused positive and negative attitudes towards this new teaching /learning approach from both students and instructors (Agung, et al., ٢٠٢٠; Febrianto, et al., ٢٠٢٠). However, neither students nor instructors have received enough training on how to use online education platforms as Moodle, Zoom Microsoft Teams, Google Classroom and Microsoft Forms (Mahfouz & Salam, ٢٠٢١).

Many teachers hold the view that traditional methods of teaching are not sufficient for students nowadays (Enayati et al., ٢٠١٢). Online education is an electronically supported learning method that is usually practiced outside the traditional classroom where students get access to the curriculum, finish and submit assignments and take tests online (Sangwan, et al., ٢٠٢١). Integrating technology can help in providing better learning for students, consequently, teachers' use of technology cannot be ignored and computer literacy has become an essential aspect for teacher's as well as learner's competence (Lea, et al., ٢٠٠١; Salmon, ٢٠١١; Costley, ٢٠١٤). Hofmann (٢٠١٤) maintained that users who face difficulties with technology might lead them to an ultimate failure in using computer applications that might negatively affect their attitude towards e-learning. Moreover, it has been claimed that students generally memorize ٢٥-٦٠٪ of the learning material when learning online, though they memorize only ٨-١٠٪ of such material in traditional classroom, which implies that they might be able to learn faster online (Li & Lalani, ٢٠٢٠).

Sharing the notion that teacher's functions in virtual environments are in principle an extension and a transfer of functions needed for teaching in physical context, it seems clear that a change in environment nature requires new competencies at the part of teachers and students. E-tutors nowadays play very important role in the virtual learning environment and in the era of various web technologies. Though they play a critical role in the success of e-learning, instructors face many challenges teaching higher education students as learners lack competencies required for engagement in a BL environment. Requirements of online teaching and learning are not restricted only to a set of knowledge and experience, the challenges faced by teachers are closely related to the characteristics of online interaction and communication (Westera, ٢٠٠١; Williams ٢٠٠٣; Salmon, ٢٠٠٠).

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Reviewing literature revealed that effective online teaching/learning requires skills beyond those needed in a traditional classroom environment. Moreover, it has been found that lack of necessary e-learning competencies negatively affected students' attitudes towards BL as well as their academic achievement level. Determining the necessary BL-competencies and understanding the importance of these competencies is critical to the success of blended-learning method. As a consequence, effective blended learning requires that teachers and learners have both online and traditional teaching competencies or skills together with the ability to perfectly and strategically integrate both of them (Barbour et al., ٢٠١٢; Kennedy & Archambault, ٢٠١٢). Archambault et al., (٢٠١٤) stressed the necessity of implementing blended learning in pre-service experiences. Salmon (٢٠٠٣) advocated that successful online learning depends on e-teachers helping learners gain new competencies, realizing their potential and motivating them rather than simply focusing on mastering technology.

Literature revealed four main BL competencies; namely pedagogical, social and behavioral, managerial and organizational as well as technical and digital. Such competencies need to be approached and acquired by students in order to facilitate learning efficiently in a BL environment (Mcpherson & Nunes, ٢٠٠٤; Cox et al., ٢٠٠٠).

Throughout teaching using the blended learning approach, it has been noticed that students do not have a positive perception of online learning and prefer in-class learning. Meeting with students in face-to-face sessions revealed that they consider online learning sessions to be ineffective for different reasons. A vast majority of students complained

that they could not access the internet for technical as well as financial matters besides lack of live interaction with instructor and lack of classroom social environment. They also reported that they mostly feel nervous for being unable to complete class tasks on time due to their limited access to the internet. It has also been noticed that although students can get good grades in an online course and rise their overall score, their attitudes towards e-learning is slightly positive (Eraslan & Topkaya ٢٠١٧). According to Oxford Group report (٢٠١٣), ١٦% of learners had negative attitudes towards BL whereas ٢٦% of learners maintained that they would not complete their study using BL approach.

There has been little current research, conducted in Egypt, particularly at the university level. up to the researcher's knowledge, regarding student- teachers' preparation for learning in blended contexts and concerning providing them with necessary competencies. The current research focused on that weakness and thus attempted to shed light on these competencies with the aim of consistently identifying the ones much needed in a BL context, by faculty of education English majors, to help them learn effectively and achieve maximum required benefit. The present research inquired also about students' attitude towards blended learning and its relation to their academic achievement level and to blended learning competencies.

To conclude, since BL has already been seen as a substitute-learning model during the Corona virus pandemic and due to the shortage of the local studies on such model, it deemed necessary to measure level of BL competencies as well as academic achievement. together with attitudes towards BL at faculty of Education English majors.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Statement of the Problem:

The problem of the current research is demonstrated in the challenges and problems that faculty of Education English majors faced when learning via using blended learning approach as most of them were new to this type of teaching and learning. It was therefore necessary to measure students' level in blended learning competencies together with level of their attitude towards this type of learning as well as their academic achievement level based on being involved in a blended learning environment in order to specify the most needed BL competencies of English majors at faculty of Education.

Research Questions :

١. What is the level of faculty of Education English majors' in blended learning competencies?
٢. What is the level of faculty of Education English majors' attitude towards blended learning?
٣. What is the correlation between faculty of Education English majors' blended learning competencies and their attitude towards BL?
٤. What is the correlation between faculty of Education English majors' blended learning competencies and their academic achievement?
٥. What is the correlation between faculty of Education English majors' attitude towards blended learning and their academic achievement?

Research Objectives:

The present research has aimed at:

١. Specifying English majors' level of blended learning competencies.
٢. Specifying English majors' level of attitude towards blended learning.

٣. Determining the correlation between blended learning competencies and attitude towards BL at faculty of Education English majors.
٤. Determining the correlation between blended learning competencies and academic achievement at faculty of Education English majors.
٥. Specifying the correlation between faculty of Education English majors' attitude towards blended learning and their academic achievement.

Significance of the Research :

The present research might be significant in the following:

١. Designing a Blended Learning Competencies Questionnaire and a Blended Learning Attitude Scale.
٢. Stressing the significance of directing the attention to specify university students' level of blended learning competencies together with their attitude towards blended learning.
٣. Increasing university members understanding of which key competencies need to be acquired by students in order to help them achieve maximum benefit when being involved in a blended learning environment.
٤. Directing university staff and practitioners' attention to the necessity of developing students' ICT competencies necessary for e- learning.
٥. Directing university staff and practitioners' attention to the necessity of working on all e-competencies not just pedagogical ones as; technical, managerial and social competencies since they all proved to be essential for successful engagement in a blended learning environment.

Research Delimitations :

The present research was limited to the following:

١. Third year Faculty of Education English majors, Assuit university.
٢. Tools were administered in the ١st semester of the academic year ٢٠٢٠/٢٠٢١.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Research Terminology:

To facilitate reading and understanding the research, the following definitions were presented:

١. Blended Learning Competencies:

For the specific purposes of the present research, the term blended learning competencies refers to a set of knowledge, skills and capacities faculty of Education English majors need to have to engage successfully in a blended learning environment. They encompass pedagogical, managerial and organizational, social and behavioral, as well as technical and technological competencies. Each of these four main dimensions incorporates both environmental and personal competencies.

٢. Attitude:

According to RANI (٢٠١٦:٣٨) attitude refers to “different kinds of feelings towards e-resources such as; love, hate, anxiety, interest, and perception of the internet in life, in order to facilitate young children to express their views”.

In the light of this and for the specific purposes of the present research, attitude is used to refer to faculty of Education English majors’ positive and negative responses to being instructed by and involved in a blended learning environment. It includes their perception of the internet and feelings towards e-resources.

٣. Academic Achievement:

According to Tian and Sun (٢٠١٨) academic achievement refers to students’ achieved level of development throughout learning across a certain period of time under instructors’ guidance and based upon prior experiences in some aspects such as knowledge, skills, values and attitudes.

In this research, academic achievement is used to refer to the gathering of faculty of Education English majors' obtained scores at all academic subjects by the end of the semester.

Research Hypotheses:

١. Faculty of Education English majors achieve an average level of necessary blended learning competencies.
٢. Faculty of Education English majors achieve an average level of attitude towards blended learning.
٣. There is no statistically significant correlation between the scores of the research group on the questionnaire of blended learning competencies and their scores on the scale of attitude towards blended learning.
٤. There is no statistically significant correlation between the scores of the research group on the questionnaire of blended learning competencies and their academic achievement.
٥. There is no statistically significant correlation between the scores of the research group on the scale of attitude towards blended learning and their academic achievement.

Research Procedures:

To answer the research questions, the following procedures were adopted:

١. Reviewing literature in the field of blended learning competencies, attitude towards blended learning and academic achievement.
٢. Introducing theoretical background dealing with blended learning competencies, attitude towards blended learning and academic achievement.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

٣. Designing a list of blended learning competencies in its preliminary form in the light of literature review.
٤. Administering the list to jury members to check which ones are appropriate and which ones are not needed.
٥. Making suitable modifications in the list of competencies based on the jury's recommendations and suggestions, then setting the list in its final form.
٦. Designing a list of blended learning attitude statements in its preliminary form in the light of literature review and then administering the list to jury members to check which ones are appropriate and which ones are not needed if any. Then, making suitable modifications.
٧. Designing and validating the research instruments; blended learning competencies questionnaire and blended learning attitude scale. Some items and statements were modified or substituted and others were deleted. The jury members agreed that the final form of the blended learning questionnaire and the blended learning attitude scale were valid
٨. Piloting the questionnaire, and the scale on a small group of students to measure their validity and reliability.
٩. Selecting the research group from third year English majors faculty of Education, Assuit University.
١٠. Administering the blended learning competencies questionnaire and blended learning attitude scale online using (web-based survey tools).
١١. Analyzing and interpreting the results in the light of research hypotheses.
١٢. Providing recommendations in the light of the present research.

Theoretical Background and Review of Literature:

Blended Learning competencies:

In language instruction context, e-learning can be presented to learners in two main ways; learners can use it as an alternative to formal education according to their needs and interests, or it can be used as a complementary learning environment included in formal instruction as a way for enhancing it. Though e-learning has been used at the beginning to replace traditional teaching, it has been turned to be a significant supplement to formal education (Tallent-Runnel et al., ٢٠٠٦). In language learning, face-to-face instruction is supplemented by e-learning as learners receive their lessons in the classroom and then practice the same content online. Being combined with traditional learning, e-learning gives learners online educational tasks to carry out (Anderson, ٢٠٠٣). Learners are also provided with both printed and online course materials, which offers more practice opportunities and various audio-visual aids that allow them practice what they learn in the classroom.

BL is a strategic combination of online and in-person instruction. In these classrooms, students learn partly online with some control over time, place, path and speed. This form of teaching necessitates more than just the integration of classroom technology because it includes online learning as an element related to students' experience. For this reason, teachers and students should possess a broader skill set than they would need for the traditional classroom (Graham et al., ٢٠١٩).

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

In order to teach effectively using blended method, teachers need to integrate online and in-person teaching/learning activities strategically. However, this is not an easy task as both teaching methods require having specific skills and competencies. According to Sharim and Khlaif (٢٠١٠) ٧٥% of students and ٧٢% of teachers lack in the skills of utilizing ICT based learning materials required for using computer and internet applications that might accordingly cause failure in using e-learning and BL approaches. Therefore, in this new teaching and learning environments, new competencies have become required.

Integrating technology has been perceived as an extension of traditional classroom mediating synchronous face-to-face interactions. Blended learning needs a mix of competencies and skills from both traditional and online environments. It is not only about adding educational materials and documents through the internet, but it should also be linked to and maintained with the characteristics of learners and academic subjects (Reay, ٢٠٠٦). Graham et al., (٢٠١٩) maintained that literature showed no difference between skills needed for blended teaching and those needed for a totally online or technology-based traditional classroom. In the contrary to this, Wolf (٢٠٠٦) and Salmon (٢٠١١) maintained that there is a difference between skills needed for online teaching or learning and added that a good face-to-face instructor or learner does not necessarily be the same in an online environment.

Firdaus et al., (٢٠٢٠) define BL as “an approach to learning that is carried out face-to-face and online by utilizing (IT)” (p. ٤٨). Many researchers agreed that BL is a mixture of traditional classroom and online learning (Garrison & Kanuka, ٢٠٠٤; Wakefield et al., ٢٠٠٨). Finn and Bucci (٢٠٠٤) described BL as an effective combination of various learning techniques, technologies and delivery methods to meet learners’ communication, informational and knowledge sharing needs. Zaytoon (٢٠٠٥) points to BL model as being a type of learning and teaching where e-learning accompanies traditional learning because it uses e-learning tools including computers, e-lessons, lectures and training workshops. Such e-learning activities are held in real classrooms such as computer labs and smart classes where teachers meet with students face-to-face in a specified time. In BL sessions, the teacher conducts the teaching and learning process and directs students’ learning process while they always learn cooperatively with their peers. Therefore, this mixed type of learning is student centered which leads to further inquiry about necessary competencies needed for learning effectively in a blended environment.

There are various benefits of using a blended learning approach as; improving students’ engagement and learning outcomes since BL allows teachers to use instructional strategies that are not possible in traditional settings, providing more flexibility and access to learning experiences through extending learning beyond classroom confines, and increasing cost efficiency in terms of teachers and students money and time. Although these benefits can develop practices, they cannot be achieved by simply adding virtual space to already existing face-to-face instruction as BL is a strategic combination of online and face-to-face instruction. Teachers need to ensure that the virtual space should express and complete what happens in face-to-face environment (Graham, et al., ٢٠١٩).

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Because of the change in the focus of teaching approaches, the learning products of such approaches have different names as; goals, objectives and learning outcomes. Compared with competencies, learning objectives or outcomes are more specified measurable statements whereas competencies are more comprehensive as they cover many learning objectives or outcomes. According to Hartel and Foegeding (٢٠٠٤) “outcome is a very specific statement that describes exactly what a student will be able to do in some measurable way” while “competency is a general statement detailing the desired knowledge and skills of students graduating from our course or program” (p.٦٩).

The concept of competency has been used in many different ways. One approach views competency as a personal skill or ability related to the efficiency of behavior while the other approach considers competency as the strategic behavior related to the possibility of modifying performance according to context requirements (Eraut, ١٩٩٨).

Powell et al., (٢٠١٤) defined competency as individual implicit characteristic that is unintentionally related to high performance. Such characteristics encompass constant motives, features, self-concepts, principles, knowledge and skills that can be evaluated and differentiated. DESECO (٢٠٠٢) defined competency as a system of complex procedures involving knowledge, abilities and attitudes needed to successfully complete tasks. The main difference between competencies and roles is that competencies can be observed, measured and are task- based skills. Spector and Delateja (٢٠٠١) stated that competence refers to “the state of being well qualified to perform an activity, task or job function” (p.٢).

It has been maintained that e- instructors and learners should have more technological qualities and skills. Such qualities and skills systematically construct e-competencies for online teaching instructors and learners (David et al., ٢٠٠٧). Williams (٢٠٠٣) classified e-competences into; communication and interaction, instruction and learning, management and administration, and use of technology. Smith (٢٠٠٥) categorized e-competencies into three main categories; competencies needed before the course, competencies needed during the course, and competencies needed after the course.

Berge (١٩٩٥) maintained that online instructor is a facilitator whose major role is to model effective teaching and to deliver the e-content. He categorized e-competencies under four main dimensions; pedagogical, social, managerial and technical. Pedagogical dimension refers to interpersonal, communication and facilitation skills. One more important aspect of pedagogical role is providing students with quick opportune and accurate feedback as learners usually expect tutors to interfere to provide them feedback on their language production, learning as well as participation in the online environment. Matteucci et al., (٢٠١٠) maintained that teaching with feedback is more effective as it is important for online students to give them indication of their performance to make sure that they are working well.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Managerial dimension refers to the ability to use administrative and leadership skills. Learners need to make use of available tools such as, websites, platforms, e-mail messages and chat rooms to be sure that they have immediate and precise information so as to fulfill their work. They are also required to set objectives and to arrange their own learning (Paulsen, ١٩٩٥). On the other hand, social dimension includes communicating in a friendly, safe, supportive and motivating environment to facilitate learning whereas the technical dimension refers to technological and digital literacy and knowledge required to participate effectively in an e-environment.

Effective BL is about more than just technology and mastering of new tools, it is about considerate and intended planning and help provided by the teacher. It is centered around the strengths of face-to-face and e-learning and attempts to coordinate the two approaches with the aim of increasing the advantages of the two pedagogical models(Throne, ٢٠٠٣).

An e-learning environment is an interactive remote learning setting that uses information and communication in the educational process to implement a set of activities similar to traditional learning ones, so that remote students can work jointly no matter where they are. Furthermore, they can join an e-lecture in a live broadcast, take roles, conduct discussions and ask questions, connect or communicate with students in other places, or use audio or video to take part in online classes. Students can work as a team under their teacher's supervision to build their own learning and to identify and implement educational tasks. They can also search for information in various sources as; course database or multimedia files relevant to the topic. They can also communicate through various synchronous and asynchronous means to consult each other's and solve problems (Al-Hayani et al., ٢٠٢٠).

Students need to possess specific technical skills associated with data, education, technology and management to participate effectively in a blended classroom. These technical skills are likely to be essential for a successful blended classroom that teachers and learners need to know, be able to do and can master through teaching, training and practice. Abubakar and Adetimirin (٢٠١٥) stressed the necessity of gaining computer competence to avoid failure in applying technology in education and to achieve desired level in learning since there is a close relation between effective use of BL and high usage of computers. This is supported by Selim (٢٠٠٧) who reported that learners need to possess computer skills necessary for success in e-learning and BL.

Based on previously mentioned categorization of e-competencies, educational institutions should; establish e-technologies labs, provide peer supported online training, create an e-connection among teachers and students, ensure learning that is entirely accomplished using computer based technology, reinforce e- sharing among teachers and learners and reward learners' e-activities. Moreover, students should receive immediate responses on technical as well as pedagogical issues that pose more challenge to novice e-tutors and institutions. Hence, institutions should provide training programs to help learners acquire skills and competencies necessary for learning in a blended environment.

To conclude, BL is an approach that has the advantages of both classroom and online learning environments. Literature review made it obvious that learners should be equipped with the required e-competences for learning efficiently. It has been recommended that future e-instructors should first be students in an online course who own required pedagogical, managerial, social and technical e- competencies.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Attitude towards Blended learning:

Attitude towards e-learning refers to “the tendency to express one’s acceptance or rejection of the use of electronic devices” (RANI; ٢٠١٦:٤٦). Recognition of attitudes might provide useful information for education stakeholders that would help in designing and increasing effectiveness of blended learning adoption in higher education institutions. This can be achieved through figuring out factors that generate negative attitudes and fostering those that lead to positive ones (Sangwan et al., ٢٠٢١).

Students’ attitude towards blended learning can be positive if this new form of instruction suits their needs and characteristics, or can be negative in case of learners cannot adapt themselves to this new education system because they lack required competencies (BERTEA, ٢٠٠٩). Students’ favorable and positive attitude towards blended learning reveals a greater possibility that they will adapt to it.

Several research studies have reported positive attitude towards e-learning at most teachers (Suri & Sharma, ٢٠١٦; Akaslan & Law, ٢٠١١). In contrast, a negative relationship has been found between attitude towards classroom environment and readiness for BL at students, that is as the need for classroom learning increases, students’ need for BL will decrease (Glogwska et al., ٢٠١١; Owston et al., ٢٠١٣). These negative attitudes towards e-learning are mostly associated with low level in computer skills, digital anxiety, computer problems, low motivations, poor study skills and fail working independently (Smith et al., ٢٠٠٠; Rosenberg, ٢٠٠١). Besides, lacking personal contact with teacher and peers was another factor behind negative attitude towards e-learning as feelings of isolation and loneliness were reported by some students when they were required to learn online facing a computer screen (Ullah, ٢٠١٨).

As many teachers believe that technology is a useful tool in case of availability of adequate training (Wang et al., ٢٠٠٣) they should be given more opportunities to apply new technology regularly in order to foster positive attitude towards technology at the part of their students (Mahajan, ٢٠١٦).

Literature revealed that proper implementation of e-learning in education relies heavily on teachers' attitude towards it (Avidov-Ungar & Eshet-Alkakay, ٢٠١١; Salmon, ٢٠١١; Teo, ٢٠١١). Liaw et al., (٢٠٠٧) maintained that "no matter how advanced or capable the technology is, its effective implementation depends upon users having a positive attitude towards it" (p. ١٠٦٩)

Review of previous studies revealed that students' positive attitude towards online learning, online interaction and online flexibility made them more likely to be adapted to BL (Brown, ٢٠٠٣; Garrison & Kanuka, ٢٠٠٤; Tasi, ٢٠١٠). Zabadi and Al-Alawi (٢٠١٦) examined university students' attitudes towards e-learning and found them to be positive. Significant differences between students' responses were found with regard to gender, technology usage and skills.

Several studies have explored factors that might influence teachers' attitude towards blended learning (Chen & Tseng, ٢٠١٢; Karaca, Can & Yildirim, ٢٠١٣). Literature categorized factors affecting attitude towards technology into two categories; internal and external (Teo, ٢٠٠٩; Venkatesh et al., ٢٠٠٣). Internal factors encompass individuals' internal belief about technology originated from the degree to which they will have a favorable or unfavorable perception of technology, whereas external factors involve subjective norms (Venkatesh et al., ٢٠٠٣), organizational framework (Rogers, ٢٠٠٣; Weller, ٢٠٠٧) and environmental elements as ICT infrastructure and ICT characteristics and support (Chien, Wu & Hsu, ٢٠١٤, Teo, ٢٠٠٩).

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Some researchers have investigated learners' attitudes towards e-learning in a teaching and learning context and reached the result that students' attitudes to e-learning was a strong predictor in taking advantage of e-learning in addition to having an influence on their success (Akbari, et al., ٢٠١٢; Cinkara & Bagececi, ٢٠١٣).

Reviewing literature showed significant links between attitudes, beliefs and behaviors as attitudes shape the base of one's beliefs that influences his/her behavior. Workman (٢٠٠٥) confirmed that having favorable attitude towards a specific technology makes people mostly like to use that technology. There is a positive correlation between learners' attitudes and responses. Hence, educators should fulfill the task of improving the curriculum, its delivery and resources in order to develop learners' attitude with regard to that it might enhance learning outcomes.

To sum up, literature showed significant links between attitudes towards technology and integrating successfully in e-learning environment. Thus, it deemed necessary to investigate students' attitude level towards blended learning to learn effectively in an online environment and achieve outmost benefit.

Academic achievement:

The term achievement refers to the process of attaining a desired goal. Academically, it pertains an individual's performance up to desired standard in a specified field. Achievement implies change in one's behavior that takes place because of engaging in various kinds of learning experiences. Several factors foster the complex process of learning which brings about successful achievement. Such factors include; receiving training under the guidance of an expert to make optimal use of one's abilities, being flexible and open to new ideas and roles, carrying out activities even if beyond his/her interests, doing one's best, spending time and having pleasure in achieving goals and success (RANI, ٢٠١٦).

Achievement is assessed by referring to the progress of an individual or group of students taking into consideration their prior fulfillment and capacity. Generally, it refers to the process of attaining something which educational experiences were designed to achieve. It measures the degree of success one has in mastering knowledge, skill and comprehension. Achievement points to the knowledge or skill evolved in academic subjects that is usually assessed by test scores or by grades given by teachers (RANI, ٢٠١٦).

Academic achievement is often measured by Grade Point Average (GPA) score and is defined as performance result that indicates to what extent an individual has achieved a certain goal on which the activities in the education environment are focused. A student with high academic achievement is believed to have good academic ability which will have a good effect on his/her development at work environments (Steinmayr et al., ٢٠١٤).

Academic achievement is heavily influenced by students' attitude towards e-learning, whether they are satisfied and happy or disappointed (Shahsavari & Sudzina, ٢٠١٧). Students with high satisfaction level do their best in the learning activities that leads them to an improved academic achievement.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Means et al., (٢٠٠٩) reported that eleven out of fifty one studies comparing online and face-to-face classes favored online or blended instruction and only two favored face-to-face instruction. They stated that “the overall finding of the meta-analysis is that classes with online learning (whether taught completely online or blended) on average produce stronger students learning outcomes than do classes with solely face-to-face instruction” (p.١٨). They stressed also that active learning is very necessary for maintaining positive learning outcomes.

Although some studies showed positive relationship between e-learning and academic achievement as it led to increased academic performance (Lopez-Perez et al., ٢٠١١; Roffe, ٢٠٠٢), other studies revealed a negative relationship between satisfaction with e-learning courses and academic achievement (Levy, ٢٠٠٧) and between technology use and academic achievement. In a study conducted by Tegegne (٢٠١٤) at the University of Gemma in Ethiopia, no statistically significant differences were found between students’ scores using traditional learning and those using ICT supported learning. Abdel Jawad and Shalash (٢٠٢٠) examined the effect of e-learning on students’ academic achievement at AlQuds Open University. Results of the study revealed the importance of implementing e-learning strategy in higher education institutions to improve students’ academic achievement.

Alseweed (٢٠١٣) made a study on students' achievement and attitudes towards the use of traditional, blended and virtual learning at university. Results revealed that there are significant differences among the instructional approaches in the achievement test scores' and students' attitudes favoring the BL approach. Nurohmat (٢٠٢١) similarly reported that students' learning achievement after receiving online learning is higher than their achievement in face-to-face learning.

Another study conducted by Elfaki et al., (٢٠١٩) conducted a study at Najran University in Saudi Arabia to reveal the impact of e-learning on students' academic performance. Results showed that there were statistically significant differences between average scores of experimental and control group favoring experimental group.

Thus, previous discussion revealed that academic achievement refers to knowledge, comprehension or skills gained after instruction and training in study subjects. It is evaluated by using total score students obtained in specific exams in a separate subject or total scores of subjects combined. Achievement focuses on the quantity as well as quality of learning individuals attain after instruction. Moreover, results of previous studies clarified that there are significant different effects of instructional approaches; traditional, virtual and blended learning, on students' academic achievement level.

Material and Methods:

١. Participants:

a. The Pilot Study:

To evaluate feasibility, duration, adverse events, and improve upon the study design before the real launching of the research, a stratified random sample of sixty third year English majors enrolled in Faculty of Education, Assuit University was selected to participate in the pilot study.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

b. Participants:

Eighty third year English majors Faculty of Education, Assuit University were randomly selected and participated in the study.

٢. Tools of the Research:

- a. A Blended Learning Competencies Questionnaire (prepared by the researcher).
- b. A Blended Learning Attitude Scale (prepared by the researcher).

a. The Blended Learning Competencies Questionnaire (prepared by the researcher:

١. To build the Blended Learning Competencies Questionnaire, the researcher reviewed literature and previous studies that have dealt with blended Learning competencies.

The questionnaire has been presented to jury members including university staff to judge the validity of the statements and their appropriateness to the research purpose.

Suggested modifications have been made and the questionnaire has been introduced in its final form. The final version of the questionnaire included (٦٠) statements divided into four dimensions as follows: (١) pedagogical competencies, (٢) managerial and organizational competencies, (٣) social and behavioral competencies, and (٤) technical and digital competencies.

٢. The pilot experiment of the questionnaire:

The questionnaire was administered to a group of sixty third year English majors Faculty of Education, Assuit University in order to recognize the following:

The Validity of the questionnaire:

Internal Consistency:

The Pearson Correlation Formula was used to determine the internal consistency of the questionnaire. The correlation between the score of each individual statement and the total score of the questionnaire was determined and found to be acceptable as shown in table (١) appendix (C). Values of correlation coefficient between questionnaire dimensions and total score of the questionnaire were also calculated as shown in the following table:

Table (١)

Correlation between Dimensions and total score of the Questionnaire

	Dimensions	Correlation with test	Significance level
١	Pedagogical Competences	٠.٦٣٨	٠.٠١
٢	Managerial and Organizational Competencies	٠.٤٣٨	٠.٠١
٣	Social and Behavioral Competences	٠.٥٨٤	٠.٠١
٤	Technical and Digital Competencies	٠.٦٢٠	٠.٠١

The above table shows that all values of correlation coefficient were found to be more than (٠.٣) which are significant at (٠.٠١) and thus confirms validity of the internal consistency of the statements with the overall questionnaire. This means that the questionnaire is valid.

Discriminant validity:

It was calculated by taking the total score of the blended learning competencies questionnaire as a criterion to judge the validity of its dimensions. The highest and lowest ٢٥% of the scores were taken to represent the highest and lowest scores. Mann Whitney U test was used to compare the ranks of the averages. Results were as follows:

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Table (٢)

Discriminant validity for Blended Learning Competencies Questionnaire

Blended Learning Competencies Questionnaire		Group	N	Mean Rank	Sum of Ranks	Z value
١	Pedagogical Competences	High	١٥	٢٠,٨٧	٣١٣	٣,٣٦**
		Low	١٥	١٠,١٣	١٥٢	
٢	Managerial and Organizational Competencies	High	١٥	٢٢	٣٣٠	٤,٠٧**
		Low	١٥	٩	١٣٥	
٣	Social and Behavioral Competences	High	١٥	٢٢,٩٣	٣٤٤	٤,٦٥**
		Low	١٥	٨,٠٧	١٢١	
٤	Technical and Digital Competencies	High	١٥	٢٢,٩٧	٣٤٤,٥	٤,٦٦**
		Low	١٥	٨,٠٣	١٢٠,٥	
Total score		High	١٥	٢٣	٣٤٥	٤,٦٧**
		Low	١٥	٨	١٢٠	

** Significant at (٠,٠١) level

It was clear from the previous table that there were statistically significant differences at (٠,٠١) level between the averages of the high scores (the highest ٢٥%) and the averages of the low scores (the least ٢٥%) in all sub-components and total score of the blended learning competencies questionnaire, which indicates the discriminant validity of the questionnaire.

Questionnaire reliability:

To assure reliability of the blended learning competencies questionnaire Cronbach Alpha coefficient and Spearman- Brown split-half formulae were used as shown in the following table:

Table (٣)

Reliability coefficients of the Blended Learning Competencies Questionnaire

Dimensions	Reliability coefficient	
	Cronbach's alpha	Spearman-Brown
١ Pedagogical Competences	٠.٧٦١	٠.٧٧٠
٢ Managerial and Organizational Competencies	٠.٧٣٩	٠.٧٥١
٣ Social and Behavioral Competences	٠.٨١٥	٠.٨٢٦
٤ Technical and Digital Competencies	٠.٨٠٦	٠.٨١٤
Blended Learning Competencies Questionnaire	٠.٨٣٦	٠.٨٤٨

The questionnaire was applied to the pilot group (N=٦٠). The value of the reliability coefficient using the Alpha-Cronbach was (٠.٨٣٦) and was (٠.٨٤٨) using the Spearman- Brown split-half. It was noticed that all values were greater than (٠.٧) which indicates that the questionnaire is reliable.

Significance of the Questionnaire responses:

The responses on the questionnaire were scored by assigning the score of “٤ - ٣.٢٥” to the “strongly agree” response, “٣.٢٥ - ٢.٥” to the “agree” response, “٢.٥ - ١.٧٥” to the “disagree” response, and “١.٧٥ - ١” to the “strongly disagree”. While the negative, statements were scored in the reverse order.

b. The Blended Learning Attitude Scale (prepared by the researcher):

١. To build the Blended Learning Attitude Scale, the researcher reviewed literature and previous studies that have dealt with attitude towards blended Learning.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

The scale has been presented to jury members including university staff, as well as inspectors of English to judge the validity of the statements and their appropriateness to the research purpose. Suggested modifications have been made and the scale has been introduced in its final form. The final version of the scale included (٧٠) statements.

٧. The pilot experiment of the scale:

The scale was administered to a group of sixty third year English majors Faculty of Education, Assuit University in order to recognize the following:

The Validity of the scale:

Internal Consistency:

The Pearson Correlation Formula was also used to determine the internal consistency of the scale. The correlation between the score of each individual statement and the total score of the scale was determined. Results revealed that all values of correlation coefficient were found to be significant at (٠.٠١) which confirms validity of the internal consistency of the statements with the scale as shown in table (٧) appendix (C).

Discriminant validity:

It was calculated by taking the total score of the blended learning attitude scale as a criterion to judge the validity of its dimensions. The highest and lowest ٢٥% of the scores were taken to represent the highest and lowest students' scores. Mann Whitney U test was used to compare the ranks of the averages. Results were as follows:

Table (٤)

Discriminant validity for the Blended Learning Attitude Scale

Blended Learning Attitude Scale	Group	N	Mean Rank	Sum of Ranks	Z value
Total score	High	١٥	٢٣	٣٤٥	٤.٦٧**
	Low	١٥	٨	١٢٠	

** Significant at (٠.٠١) level

It was clear from the above table that there were statistically significant differences at (٠.٠١) level between the averages of the high scores (the highest ٢٥%) and the averages of the low scores (the least ٢٥%) on the total score of the blended learning attitude scale, which indicates the discriminant validity of the scale.

Scale reliability:

To assure reliability of the blended learning attitude scale, Cronbach Alpha coefficient and Spearman- Brown split-half formula were used as shown in the following table:

Table (٥)

Reliability coefficients of the Blended Learning Attitude Scale

Blended Learning Attitude Scale	Reliability coefficient	
	Cronbach's alpha	Spearman-Brown
Total score	٠.٨١١	٠.٨٢٧

The scale was applied to the pilot group (N=٦٠). The value of the reliability coefficient using the Alpha-Cronbach was (٠.٨١١) and was (٠.٨٢٧) using the Spearman- Brown split-half. It was recognized that all values were greater than (٠.٧) which indicates that the scale is reliable.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Significance of the scale responses:

The responses on the scale were scored by assigning the score of “٤- ٣.٢٥” to the “strongly agree” response, “٣.٢٥ - ٢.٥” to the “agree” response, “٢.٥- ١.٧٥” to the “disagree” response, and “١.٧٥- ١” to the “strongly disagree”. While the negative, statements were scored in the reverse order.

Findings:

١. Discussing the first research hypothesis:

The first research hypothesis states, “Faculty of Education English majors achieve an average level of necessary blended learning competencies”.

To test this hypothesis, means and standard deviation were calculated for students’ scores on the Blended Learning Competencies Questionnaire and the One Sample T-Test was used as shown in the following table:

Table (٦)

One Sample T-Test results for (Blended Learning Competencies Questionnaire)

Dimensions	Maximum score	Value	Mean/ % (level)	Std. Deviation	Df	T value
١ Pedagogical Competences	٦٠	Actual	٢٤.٦٨/ ٤١% (low)	٣.٨٤	٧٩	-١٢.٤٩**
		Moderate	٣٠			
٢ Managerial and Organizational Competencies	٥٦	Actual	٢٣.٥٠/ ٤٢% (low)	٣.٩٢	٧٩	-١٠.٣٤**
		Moderate	٢٨			

Table (٦) Continued.

Dimensions	Maximum score	Value	Mean/ % (level)	Std. Deviation	Df	T value
٣ Social and Behavioral Competences	٤٨	Actual	١٩.٦٨ / ٤١% (low)	٣.٥١	٧٩	-١١.٠٨**
		Moderate	٢٤			
٤ Technical and Digital Competencies	٧٦	Actual	٣١.٨٥ / ٤٢% (low)	٥.٢٠	٧٩	-١٠.٦٥**
		Moderate	٣٨			
Total score	٢٤٠	Actual	٩٩.٧٠ / ٤١.٥% (low)	١٣.٤٢	٧٩	-١٣.٦١**
		Moderate	١٢٠			

****Significant at level (٠.٠١)**

It was clear from the above table that there was a statistically significant difference between mean scores of the students of the research group at (Pedagogical Competencies) dimension. The mean value was (٣٠) as the mean level was (٢٤.٦٨) and the value of “t” was (-١٢.٤٩) which is statistically significant at (٠.٠١) level. This implies that research group students showed a low level of (Pedagogical Competencies).

It was clear also that there was a statistically significant difference between mean scores of the students of the research group at the (Managerial and Organizational Competencies) dimension. The mean value was (٢٨) as the mean level was (٢٣.٥٠) and the value of “t” was (-١٠.٣٤) which is statistically significant at (٠.٠١) level. This implies that research group students showed a low level of (Managerial and Organizational Competencies).

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

The above table showed also that there was a statistically significant difference between mean scores of the students of the research group at the (Social and Behavioral Competencies) dimension. The mean value was (٢٤) as the mean level was (١٩.٦٨) and the value of “t” was (-١١.٠٨) which is statistically significant at (٠.٠١) level. This implies that research group students showed a low level of (Social and Behavioral Competencies)

Again, the above table showed also a statistically significant difference between mean scores of the students of the research group at the dimension of (Technical and Digital Competencies). The mean value was (٣٨) as the mean level was (٣١.٨٥) and the value of “t” was (-١٠.٦٥) which is statistically significant at (٠.٠١) level. This implies that research group students showed a low level of (Technical and Digital Competencies).

It was also clear from previous table that there was a statistically significant difference between mean scores of the students of the research group on the overall questionnaire. The mean value was (١٢٠) as the mean level was (٩٩.٧٠) and the value of “t” was (-١٣.٦١) which is statistically significant at (٠.٠١) level. This reveals that research group students showed a low level of blended learning competencies.

٢. Discussing the second research hypothesis:

The second research hypothesis states, “Faculty of Education English majors achieve an average level of attitude towards blended learning”.

To test this hypothesis, means and standard deviation of students' scores on the Blended Learning Attitude Scale were calculated and the One Sample T-Test was used as shown in the following table:

Table (٧)

One Sample T-Test results for (Blended Learning Attitude Scale)

Scale	Maximum score	Value	Mean/ % (level)	Std. Deviation	Df	T value
Blended Learning Attitude Scale	٢٨٠	Actual	١٣٨.٤٨/ ٤٩.٥% (moderate)	٢٩.٧٢	٧٩	-٠.٤٦ (N.S)
		Moderate	١٤٠			

N.S = Non Significant

It was clear from the previous table that there was a statistically significant difference between mean scores of the students on the attitude scale. The mean value was (١٤٠) as the mean level was (١٣٨.٤٨) and the value of “t” was (-٠.٤٦) which is a non-statistically significant value. This indicates that research group students achieved an average level of attitude towards blended learning.

٣. Discussing the third research hypothesis:

The third research hypothesis states, “There is no statistically significant correlation between the scores of the students of the research group on the questionnaire of blended learning competencies and their scores on the scale of attitude towards blended learning.”

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

To test this hypothesis, the Pearson's Correlation Coefficient was calculated between the scores of the research group students on the Blended Learning Competencies Questionnaire and their scores on the Blended Learning Attitude Scale as shown in the following table:

Table (٨)

Pearson correlation coefficients between students' scores on the Blended Learning Competencies Questionnaire and their scores on the Blended Learning Attitude Scale

Blended Learning Competencies Questionnaire		Blended Learning Attitude Scale			
		N	Correlation coefficient	Direction	Sig.
١	Pedagogical Competences	٨٠	٠.٢٨١	Positive	٠.٠١
٢	Managerial and Organizational Competencies	٨٠	٠.٢٥٧	Positive	٠.٠٥
٣	Social and Behavioral Competences	٨٠	٠.٣٤٣	Positive	٠.٠١
٤	Technical and Digital Competencies	٨٠	٠.٢٩٢	Positive	٠.٠١
Total score		٨٠	٠.٢٧٧	Positive	٠.٠١

It was clear from the previous table that:

- There is a statistically significant positive correlation at (٠.٠١) level between the scores of the research group students on the Blended Learning Competencies Questionnaire and their scores on the Blended Learning Attitude Scale, as the correlation coefficient value was (٠.٢٧٧), which is statistically significant at (٠.٠١) level.

- There is a statistically significant positive correlation at (0.01) level between the scores of the research group students on the dimensions of the Blended Learning Competencies Questionnaire (Pedagogical Competencies, Social and Behavioral Competencies, Technical and Digital Competencies) and their scores on the Blended Learning Attitude Scale as the values of the correlation coefficient were (0.292 , 0.343 , 0.281) that are statistically significant at (0.01) level.
- There is a statistically significant positive correlation at (0.05) level between the scores of the research group students on the dimension of the Blended Learning Competencies Questionnaire (Managerial and Organizational Competencies) and their scores on the Blended Learning Attitude Scale as the value of the correlation coefficient was (0.257) which is statistically significant at (0.05) level.

It was clear from the above results that there is a statistically significant positive correlation at (0.01) level between the scores of the research group students on the Blended Learning Competencies Questionnaire and their scores on the Blended Learning Attitude Scale which means that students who have high level of blended learning competencies are expected to have positive attitudes towards blended learning. This also indicates that students who have low level of blended learning competencies are expected to have a negative attitude towards blended learning.

٤. Discussing the fourth research hypothesis:

The fourth research hypothesis states, "There is no statistically significant correlation between the scores of the students of the research group on the questionnaire of blended learning competencies and their academic achievement".

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

To test this hypothesis, the Pearson's Correlation Coefficient was calculated between the scores of the research sample students on the Blended Learning Competencies Questionnaire and their scores on academic achievement as shown in the following table:

Table (٩)

Pearson correlation coefficients between students' scores on the Blended Learning Competencies Questionnaire and their Academic achievement

Blended Learning Competencies Questionnaire	Academic achievement			
	N	Correlation coefficient	Direction	Sig.
١ Pedagogical Competences	٨٠	٠.٣١٣	Positive	٠.٠١
٢ Managerial and Organizational Competencies	٨٠	٠.٢٤٤	Positive	٠.٠٥
٣ Social and Behavioral Competences	٨٠	٠.٣٧٧	Positive	٠.٠١
٤ Technical and Digital Competencies	٨٠	٠.٢٥٦	Positive	٠.٠٥
Total score	٨٠	٠.٢٩٨	Positive	٠.٠١

- There is a statistically significant positive correlation at (0.01) level between the scores of the research group students on the Blended Learning Competencies Questionnaire and their scores on academic achievement, as the correlation coefficient value was (0.298), which is statistically significant at (0.01) level.
- There is a statistically significant positive correlation between the scores of the research group students on the dimensions of the Blended Learning Competencies Questionnaire (Pedagogical Competences, Social and Behavioral Competences) and their scores on academic achievement as the values of the correlation coefficient were ($0.377, 0.313$) that are statistically significant at (0.01) level.

- There is a statistically significant positive correlation between the scores of the research group students on the dimensions of the Blended Learning Competencies Questionnaire (Managerial and Organizational Competencies, Technical and Digital Competencies) and their scores on academic achievement as the values of the correlation coefficient were (٠.٢٥٦, ٠.٢٤٤) that are statistically significant at (٠.٠٥) level.

It was clear from the above results that there is a statistically significant positive correlation at (٠.٠١) level between the scores of the research group students on the Blended Learning Competencies Questionnaire and their scores on academic achievement which implies that a student who has a high level of blended learning competencies is expected to positively affect his/her academic achievement and that a student who has a low level of blended learning competencies is expected to negatively affect his/her academic achievement.

٥. Discussing the fifth research hypothesis:

The fifth research hypothesis states, “There is no statistically significant correlation between the scores of the students of the research group on the scale of attitude towards blended learning and their academic achievement.”

To test this hypothesis, the Pearson’s Correlation Coefficient was calculated between the scores of the research group students on the Blended Learning Attitude Scale and their scores on academic achievement as shown in the following table:

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Table (١٠)

Pearson correlation coefficients between students' scores on the Blended Learning Attitude Scale and their Academic Achievement

Blended Learning Attitude Scale	Academic achievement			
	N	Correlation coefficient	Direction	Sig.
Total score	٨٠	٠.٢٦٦	Positive	٠.٠١

It was clear from the above table that there is a statistically significant positive correlation at (٠.٠١) level between the scores of the research group students on the Blended Learning Attitude Scale and their academic achievement as the correlation coefficient value was (٠.٢٦٦). This implies that a student who has positive attitudes towards blended learning is expected to positively affect his/her academic achievement, and that a student who has negative attitudes towards blended learning is expected to negatively affect his/her academic achievement.

Discussion and conclusion:

It is obviously clear that blended learning has become a fundamental approach for teaching and learning nowadays. Based on the results pointed out above, it was obvious that students achieved a low level of blended learning competencies namely; pedagogical, managerial, social and technical. This implies that all competencies, not only pedagogical ones, need to be approached and taught to English majors in order to facilitate their learning in a blended environment. In a similar vein, Smyth et al., (٢٠١٢) revealed that students showed low level of technical competencies and concluded that technology problems could hinder learners from taking part in blended learning environments. Similarly, Mahfouz and Salam (٢٠٢١) reached the result that students generally have negative attitudes towards online learning simply due to various technical and financial problems associated with it.

Although blended learning is very attractive nowadays because of its flexibility and ease, this new mode of learning brings challenges for university students because of lacking necessary competencies required for becoming successful e-learners. Yar, et al., (٢٠٠٨) maintained that both teachers and students might face dramatic shifts during the transition from traditional applications to technology-based environments that requires being updated with e-competencies to become effective instructors and successful learners. Hadad (٢٠٠٧) confirmed that success in e-learning and BL depends largely on students and teachers' gained competence and capability to take part in BL

Literature revealed that the focus is often on developing information and communication technology based- environments (ICT) whereas poor attention is given to learning delivery methods. Consequently, acquaintance with the changing role of the e-tutor together with the competencies necessary for online learning environments should be gathered to ensure that these environments are used in the best possible way (Mcshane, ٢٠٠٠). In order to introduce e-learning programs it is essential that e-teachers understand their role and value and recognize the requirements of the online environment (Packham et al., ٢٠٠٤). Graham et al., (٢٠١٩) conducted a study to investigate competencies required for effective engagement in a BL environment. They reached the result that only minimum preparation in blended teaching/learning have been received partly because of limited comprehension of needed competencies especially those necessary for teachers/learners' success. Therefore, student-teachers must own specific BL competencies in order to help them build positive attitudes towards BL There is also a crucial necessity to provide teachers with the competencies required for designing and facilitating BL that provides learners with customized and equitable learning experiences and help them engage successfully in a blended learning environment.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Analyzing students' responses revealed that they achieved an average level of attitude towards blended learning. Such results might be attributed to the idea that some students preferred to meet directly with peers and instructor when drawing a discussion or completing a task. Marriot et al., (٢٠٠٤) reached the result that learners expressed their preference for face-to-face learning because it facilitates their communication and social interaction skills they acquired from classroom setting. Others who reported their preference of meeting online might be due to the advantage of time management. Previous studies revealed that students who favor online learning feel that they have great time to consider and respond to asynchronous discourse more successfully (Collopy & Arnold, ٢٠٠٩; Howard, ٢٠٠٩). Osgerby's (٢٠١٣) reported that, though preferred face-to-face instruction, learners had positive perceptions towards BL This might be because BL provides advantages of time saving and appropriate location for students. Besides, learners can easily get learning materials online anytime and anywhere (Akkoyunlu & Yilmaz-Soylu, ٢٠٠٨). Online learning also offers students much time to think carefully about their responses and thus they can better express their thoughts an element that might be an advantage for introverted students who might be uncomfortable with sharing their views in front of their instructor and peers (Howard, ٢٠٠٩).

One can draw from previously reached results that lack of communication in e-learning sessions might lead students feel frustrated compared to in-class learning where they can have a sense of intimacy. Beard et al., (٢٠٠٤) reached similar results when drawing a comparison between online and on-campus learning. They revealed that learners showed success when interacting in person with peers and teachers and thus preferred face-to-face in the blend. Moreover, Kelley and Gorham (٢٠٠٩) pointed out that the presence of the teacher face-to-face reduces the psychological distance between them and their learners and thus leads to better learning. This is due to the availability of verbal aspects such as

being praised, asking for viewpoints, humor, besides non-verbal communication like gestures, facial expressions and eye contact that bring teachers closer psychologically to learners. Furthermore, limited feedback when learning online was a complaint of some students contrary to in-class learning where students get direct guidance and can easily ask questions and get teacher and peers' immediate feedback. Lack of instant response or non-verbal cues between teachers and peers might result in a poor learning environment that damages learners' self-confidence (Drange & Roarson, ٢٠١٥). Mahfouz and Salam (٢٠٢١) investigated Jordanian university students' attitudes towards online learning and obstacles they encountered together with suggested solutions. Results of the study showed that students' attitudes towards e-learning were generally negative. Moreover, most participants reported that they prefer face-to-face classroom instruction over e-learning as it allows direct contact with the instructor. Conversely, in their study Kwak et al., (٢٠١٣) compared BL with traditional face-to-face learning and reached the result that learners are not affected by delivery method and performed equally well in both of them.

Moderate attitude level can be explained in the idea that some students reporting that networking can be an obstacle as they might not have good network access. Harris et al., (٢٠٠٩) similarly reached the result that accessibility and closeness to digital technology among students are essential requirements for the successful implementation of BL It can also be attributed to feeling uncomfortable using technology for online communication and information exchange as some students still face difficulty using various multimedia applications. Picciano and Seaman (٢٠٠٧) have noted that learners' success in BL or e-learning depends highly on their experience in using internet and computer applications. Students who have negative perceptions towards e-learning reported that they have encountered various challenges throughout online lectures as; recurrent internet interruptions in online platforms, lack of governmental financial support, and unavailability of computer labs (Febrianto et al., ٢٠٢٠).

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

Muhammad and Kainat (٢٠٢٠) investigated Pakistanian undergraduate and postgraduate students' attitudes towards distance learning used for teaching university courses during Covid-١٩ pandemic. Findings showed that online learning could not achieve desired outcomes because a vast majority of students could not access the internet for technical as well as financial matters besides lack of live interaction with instructor and lack of classroom social environment.

Blizak et al., (٢٠٢٠) investigated the perception of Algerian university students concerning the rapid shift from in class learning to online learning during the current crisis. Results revealed that students did not have a positive perception of online learning and prefer in-class learning. The above literature clarified that the majority of studies conducted during the pandemic on online learning revealed that it is ineffective in the view of both teachers and students. Obtained results of these studies indicated that students suffered greatly from internet access, lacking socialization as well as lack of required technical support.

Coolican et al., (٢٠٢٠) investigated instructors and learners' perceptions of the sudden shift to online instruction in four colleagues in Argentina. They reached the result that instructors and educators could adapt to shifting to online teaching, though they reported that they have faced many challenges such as the inaccessibility to technology needed for online teaching besides failing to use e-learning platforms to upload and assess assignments.

Understanding students' attitudes towards different aspects of learning can be necessary for assessing their adaptability, willingness and responsibility for participating in blended learning. Current research reached results convey that some students still prefer face-to-face learning and have negative attitudes towards e-learning. However, literature revealed that the more positive the attitudes, the more willing to

pursue blended learning (Brown, ٢٠٠٣; Howard, ٢٠٠٩; Smyth et al., ٢٠١٢). In a blended learning environment, students have a greater sense of responsibility in their studies. Disciplined students can perform better because the speed of learning depends on each individual (Owston, et al., ٢٠١٣; Smyth, et al., ٢٠١٢). This directs the attention to the necessity of well designing of blended learning environment so that students form positive attitudes towards e-learning which might in turn raise their motivation to take part in online learning sessions.

Current research results revealed that not all students completely refused blended learning as they showed moderate attitude level towards learning in a blended environment. This highlights the necessity and importance of equipping students with required e-learning competencies to help them get positive attitude towards the blended learning form.

Analyzing results of current research showed a statistically significant positive correlation between students' attitude towards blended learning and their academic achievement as having positive attitude towards blended learning can positively affect students' academic achievement and vice versa. Satuti et al., (٢٠٢٠) reached the conclusion that there was a significant positive influence of e-learning service quality on students' satisfaction that would result in a maximum academic achievement. They recommended that university should enlarge students' academic engagement since it could improve their satisfaction which might lead to a maximum academic achievement. Stacey and Gerbic (٢٠٠٧) maintained that learning experience and academic performance have improved when integrating traditional and online delivery methods. Mothibi (٢٠١٥) focused on analyzing the relationship between e-learning and students' academic achievement. He reached the result that e-learning has a significant positive moderate effect on students' academic achievement. The study then recommended effective application of ICT tools to facilitate e-learning and consequently enhance overall academic achievement level.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

In accordance with current research findings, Owston et al., (٢٠١٣) found a positive correlation between students' involvement in a blended learning environment and their academic achievement as it allows them to explore various learning e-resources that accommodate all learning levels which could positively affect their achievement level. Kenney and Newcombe (٢٠١١) similarly established a comparison between learners' grades in a blended and non-BL environments. They reached the result that BL environment had a higher average score than the non-blended one.

Garrison and Kanuka (٢٠٠٤) examined transformative potential of BL and found a raise in course development rates besides an enhanced retention and an increase in learners' satisfaction. Soleymanpour et al., (٢٠١٠) added that those higher education students who come from various academic institutions that have used e-learning performed generally quite better than their counterparts who relied only on face-to-face instruction. Holley (٢٠١٢) similarly reported that university students who participated in e-learning achieved quite much better than those who examined traditional methods of instruction.

To sum up, blended learning has become a necessary aspect in universities and a corner stone for additional learning; however, it is still a challenge for most learners at different educational levels. Therefore, universities and other learning institutions should go on emphasizing BL approach by installing learning management systems together with strong internet connection to allow effective learning through using technology particularly in developing countries. It deemed necessary to equip students with the required e-competences for learning efficiently in a blended environment since have proved necessary for developing positive attitudes towards blended learning and have significant positive correlation with students' academic achievement.

Recommendations:

١. Providing appropriate learning and development programs supported by the development of relevant competencies for all students joining a blended learning environment.
٢. Future research studies should be focused on the strategies and methods for self-paced, self-determined and personalized instruction to get along with e- learning competencies.
٣. Designing programs to help in-service teachers gain mastery of skills and competencies required for both face-to-face learning and blended learning.
٤. Institutions should provide training programs to help tutors acquire skills and competencies necessary for providing their students with required technical support.
٥. Guiding teacher training program creators to design significant training sessions for developing novice e-tutors' teaching competencies.
٦. Designing research to help teacher training program creators in developing relevant course materials for novice e-tutors.
٧. University and other learning institutions should go on emphasizing blended learning approach by installing learning management systems together with strong internet connection to allow effective learning through the use of technology particularly in developing countries.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

References

- Abdel Jawad, Y. & Shalash, B. (٢٠٢٠). The Impact of E-Learning Strategy on Students' Academic Achievement Case Study: Al-Quds Open University. *International Journal of Higher Education* ٩ (٦).
- Abubakar, D. & Adetimirin. (٢٠١٥). *Influence of computer literacy on post-graduates' use of e-resources in Nigerian University Libraries*. Library Philosophy and Practice. From <http://digitalcommons.unl.edu/libphilprac/>. Retrieved ١٨ Aug
- Akaslan, D., & Law, E. L. (٢٠١١). Measuring teachers' readiness for e-learning in higher education institutions associated with the subject of electricity in Turkey. In ٢٠١١ IEEE *Global Engineering Education Conference (EDUCON)* (pp. ٤٨١-٤٩٠). IEEE.
- Akbari, E., Eghtesad, S., & Simons, R. J. (٢٠١٢). Students' attitudes towards the use of social networks for learning the English language. *Paper presented at International Conference on ICT for Language Learning*, Retrieved from <https://pdfs.semanticscholar.org/٢٩٧f/٥١bea٧٩e١f٤٠f٩a٩١٠٧٨ecf٨b٨ff٨d٣١١d٨٨.pdf>.
- Akkoyunlu, B., & Yilmaz-Soylu, M. (٢٠٠٨). Development of a scale on learners' views on blended learning and its implementation process. *Internet and Higher Education*, ١١(١), ٢٦-٣٢. <https://doi.org/١٠.١٠١٦/j.iheduc.٢٠٠٧.١>
- Al-Hayani, A., Bardesi, H. & Haddanien, M. (٢٠٢٠). *The five competencies of E-learning*. SBN: ٩٧٨-٦٠٣-٠٣-٦٥٧١-٥.

- Alseweed, M. (٢٠١٣). Students' achievement and attitudes toward using traditional learning, blended learning and virtual classes learning in teaching and learning at the university level. *Studies in Literature and Language*, ٦(١), ٦٥-٧٣.
- Anderson, N., (٢٠٠٣). Scrolling, clicking, and reading English: Online reading strategies in a second/foreign language. *The Reading Matrix*, ٣(٣), ١- ٣٣.
- Archambault, L., DeBruler, K., & Freidhoff, J. (٢٠١٤). K-١٢ online and blended teacher licensure: Striking a balance between policy and preparedness. *Journal of Technology and Teacher Education*, ٢٢(١), ٨٣-١٠٦. Retrieved from <http://www.editlib.org/p/١١٢٣٦١/share>
- Avidov-Ungar, O., & Eshet-Alkakay, Y. (٢٠١١). Teachers in a world of change: Teachers' knowledge and attitudes towards the implementation of innovative technologies in schools. *Interdisciplinary Journal of E-Learning and Learning Objects (IJELLO)*, ٧, ٢٩١-٣٠٣.
- Barbour, M. K., Siko, J., Gross, E., & Waddell, K. (٢٠١٢). *Virtually unprepared: Examining the preparation of K-١٢ online teachers*. In R. Hartshorne, T. Heafner, & T Petty (Eds), *Teacher education programs and online learning tools: Innovations in teacher preparation* (pp. ٦٠-٨١). Hershey, PA: IGI Global.
- Beard, L. A., Harper, C., & Riley, G. (٢٠٠٤). Online versus on-campus instruction: student attitudes & perceptions. *TechTrends*, ٤٨(٦), ٢٩-٣١.
- Berge, Z. L. (١٩٩٥). Facilitating computer conferencing Recommendations from the field. *Educational Technology*, ٣٥(١). ٢٢-٣٠.
- BERTEA, P. (٢٠٠٩). Measuring Students' Attitude Towards E-Learning. A Case Study. *The Fifth International Scientific Conference. E-learning and Software for Education. April*, ١٠.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

- Blizak D, Blizak S, Bouchenak Q, Yahiaoui K. (٢٠٢٠) Students' perceptions regarding the abrupt transition to online learning during the COVID-١٩ pandemic: Case of faculty of Chemistry and Hydrocarbons at the University of boumerdes-Algeria. *Journal of CHEMICAL EDUCATION*.; ٩٧(٩): ٢٤٦٦-٢٤٧١. DOI: ١٠.١٠٢١/acs.jchemed.٠٠٦٦٨.
- Brown, R. (٢٠٠٣). Blended learning: Rich experiences from a rich picture. *Training and Development in Australia*, ٣٠(٣), ١٤-١٧.
- Chen, H-R., & Tseng, H-F. (٢٠١٢). Factors that influence acceptance of web-based e-learning systems for the in-service education of junior high school teachers in Taiwan. *Evaluation and Program Planning*, ٣٢(٣), ٣٩٨-٤٠٦.
- Chien, S-P., Wu, H-K., & Hsu, Y-S. (٢٠١٤). An investigation of teachers' beliefs and their use of technology-based assessments. *Computers in Human Behaviour*, ٣١, ١٩٨-٢١٠.
- Cinkara, E., & Bagceci, B. (٢٠١٣). Learner's attitudes towards online language learning; and corresponding success rates. *Turkish Online Journal of Distance Education*, ١٤(٢), ١١٨-١٣٠.
- Collopy, R. M., & Arnold, J. M. (٢٠٠٩). *To Blend or Not To Blend: Online-only. and Blended Learning Environments Issues in*

- Coolican, M., Borrás, J., & Strong, M. (٢٠٢٠). Argentina and the COVID-١٩: Lessons learned from education and technical colleges in Buenos Aires Province. *Journal of Education for Teaching*, ٤٦(٤), ٤٨٤-٤٩٦. <https://doi.org/10.1080/026074٧٦.2020.180220٤>
- Costley, K. C. (٢٠١٤). *The positive effects of technology on teaching and student learning*. Arkansas Tech University.
- Cox, E. S., Clark, W. P., Heath, H. , & Plumpton, B. (٢٠٠٠). *Key facilitation skills for effective online discussion groups: Herding cats through Piccadilly Circus Proceedings from Distance Education: An open question*, Adelaide Retrieved from <http://www.unisanet.unisa.edu.au/cccc/papers/refereed/paper١١/paper١١%E٢٪٨٠٪٩٣١.htm>
- Davis, N., Roblyer, M. D. P. , Charania, A., Ferdig, R., Harms, C., Compton, L. K. L., & Cho, M. O. (٢٠٠٧). Illustrating the “virtual” in virtual schooling: Challenges and strategies for creating real tools to prepare virtual teachers. *Internet and Higher Education*, ١٠, ٢٧-٣٩.
- Dell, C, Low, C. & Wilker, J. (٢٠١٠). Comparing Student Achievement in Online and Face-to-Face Class Formats. *MERLOT Journal of Online Learning and Teaching*, ٦(١), March.
- DESECO Director for Education Employment, Labour and Social Affairs Education Committee. DEELSA/ED/CERI/CD (٢٠٠٩). *Definition and selection of competencies. Theoretical and conceptual foundations. Strategy Paper*. Complete document available on OLIS in its original format. Retrieved from http://www.portalstat.admin.ch/deseeco/deseeco_strategy_paper_final.pdf

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

- Drange, T., & Roarson, F. (٢٠١٥). Reflecting on e-learning: A different challenge. *eLearning & Software for Education*, ٢, ٤٤٢-٤٤٦.
- Elfaki, N., Abdulraheem, I., and Abdulrahim, R. (٢٠١٩). Impact of E-learning VS traditional learning on students performance and attitude. *International Journal of Medical Research & Health Sciences*, ٨(١٠), ٧٦-٨٢. <https://www.ijmrhs.com/medical-research/impact-of-e-learning-vs-traditional-learning-on-students-performance-and-attitude.pdf>
- Enayati, T., Modanloo, Y., & Kazemi, F. S. M. (٢٠١٢). Teachers' attitudes towards the use of technology in education. *Journal of Basic and Applied Scientific Research*, ٢(١١), ٠١٠٩٥٨-٠١٠٩٦٣
- Erarslan, & Topkaya, Z. (٢٠١٧). EFL Students' Attitudes towards e-Learning and Effect of an Online Course on Students' Success in English. *The Literacy Trek*, ٢(٢).
- Eraut, M. (١٩٩٨). Concept of competence. *Journal of Inter-professional Care*, ١٢(٢), ١٢٧-١٣٩.
- Febrianto, P., Mas'udah, S., & Megasari, L. (٢٠٢٠). Implementation of online learning during the Covid-١٩ pandemic on Madura Island, Indonesia. *International Journal of Learning, Teaching and Educational Research*, ١٩(٨), ٢٣٣-٢٥٤. <https://doi.org/١٠.٢٦٨٠٣/ijlter.١٩.٨.١٣>
- Finn, A., & Bucciari, M. (٢٠٠٤). *A Case Study Approach to Blended Learning*. Los Angeles: Centra Software
- Firdaus, Muntaqo & Trisnowati (٢٠٢٠). Analysis of Student Readiness for Blended Learning Model Implementation in

- Industrial Era ٤.٠. *Indonesian Journal of Science and Education*, ٤(١), ٤٨-٥٦.
- Gardner, D. G., Dukes, R. L., & Discenza, R. (١٩٩٣). Computer use, self-confidence and attitudes: A causal analysis. *Computers in Human Behavior*, ٩(٣), ٤٢٧-٤٤٠.
- Garrison, D. R., & Kanuka, H. (٢٠٠٤). Blended learning: Uncovering its transformative potential in higher education. *Internet and Higher Education*, ٧(٢), ٩٥-١٠٥.
- Ghavifekr, S., & Rosdy, W. A. W. (٢٠١٥). Teaching and learning with technology: Effectiveness of ICT integration in schools. *International Journal of Research in Education and Science*, ١(٢), ١٧٥-١٩١.
- Girgurovic, M. (٢٠١٠). *Technology-enhanced blended language learning in an ESL class: a description of a model and application of the diffusion of innovation theory*. Unpublished PhD Thesis, Iowa State University.
- Glogowska, M., Young, P., Lockyer, L., & Moule, P. (٢٠١١). How 'blended' is blended learning?: Students' perceptions of issues around the integration of online and face-to-face learning in a continuing professional development (CPD) health care context. *Nurse Education Today*, ٣١(٨), ٨٨٧-٨٩١
<http://dx.doi.org/10.1016/j.nedt.2011.02.003>
- Graham, C. R., Borup, J., Pulham, E. B., & Larsen, R. (٢٠١٩). K-١٢ blended teaching readiness: Model and instrument development. *Journal of Research on Technology in Education*. ٥١(٣), ٢٣٩-٢٥٨.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

- Gulbahar, Y. & Kalelioglu, F. (٢٠١٥). Competencies for e-Instructors: How to Qualify and Guarantee Sustainability. *Contemporary Educational Technology*, ٦(٢), ١٤٠-١٥٤.
- Hadad, W. (٢٠٠٧). *ICT-in-education toolkit reference handbook*. InfoDev. Retrieved from <http://www.infodev.org/en/Publication.٢٠١.html>. Retrieved ٠٤ Aug ٢٠١٥.
- Harris, P., Connolly, J., & Feeney, L. (٢٠٠٩). Blended learning: Overview and recommendations for successful implementation. *Industrial and Commercial Training*, ٤١(٣), ١٥٥-١٦٣. <https://doi.org/١٠.١١٠٨/٠٠١٩٧٨٥٠٩١٠٩>
- Hartel, R. W., & Foegeding, E. A. (٢٠٠٤). Learning: Objectives, competencies, or outcomes? *Journal of Food Science Education*, ٣(٤), ٦٩-٧٠.
- Hofmann, J. (٢٠١٤). *Solutions to the top ١٠ challenges of blended learning. Top ١٠ challenges of blended learning*. Available on cedma-europe.org.
- Holley, D. (٢٠١٢). Which room is the virtual seminar in place? *Education and Training*, ٤٤(٣), ١١٢-١٢١.
- Howard, S. B. (٢٠٠٩). The benefits of face-to-face interaction in the online freshman composition course. *Journal of Online Learning and Teaching*, ٥(٤), ٦٧٩- ٦٨٥.
- Kalanda, K. (٢٠٠٥). *Factors influencing college students' attitude towards technology*. Unpublished master's dissertation, University of South Africa. Retrieved from <https://core.ac.uk/download/pdf/٤٣١٦٥٠٠٤>.
- Karaca, F., Can, G., & Yildirim, S. (٢٠١٣). A path model for technology integration into elementary school settings in Turkey. *Computers and Education*, ٦٨, ٣٥٣-٣٦٥.

- Kelley, D. H. & Gorham, J. (٢٠٠٩) Effects of immediacy on recall of information. *Communication Education*, ٣٧(٣), ١٩٨-٢٠٧.
- Kennedy, K., & Archambault, L. (٢٠١٢). Offering pre-service teachers field experiences in K-١٢ online learning: A national survey of teacher education programs. *Journal of Teacher Education*, ٦٣(٨٠١), ١٨٥-٢٠٠. Retrieved from <http://doi.org/10.1177/0022487111433651>
- Kenney, J., & Newcombe, E. (٢٠١١). Adopting a blended learning approach: Challenges, encountered and lessons learned in an action research study. *Journal of Asynchronous Learning Networks*, ١٩(١), ٤٥-٥٧.
- Kintu, J., Zhu, C. & Kagambe, E. (٢٠١٧). Blended learning effectiveness: the relationship between student characteristics, design features and outcomes. *International Journal of Educational Technology in Higher Education*. ١٤(٧).
- Kraut, R., Mukhopadhyay, T., Szczypula, J., Kiesler, S., & Scherlis, B. (١٩٩٩). Information and communication: Alternative uses of the internet in households. *Information Systems Research*, ١٠(٤), ٢٨٧-٣٠٣.
- Kwak, D. W., Menezes, F. M., & Sherwood, C. (٢٠١٣). Assessing the impact of blended learning on student performance. *Educational Technology & Society*, ١٩(١), ١٢٧-١٣٦.
- Lazar, S. (٢٠١٥). The importance of educational technology in teaching. *International Journal of Cognitive Research in Science, Engineering and Education*, ٣(١), ١١١-١١٤.
- Lea, L., Clayton, M., Draude, B., & Barlow, S. (٢٠٠١). The impact of technology on teaching and learning. *Educause Quarterly*, ٢٤(٢), ٦٩.
- Lentell, H. (٢٠٠٣). *The Importance of the Tutor in Open and Distance Learning*. In A. Tait & R. Mills (Eds.), *Rethinking*

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

- Learner Support In Distance Education (pp. ٦٤-٧٦).
London: RoutledgeFalmer.
- Levy, Y. (٢٠٠٧). Comparing dropouts and persistence in e-learning courses. *Computers and Education*, ٤٧(٢), ١٨٥-٢٠٤. <https://doi.org/10.1016/j.compedu.2007.12.004>
- Liaw, S-S., Huang, H-M., & Chen, G-D. (٢٠٠٧). Surveying instructor and learner attitudes toward e-learning. *Computers and Education*, ٤٩, ١٠٦٦-١٠٨٠.
- Li C, Lalani F.(٢٠٢٠). The COVID-١٩ pandemic has changed education forever. This is how. *WORLD ECONOMIC FORUM*, [Weforum.org/agenda/٢٠٢٠/٠٤/coronavirus-education-global-covid١٩-online-digital-learning/](https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid-19-online-digital-learning/)
- López-Pérez, M. V., Pérez-López, M. C., & Rodríguez-Ariza, L. (٢٠١١). Blended learning in higher education: Students' perceptions and their relation to outcomes. *Computers and Education*, ٥٦(٣), ٨١٨-٨٢٦.
- Mahajan, G. (٢٠١٦). Attitude of teachers towards the use of Technology in Teaching. *Educational Quest-An International Journal of Education and Applied Social Sciences*, ٧(٢), ١٤١-١٤٦.
- Mahfouz, S. & Salam, W. (٢٠٢١). Jordanian University Students' Attitudes toward Online Learning during the COVID-١٩ Pandemic and Lockdowns: Obstacles and Solutions. *International Journal of Learning, Teaching and Educational Research*. ٢٠(١), ١٤٢-١٥٩, January. <https://doi.org/10.266٨٠٣/ijlter.20.1.8>
- Marriot, N., Marriot, P., & Selwyn. (٢٠٠٤). Accounting undergraduates' changing use of ICT and their views on using the

- internet in higher education-A Research note. *Accounting Education*, 13(4), 117-130.
- Matteucci, M. C., Tomasetto, E., Mazzoni, P. , Gaffuri, P., Selleri, P& Carugati, F. (2010). Supporting online collaboration: Drawing guidelines from an empirical study on e-tutors. *Procedia – Social and Behavioral Sciences*, 2(2), 32270- 32273.
- McPherson, M & Nunes, M. B. (2004). *The role of tutors as an integral part of online learning support*. Retrieved from: http://www.eurodl.org/materials/contrib/2004/Maggie_MsP.html
- McShane, K. (2000). The online academic: Case study narratives of change and resistance. *Proceedings of Ascilite Conference, Coffs Harbour* Retrieved from http://www.ascilite.org/conferences/coffs00/papers/kim_mcschane.pdf
- Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of evidence-based Practices in online learning: A meta-analysis and review of online learning studies*. U.S. Department of Education Office of Planning, Evaluation, and Policy Development Policy and Program Studies Service Center for Technology in Learning, obtained July 2, from www.ed.gov/about/offices/list/opepd/ppss/reports.html
- Mothibi, G. (2010). A Meta-Analysis of the Relationship between E-Learning and Students' Academic Achievement in Higher Education. *Journal of Education and Practice*, 7(9). ISSN 2222-1730 (Paper) ISSN 2222-288X (Online)

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

- Muhammad A, Kainat A. Online learning amid the COVID-19 pandemic.: Students' perspectives. *Journal of Pedagogical Sociology and Psychology* ٢(١): ٤٥-٥١. eric.ed.gov/?id=ED٦٠٦٤٩
- Nair, I., & Das, V. M. (٢٠١٢). Using technology acceptance model to assess teachers' attitude towards use of technology as teaching tool: A SEM approach. *International Journal of Computer Applications*, ٤٢(٢), ١-٦.
- Nurohmat (٢٠٢١). The Effect of Online Learning on Students' Learning Achievement (Overview of Learning English Achievement). *Jurnal Ilmu Pendidikan (JIP) STKIP Kusuma Negara* ١٢(٢), ١٦٥-١٧١.
- Osgerby, J. (٢٠١٣). Students' perceptions of the introduction of a blended learning environment: An exploratory case study. *Accounting Education*, ٢٢(١), ٨٥-٩٩.
- Owston, R., York, D., & Murtha, S. (٢٠١٣). Student perceptions and achievement in a university blended learning strategic initiative. *Internet and Higher Education*, ١٨, ٣٨-٤٦ <https://doi.org/10.1016/j.iheduc.2012.1>
- Oxford Group, (٢٠١٣). *Blended learning-current use, challenges and best practices*. From <http://www.kineo.com/m/0/blended-learning-report-202013.pdf>. Accessed on ١٧ Mar ٢٠١٦.
- Packham, G., Jones, P., Miller, C.,& Thomas, B. (٢٠٠٤). Perceptions of effective e-moderation: A tutor's viewpoint. Proceedings of the *Networked Learning Conference, Lancaster University*, ٥٠٤-٥١١.
- Papp, R. (١٩٩٨). Student perception & knowledge about information technology: A computer attitude and experience survey

- to measure changes. *Journal of Education for Management Information Systems*, ٩(١), ٥٤-٦٢.
- Paulsen, M. F. (١٩٩٥). *Moderating educational computer conferences* In Z. L. Berge & M. P. Collins (Eds.), *Computer mediated communication and the on-line classroom in distance education* Cresskill, NJ: Hampton Press (٨١-٩٠).
- Progress Report, *European Commission for implementation of Education & Training* (٢٠١٠). Online document, Retrieved February, ١٧ from <http://europa.eu.int/comm/education/policies/٢٠١٠/doc/info٢٠٠٤.pdf>
- Picciano, A., & Seaman, J. (٢٠٠٧). *K-١٢ online learning: A survey of U.S. school district administrators*. New York, USA: Sloan-C.
- Powell, A. (٢٠١٤). *INACOL Blended Learning Teacher Competency Framework. The International Association for K-١٢ Online Learning*, <http://www.inacol.org/>
- Rani, D (٢٠١٦). *Academic Achievement Of Adolescents In Relation To Intelligence, Study Habits, Home Environment and Attitude Towards E-Learning*. Doctoral Dissertation. PANJAB University Chandigarh.
- Reay, J. (٢٠٠١). *Blended Learning-a fusion for the future. Knowledge Management Review*, ٤ (٣), p. ٦.
- Roffe, I. (٢٠٠٢). *E-learning: Engagement, enhancement and execution. Quality Assurance in Education*, ١٠(١), ٤٠-٥٠. <https://doi.org/١٠.١١٠٨/٠٩٦٨٤٨٨٠٢١٠٤١٦١٠٢>
- Rogers, E. M. (٢٠٠٣). *Diffusion of innovations* (٥th Ed). New York: Simon & Schuster, Inc.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

- Rosenberg, M. J. (٢٠٠١). *Online learning, strategies for delivering knowledge in the digital age*. New York: McGraw-Hill.
- Salmon, G. (٢٠٠٠). *E-moderating. The key to teaching and learning online*. Koganpage.
- Salmon, G. (٢٠٠٣). *E-moderating: The key to teaching and learning online*. London: Routledge Falmer
- Sangwan, A., Sangwan, A. & Punia, P. (٢٠٢١). Development and Validation of an Attitude Scale towards *Online Teaching and Learning for Higher Education Teachers*. *TechTrends* (٢٠٢١) ٦٥:١٨٧-١٩٥.
<https://doi.org/10.1007/s11028-020-00561-w>
- Satuti, J., Sunaryanto & Nuris, M. (٢٠٢٠). Does Student Satisfaction Mediate the Correlation between E-Learning Service Quality, Academic Engagement and Academic Achievement? *Journal of Accounting and Business Education*, ٥(١), September.
- Schwarz, N. (٢٠٠٧). Attitude construction: Evaluation in context. *Social Cognition*, ٢٥(٥), ٦٣٨-٦٥٦.
- Selim, H. M. (٢٠٠٧). Critical success factors for e-learning acceptance: Confirmatory factor models. *Computers & Education*, ٤٩(٢), ٣٩٦-٤١٣.
- Shahsavari, T., & Sudzina, F. (٢٠١٧). Student satisfaction and loyalty in Denmark: *Application of EPSI methodology*. ١٩, ١-١٨.
- Salmon, G. (٢٠١١). *E-moderating: the key to teaching and learning online* (٣rd ed.). New York, NY: Routledge.
- Shraim, K., & Khlaif, Z. N. (٢٠١٠). An e-learning approach to secondary education in Palestine: opportunities and challenges.

Information Technology for Development, ١٦(٣), ١٥٩-١٧٣.

- Simpson, O. (٢٠٠٢). *Supporting Students in Open and Distance Learning* (٢ ed.). London: Kogan
- Smith, B., Caputi, P., & Rawstorne, P. (٢٠٠٠). Differentiating computer experience and attitudes toward computers: an empirical investigation. *Computers in Human Behavior*, ١٦, ٥٩-٨١
- Smith, T. C. (٢٠٠٥). Fifty-one competencies for online instruction. *The Journal of Educators Online*, ٢(٢), ١-١٨.
- Smyth, S., Houghton, C., Cooney, & A Casey, D. (٢٠١٢). Students' experiences of blended learning across a range of postgraduate programs. *Nurse Education Today*, ٣٢(٤), ٤٦٤-٤٦٨. <https://doi.org/10.1016/j.nedt.2011.05>
- Soleymanpour, J., Khalkhali, A. & Reayatkoonandeh, L. (٢٠١٠). The impact of ICT-based teaching on sustainable learning of experimental sciences. *Iranian Journal of Information and Communications Technology in Education Sciences*, ١(٢): ٧٧-٩١.
- Spector, J. M., & de la Teja, I. (٢٠٠١). *Competencies for online teaching. ERIC Digest*. ERIC Clearinghouse on Information and Technology. Syracuse: NY. Retrieved on ١٥ May ٢٠١٣ from <http://www.eric.ed.gov/PDFS/ED4٥٦٨٤١.pdf>.
- Stacey, E., & Gerbic, P. (٢٠٠٧). Teaching for blended learning: research perspectives from on-campus and distance students. *Education and Information Technologies*, ١٢, ١٦٥-١٧٤.
- Steinmayr, R., Meißner, A., Weidinger, A. F., & Wirthwein, L. (٢٠١٤). Academic Achievement. *Oxford Bibliographies*. March, (٢٢). <https://www.oxfordbibliographies.com/view/document/obo->

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

- Suri, G., & Sharma, S. (٢٠١٦). Investigation of Teacher's attitude towards e-learning-a case study of Panjab University, Chandigarh, India. *Gyan Jyoti E-Journal*, ٦(٣), ١-١٠.
- Tallent-Runnels, M. K., Thomas, J. A., Lan, W. Y., Cooper, S., Ahern, T.C., Shaw, S. M., & Liu, X. (٢٠٠٦). Teaching courses online: A review of the research, *Review of Educational Research*, ٧٦(١), ٩٣-١٣٥.
- Tegegne, K. (٢٠١٤). The influence of e-learning on the academic performance of mathematics students in fundamental concepts of algebra course: The case in Jimma University. *Ethiopian Journal of Education and Sciences*, ٩(٢), ٤١-٦٠. <https://www.ajol.info/index.php/ejesc/article/view/١١٦٩٨٣>
- Teo, T. (٢٠٠٩). Modeling technology acceptance in education: A study of pre-service teachers. *Computers and Education*, ٥٢, ٣٠٢-٣١٢.
- Teo, T. (٢٠١١). Factors influencing teachers' intention to use technology: Model development and test. *Computers and Education*, ٥٧(٤), ٢٤٣٢-٢٤٤٠.
- Tian, H & Sun, Z. (٢٠١٨). *Academic achievement assessment: Principles and Methodology*. ١st ed. ISBN- ١٣:٩٧٨-٣٦٦٢٥٦١٩٦٦.- ٦٦٢-
- Tsai, C.W. (٢٠١٠). Designing appropriate blended courses: A students' perspective Cyber psychology, *Behavior, and Social Networking*, ١٣(٥), ٥٦٣-٥٦٦
<http://dx.doi.org/١٠.١٠٨٩/cyber.٢٠٠٩.٠٣٣٥>
- Ullah O, Khan W, Khan A. (٢٠١٨). Students' attitude towards online learning at a tertiary level. *PUTAJ-Humanities and*

- UNESCO. (٢٠٠٩). Trends in Global Higher Education: Tracking an Academic Revolution. Paris: A Report Prepared for the UNESCO World Conference on Higher Education.
- Uzunboylu, H. (٢٠٠٧). Teacher attitudes toward online education following an online in-service program. *International Journal on E-learning*, ٦(٢), ٢٦٧-٢٧٧.
- Van den Berg, H., Manstead, A. S. R., van der Pligt, J., & Wigboldus, D. H. J. (٢٠٠٦). The impact of affective and cognitive focus on attitude formation. *Journal of Experimental Social Psychology*, ٤٢, ٣٧٣-٣٧٩.
- Venkatesh, V., Morris, M.G., Davis, G. B., & Davis, F. D. (٢٠٠٣). User acceptance of information technology: *Toward a unified view. MIS Quarterly*, ٢٧(٣), ٤٢٥-٤٧٨.
- Wakefield, A.B., Carlisle, C., Hall, A.G., & Attree, M.J. (٢٠٠٨). The expectations and experiences of blended learning approaches to patient safety education. *Nurse Education in Practice*, ٨(١), ٥٤-٦١.
<http://dx.doi.org/10.1016/j.nepr.2007.04.007>
- Wang, M., MacArthur, D. A., & Crosby, B. (٢٠٠٣). A descriptive study of community college teachers' attitudes toward online learning. *Tech Trends*, ٤٧(٥), ٢٨-٣١.
- Wasserman, E & Migdal, R. (٢٠١٩). Professional Development: Teachers' Attitudes in Online and Traditional Training Courses. *Online Learning*, ٢٣(١), ١٣٢-١٤٣.
doi:10.24059/olj.v23i1.1299.

Blended Learning Competencies

Dr. Hanan Ahmad Abdel-Hafez Mahmoud

- Weller, M. (٢٠٠٧). *Virtual learning environments: Using, choosing and developing your VLE*. London: Routledge Taylor and Francis Group.
- Westera, W. (٢٠٠١). Competences in education: a confusion of tongues. *Journal of Curriculum Studies*, ٣٣(١), ٧٥-٨٨.
- Williams, P. E. (٢٠٠٣). Roles and competences for distance education programs in higher institutions. *American Journal Education*, ١٧(١), ٤٥-٥٧.
- Wolf, P. D. (٢٠٠٦). Best practices in the training of faculty to teach online. *Journal of Computing in Higher Education*, ١٧(٢), ٤٧-٧٨.
- Workman, M. (٢٠٠٥). Expert decision support system use, disuse and misuse: a study using the theory of planned behavior. *Computers in Human Behavior*, ٢١(٢), ٢١١-٢٣١.
- Yar, C. Y., Asmuni, A., & Silong, A. D. (٢٠٠٨). Roles and Competencies of Distance Education Tutors in a Public University. *Malaysian Journal of Distance Education*, ١٠(١), ٢١-٣٩.
- Zabadi A, Al-Alawi A. (٢٠١٦). University students' attitudes towards e-learning: University of Business & Technology (UBT)- Saudi Arabia-Jeddah: A Case study. *International Journal of Business and Management*.; ١١(٦): ٢٨٦-٢٩٥. DOI: ١٠.٥٥٣٩/ijbm.v١١n٦
- Zayton, H. (٢٠٠٥): *A New Vision in E-Learning*. Dar Alsolateyah for Education. Riyadh.

