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Dr. Atta Gebril
IRB chair, The American University in Cairo
2046 HUSS Building
T: 02-26151919
Email: agebril@aucegypt.edu



Institutional Review Board
The American University in Cairo
AUC Avenue, P.O. Box 74
New Cairo 11835, Egypt.
tel 20.2.2615.1000
fax 20.2.27957565
Email: aucirb@aucegypt.edu

The American University in Cairo

Graduate School of Education (GSE)

Implementation of Blended Learning in an Egyptian Continuing School of Education:
Stakeholder Views.

A Thesis Submitted by
Nada Ammar Ezzatlo

Submitted to the Department of International & Comparative Education

December 12, 2019

In partial fulfillment of the requirements for
The degree of Master of Arts
in International & Comparative Education
has been approved by

Name of supervisor: Dr. Teklu Abate

Thesis Supervisor Signature 

Affiliation: GSE - AUC

Date 12.12.19

Name of first reader: Dr. Mustafa Toprak

Thesis first Reader Signature 

Affiliation: GSE - AUC

Date _____

Name of second reader: Dr. Theodoros Zervas

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Degree: (check one) Master's Doctoral

Title of Dissertation: Implementation of Blended Learning in an Egyptian Continuing School of Education: Stakeholder Views

Date of Graduation (Month Year): Fall 2019

School and Department: Graduate School of Education/International & Comparative Education Department

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Running head: A CASE STUDY ON THE IMPLEMENTATION OF BLENDED
LEARNING EDUCATION: STAKEHOLDERS' VIEWS

The American University in Cairo

Graduate School of Education (GSE)

A Case Study on the Implementation of Blended Learning Education: Stakeholders'
Views

A Thesis Submitted to

The Department of International and Comparative Education

In partial fulfillment of the requirements for the degree of Masters of Arts in
International and Comparative Education

By Nada Ammar Ezzatlo

Under the supervision of Dr. Teklu Abate Bekele

Fall 2019

Acknowledgment

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Abstract

An Egyptian school for further education affiliated to a higher education institution, offered a blended learning course for continuing education learners. However, it was decided after the first week, that the planned blended courses would proceed but through using flipped learning technique. In addition, the instructors would attend professional development trainings on implementing blended learning prior to the following term. Accordingly, a qualitative study was conducted to understand the implementation of blended learning addressed and to know the views on the effectiveness of the professional development training sessions delivered to the blended learning instructors. Semi-structured interviews were conducted with 17 participants. The theoretical frameworks used in this case study are the community of inquiry by Garrisons (2017), and the diffusion of innovations by Rogers, (2003). In addition, the data was analyzed through content analysis where themes were identified to answer the following questions; 1. How was blended learning education diffused as an educational innovation at University Y and at the Further Education School?; 2. What are the stakeholder's views regarding the implementation of blended learning education at the Further Education School?; 3. What are the participant's views on the relevance of the professional development training facilitated to the instructors to address their needs? The results revealed the process of and the views on diffusing blended learning in the university till it reached its' affiliation. The instructors' shared areas of satisfactions and areas of concerns regarding the relevance of the professional development training they attended were identified. The findings may aid higher education institutions in understanding the vitality of professional development and the reasons for success and failure in implementing new educational innovation.

Keywords: blended learning, professional development, education innovation, adult learning, further education.

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Introduction

According to Bowen et al., (2014) online learning provides opportunities for cost saving innovations as the channel in this case can cater for larger number of students and less face-to-face interaction with the instructors which can reduce the labor cost. Even though online courses can provide a “bend in the cost curve” as the enrollment of students may increase, still there are challenges regarding the efficacy of teaching and learning in a digital world (Bowen et al., 2012).

Rick Beyer, the managing partner of an education investment firm, argues that the future of higher education depends on innovation since that higher education is on a long-term deflation because of the tuition fees (Doss, 2015). Educational institutions have increased their cost for the purpose of enhancing their educational services which in return forces the educational institutions to increase the prices that are paid by the consumers who are the students and their parents. Through time, this led to the students and family's debt where they try to cover for their sons and daughter's college fees. A good example of which is the low enrollment rate in some universities on behalf of the students since there are other alternatives for education like online education and virtual classrooms. This situation forces educational institutions to innovate in order to provide a good quality education that can meet student's expectations since the consumers- in this case the parents and the students- are looking for the return of investment for their college degree (Doss, 2015).

Innovation can be defined as an implemented and adopted novel way of education that contributes to add value to the competitiveness of education (Bajzikova & Lasakova, 2013). It is a trend that has expanded throughout the past five years where the institution replaces traditional mode of implementation. It is the availability of new technological possibilities and demand led based on the social or the market needs. One means of innovation in education is to implement technology in education (Bajzikova & Lasakova, 2013).

According to Bajzikova & Lasakova, (2013) adolescents and young adults today have been introduced to technology since their early childhood. Thus, universities need to adjust to these students needs and consider education technology as an innovative alternative to the current education system (Bajzikova & Lasakova, 2013). The ideas that drive innovation are the need to provide an effective education at the university level and the need to create a better working force that would be able to compete in the market and workforce. Innovation in education is remarked by knowing the educators, the learners, and the content taught and learned in addition to the location of where the learning experience takes place. Therefore, in order to increase educational resources, the content, the goals, the educational environment and its mechanism, it's crucial to empower the professors through professional development, have an accreditation that support innovation in education, redesign the human's resources functions, and refine the funding formulas to be result oriented rather than process oriented (Bajzikova & Lasakova,2013).

In addition to the students who require easy access and an added value for education, there are several social groups and stakeholders who require changes to the traditional university education; university governance and management who expect innovation and progress in society, academic personnel who anticipates the development within their fields of expertise, administrative personnel who claim for the right to professional development to provide adequate support for the faculty and learners, employers who expect a better workforce, and finally, the state and governmental institutions waiting for a positive impact on the economy and improvements to the national image (Bajzikova & Lasakova,2013).

Bath and Bourke, (2010) explain that an innovative method of education technology is blended learning education. Blended learning provides a lot of advantages that enhance the learning experience for both the learner and the instructor. It expands the opportunities for learning through the different course activities and facilitates communication, marking, assessment submissions and feedback. The learners are more engaged and motivated through interactivity and collaboration in both face to face and virtual classrooms (Bath & Bourke, 2010).

Another advantage is that blended learning offers highly individualized and self-managed learning experience for the university student. There is broadly acknowledged understanding that integrating both prototypes - e-Learning and face to face learning - ensures flexibility of access and use of knowledge. Such a blend offers the combination of varied social interaction patterns in synchronous or asynchronous scenarios that meet different needs and learning styles (Medina, 2018). The definition of blended learning in this case study is adopted from the university chosen for research purposes. The university defines blended learning as the mixture between online and face to face education where from thirty to fifty percent of the course is delivered online and the other percentage of the course is delivered face to face.

In this chapter, the background about the case study chosen for research purposes is explained. First, the research context section explains the context of the research where a background about the university and about the affiliation is provided for a better overview. Then, the following sections provide an explanation on the research problem as well as the purpose of this research and its' significance. There is a section that includes the operational definition needed where the researcher provides a definition on professional development. Finally, the research questions are articulated and the theoretical framework chosen are presented with an elaboration on the rationale for choosing them.

Research Context

In this section, the context of the case study is explained. First, there is a brief introduction about education in the Egyptian context, and the relation of professional development in education to it. Then, the backgrounds about the university and the affiliation chosen for research purposes are provided. The backgrounds include the titles chosen for both the university and the affiliation for confidentiality. Later, there is an elaboration on the services provided to the teachers and the students. Furthermore, there is a background about the staff and the instructors in the affiliation.

Over the past 10 years, some Egyptian institutions have shifted to online tuition which has comprised countless changes and challenges for faculty (Barsoum, 2014). Moreover, the changes that are occurring in technology nowadays might require continuous assessment for the needs of the faculty to undergo continuous professional development. Conducting needs assessment provides a rationale for selecting approaches that determine priorities to utilize the resources and to address the identified needs. Decision makers might sometimes have to take rapid decisions to address different needs under stressful conditions which might prohibit careful analysis for the valuable information. However, assessing the needs for professional development may guide the proper planning for professional development programs. Thus, evaluating the current state of the institution is the first step for assessing the current needs (Barsoum, 2014). This explanation can be related to the case study chosen here.

This research focuses on an Egyptian Further Education School that is affiliated to an Egyptian higher education institution in Egypt. For confidentiality, this higher education institution will be referred to as University Y. The Further Education School in this case study is affiliated to University Y. The Further Education School provides several certificates for continuing education learners from different fields like teaching and learning, project management and business education. In general, the school has 15,000 enrolled students per year. The student body includes 23% high school and undergraduate students, 77% graduate students. The average age of the students is around 28 from different educational and professional backgrounds.¹

Most of the faculty in this school are part-time instructors who are also practitioners and professionals in their field of expertise. Each department in the Further Education School provides several professional development opportunities for teachers as well as training to ensure a good quality of implementing eLearning. The Further Education School used in this case study ensured to deliver training sessions to teachers who will teach blended learning courses for the first time as a mean to implement. The

¹ Source 1: The source of this data will not be mentioned for confidentiality.

sessions delivered are facilitated by another department at University Y campus that will be addressed to as the Education Technology Center for confidentiality.

University Y defines blended learning as the mixture of online and face-to-face teaching where the percentage of face-to-face classes and online classes vary according to the class context, as the online tasks and interaction become part of the learning and teaching process. By the end of the academic year 2018-2019 the Education Technology Center assisted in introducing the blended learning technique to one of the departments at the Further Education School that is affiliated to University Y that is used as a case study for the current research. The department's title is the Business department.

In spring 2019, the Business department in this Further Education School took the initiative to implement blended learning classes to some of the business courses that are offered to adult business learners. The first blended certificate was launched for adult learners who are aiming at obtaining a business administration certificate. Before this, a committee was formed where the department Assistant Head, department Consultant and some of the selected, well qualified instructors met to discuss the methods of implementation. Then, the institution proceeded with the implementation phase by inviting the instructors to redesign the courses with the help of the Education Technology Centre to be taught in a blended format. However, after the implementation, the department faced several obstacles that led to an intervention and a professional development was facilitated for the faculty on the pedagogies of blended learning education.

Research Problem

The purpose of this section is to introduce the problem that the affiliation faced during the implementation of blended learning education. Having a better understanding of the problem provides a highlight on the purpose of the research as well as its significance.

Despite the preparations for launching blended courses, after one week of starting the course, the planned blended courses were changed to be flipped classroom instead in some of its' classes. A business instructor reported that this occurred after the course

started and the learners attended the first two sessions -the first was face to face and the second was online. In the flipped classroom technique, the students were asked to prepare by reading the online material prior to attending the face to face class abandoning the virtual or online classroom experience. Therefore, there was no online class during that time, and all the teaching time was converted be face to face again. So, the blended courses got shifted to be traditional courses again, and one of the courses was totally cancelled.

However, the courses were delivered again in a blended learning format on the second round of spring 2019. Then, in July, 2019 a professional development was facilitated for the instructors to help in solving the problem mentioned. These decisions led to the researcher's purpose to investigate the addressed case study.

Research Purpose

In this section, there is an elaboration on the purpose of this research. The explanation includes the rationale for focusing on the phase of implementing blended learning innovation in higher education, and on the professional development designed and delivered for the instructors.

It is understandable that implementing any new education innovation may lead to some obstacles during the implementation phases (Khan et al., 2012). Thus, the purpose of this research is to introduce the views of the stakeholders at University Y and at the Further Education School on the implementation of blended learning education. The views may present the barriers faced to implement blended learning education as an innovation. In addition, there is a focus on the role of professional development for a better implementation of blended learning and to face these barriers. This purpose is fulfilled by answering the following research questions presented in the following section

Research Questions

In this section, the research questions are presented. There is a total of three research questions. The focus of the study is also explained.

To have a better understanding of the case addressed, the researcher investigated the process of implementing blended learning at University Y in general and at the Further Education School in particular. In addition, there is a focus on the effectiveness of the professional development training facilitated for the instructors as one of the steps of implementation. The purpose is to understand whether the professional development training addressed the needs of the instructors to better teach blended learning courses and whether the elements of community of inquiry by Garrison, (2017) were considered. Furthermore, to know the stakeholder's views on the implantation of blended learning education at University Y and at the Further School of Education.

These elements are thoroughly explained in the theoretical framework section since they include the elements needed to have an effective professional development through a community of inquiry. The elements are the social presence, cognitive presence and teaching presence. Accordingly, the case study aims at answering the following;

1. How was blended learning education diffused as an educational innovation at University Y and at the Further Education School?
2. What are the stakeholder's views regarding the implementation of blended learning education at the Further Education School?
3. What are the participant's views of the relevance of the professional development training facilitated to the instructors to address their needs?

-Were the elements of social, cognitive and teaching presence considered in the pedagogy, the content and the assessments of the professional development training

Significance of the Study

According to Barhoum, (2014) who conducted research at a prominent university in Egypt, the full-time faculty members revealed their awareness of three main roles including teaching, research and professional services. Some faculty perceived these services as tasks that drain time. However, they regarded research and teaching as the prominent tasks required from the faculty. Most of the faculty agreed that professional

development was essential for developing the teachers' role which they regarded as the role that requires continuous professional development especially that "the teaching quality currently offered is far from ideal". Professional development was regarded as essential because of personal needs or beliefs. Barsoum, (2014) mentioned that some members of the faculty wanted to acquire tenure but they prioritized their scholarly growth rather than their development as instructors.

On the other hand, other instructors regarded professional development as a means to tackle deficiency in certain skills. Thus, it is essential to highlight the impact of professional learning communities on student learning and teaching practice (Barsoum, 2014).

This study will add to the body of literature about a Further Education School in Egypt as well as to the body of literature of instructor's professional development on blended learning in higher education institutions. There is extensive research that is conducted on how teachers design and deliver their content and learning outcomes while implementing a blended learning approach in their course design. This applies also to the research conducted on the methods of diffusing blended learning education in higher education institutions. However, there is very limited literature on the obstacles that the administration and the instructors face during the implementation and how this triggers the need for constant professional development events and curriculum designing to ensure sustainability and consistency. The literature is limited on these implementation in the Egyptian higher education context in general, and in further education in particular. The significance of this study, lies in contributing to filling the gap in the literature explained above. Additionally, it would be an aid to administrators and trainers who aim at having a better understating of the areas of satisfaction and concerns of implementing blended learning as a new innovation especially in the chosen department of this case study. It is believed that the findings will give a perception of the teaching faculty and administrators about the barriers that may be found on adopting blended learning as an educational technology, and suggestions on how to face those challenges.

Operational Definitions

The operational definition that needs to be defined in this study is professional development. The term is defined due to the broad meaning of it and since this is what the participant's views reflect on. Therefore, the key factors that define teaching an effective professional development

Professional Development

At Cambridge Assessment International Education, professional development is defined as the process that leads to developing the educators and instructors professional thinking and practice by enhancing their quality of both learning and teaching. There are other terms that are associated with the professional development term. In this case study these terms are teachers learning, and a professional learning community (Cambridge, 2017). Teachers learning can be defined as a process that leads to the teachers change in knowledge, skills, and attitudes, while professional learning community is the communities that are formed in order to support colleague teachers. This community can be formed online and offline (Cambridge, 2017). Thus, the definition of professional development to the researcher in this case study is to provide professional development sessions delivered to teachers in order to increase their knowledge, and change their beliefs and attitudes about a certain practice or innovation. Another role is to form a community of teachers as learners through this professional development that can be formed online or offline with the purpose of supporting and helping each other.

In this study, an effective teacher professional development to teach blended learning classes is produced. This definition will rely on the mentioned above definitions of blended learning, and professional development. Thus, an indicator of an effective teachers' professional development is the teachers' positive attitude that is developed during the sessions in order to implement blended learning. In addition, it's the teachers deep understanding of the content within these professional development sessions. Their understanding of the content addressed and of how blended learning should be reflected in three factors. First, their ability to relate what is being shared in the professional development sessions to their own knowledge. Second, their ability to apply the

innovative techniques shared in the professional development and diffuse them in their teaching methodology. Finally, their ability to create and interact in a community of learning teachers who are there to help and support each other in general, and in teaching blended learning in particular. These indicators are adopted from Garrisons, (2017) theory of community of inquiry.

Theoretical Frameworks

This study will rely on two theories; Community of Inquiry (COI) by Garrison, (2017) and the Diffusion of Innovations (DOI) by Rogers, (2003). Garrison explains that the three main elements which are social presence, cognitive presence and teaching presence tend to shape the learning experience in a community of inquiry. These elements will govern whether they were indicated or not in the online teaching strategies and course design that the faculty of Continuing Education did prior to the professional development and during the consultation sessions with the Education Technology team. Furthermore, they will govern the pedagogy and the content used during the professional development facilitated by the Education Technology Center.

The results will only be presented from the participant's perspectives as the researcher did not obtain the consent to check the blended courses itself in terms of content, pedagogy or assessment. The same applies to the professional development training. Thus, the indicators and the elements of COI may be used to measure their effectiveness from the participant's perspective only. This is considered as a limitation that is further elaborated in the limitation sections.

Despite Garrison, (2017) success in identifying the elements of Community of Inquiry and how faculty should have facilitated or currently are facilitating an effective learning experience for the students, there should be a level of understanding on how and why the institution itself implements a new innovation. Thus, Rogers, (2003) DOI theory is used here since it introduces the phases of adopting and implementation of a new education innovation where faculty development and course design are one of its pillars for an effective implementation. Thus, DOI will be used to better explain how the steps

taken by the institution to implement blended learning at University Y, especially at the Further Education School.

In this study, Rogers, (2003) theory will help in identifying the steps and process of institutions in the diffusion of blended learning as a new innovation and how the faculty development is one of its steps for an effective implementation. Rogers, (2003) DOI will explain the role of the top management and policy makers at University Y in adopting and implementing blended learning in its institution and in its affiliation, the Further Education School. On the other hand, Garrison, (2017) theory of COI will be used to evaluate the role of the Education Technology Center in facilitating the professional development and consultation sessions for the blended learning instructors, and in helping the instructors to design the material for blended courses. The theory could help evaluate the course design and the teaching strategies used in order to teach online. In a nutshell, these theories will help in giving a deeper understanding on the issues presented in this case study.

Diffusion of Innovations Theoretical Framework

Diffusion of Innovation Defined

The term diffusion according to Rogers, (2003) refers to the procedures that are undergone to communicate innovations through specific means to members of a certain social system over a period of time. The procedure involves novel ideas that are invented, diffused or adopted spontaneously or in a planned technique aiming at enabling social change. Communication refers to the process of sharing information between individuals aiming at reaching mutual understanding. Human communication involves linear conception where two or more people use pieces of information that would facilitate corresponding several meanings in various events. According to Rogers & Kincaid (1981), diffusion comprises a distinct kind of communication when the messages are about new ideas. There is a degree of uncertainty because there could be other alternatives to the innovations. This uncertainty develops from the incompetence to foretell the structure or the format of the novel matter. On embracing innovations, potential adopters seek some degree of possible benefits even though the advantages

might not be clear cut initially. Novel matters or innovations are relevant and describing them as novel differ from one individual to the other as a certain object or idea is perceived new according to the individual's reactions to it. Novelty implicates knowledge, persuasion or *a choice* to accept an innovation. Individuals or social systems may reject Innovations if proved uneconomical or harmful. Moreover, adopters may find an innovation desirable or disagreeable according to the situation. Furthermore, the same innovation could be estimated differently by different adopters depending on the situation (Rogers, 2003).

Incompatible innovations require adopting new value systems prior to adopting any innovation. This might be a slow process in case the attributes of adopting innovations are not fulfilled. Thus, the availability of attributes of innovation warrants the easy adoption of innovations. Relative advantage, compatibility, complexity, trial-ability and observability are the 5 attributes of innovations (Rogers, 2003).

Elements of Diffusion of Innovation

a-Innovation

Innovations in any field could be regarded as relatively better if compared to previous states. Advantages may include economic and social factors in addition to how satisfactory innovations could be for individuals. Furthermore, it would be a privilege when innovations are compatible and consistent with the needs of potential adopters, social values and previous experiences. Moreover, simple new ideas are adopted more rapidly than complex ideas since they are easily understood contrary to complex innovations which might require, if perceived difficult, new skills for adoption and implementation. In all cases, the first phase of implementation should include a trial phase to experiment the application of the innovation on a limited basis. Finally, the observability of an innovation to other members in the society stimulates peer discussions about new ideas which arouse the probability of reinvention (Rogers, 2003).

b- Communication Channels

Communication channels involve, in addition to the elements of innovation, individuals who have the knowledge and experience to use it. There is a possibility that

there might be other individuals who are inexperienced or who do not have enough knowledge about the issue. Thus, communication channels that connect these two groups should be available. These groups of people should be homophile and heterophily. Homophile refers to the similarities that could occur between the members of the group. These similarities may include beliefs, educational or socioeconomic background. On the other hand, heterophily refers to the differences between the individuals who are involved in the implementation of innovations. These differences may jeopardize the diffusion of innovations (Rogers, 2003).

c-Time

The third element in successful diffusion of innovation is the factor of time. Innovations pass through several phases. Each stage consumes different periods of time. The phases include dispersion of knowledge, persuading individuals to accept the innovation, taking the decision to implement the innovation and finally confirming the success of the innovation. These phases may take different periods of time depending on the adopters and the rate of adoption of the community, the organization or any other structure (Rogers, 2003).

d- Social System

The fourth element comprises the social system which includes individuals, groups, organizations or structures that constitute the boundary which encompasses the diffusion of innovation. All these groups could be working in integrated units to achieve common goals (Rogers, 2003). Different groups play different roles in the diffusion of innovations. The norms of the social systems, the opinion of the change agents and the leaders and the type of innovation may affect the implementation of innovations. At the beginning only a few innovators adopt the innovation. Then, more and more people get involved in the different adoption phases. Later, the rate of adoption begins to decrease as fewer individuals join during the different phases of adoption (Rogers, 2003).

The Steps to Innovation Decision

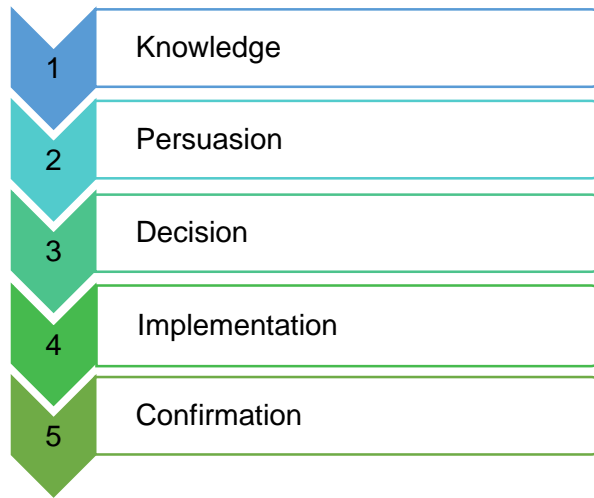


Figure 1. The steps to innovation decision Adopted from Diffusion of Innovation (Rogers, 2003, pp. 170).

The first step for the diffusion of innovation is the knowledge step. In this step, people in the organization have a level of awareness regarding a new innovation that could be implemented to the organization. The following step is the persuasion stage where the participants who were introduced to the innovation start persuading other participants and ask them whether the innovation could be implemented. Here, the level of doubt gets decreased in comparison to the level of knowledge where the participants feel worried about such an implementation. This doubt and the state of being worried goes back to the level of novelty of the innovation itself to the participants. Despite this, having peers consent always plays a role in confirming or declining a novel idea like innovations. This decision to use the innovation or not to use it is the decision stage where the participants start conducting a market research on the innovation and getting to know its applicability to the organization. Next, is the implementation phase where the organization decides on a strategic plan to implement the innovation and evaluate it during the implantation. Finally, the confirmation stage is reached when enough time is spent and the innovation becomes part of the organization that it loses its novelty (Rogers, 2003).

Criticisms towards Diffusion of Innovation?

Individual Blame and System Blame

Rogers, (2003) explains that during the implementation of an innovation, there might be a failure and the innovation may not be implemented successfully as planned. This is where individual blame may occur. Individual blame is the state where an individual claim the responsibility of the problems faced during the implementation of the innovation goes back to the individual and not the system. The opposite of this is the system to blame. The system blame has the tendency to accuse the system of the problems faced during the implementation. Rogers, (2003) explains that this is a frequent mistake and a problem in diffusion of innovations. The frequent error is that sometimes individual blame is more stressed upon more than the system blame (Rogers, 2003).

Community of Inquiry Theoretical Framework

There are success key indicators for a successful higher education experience. This successful educational experience is measured through a model of Community of Inquiry (COI). A group of individuals who collaborate and engage in a purposeful critical reflection and discourse is defined as COI. The purpose of COI is to engage in a mutual understanding and construct personal meaning. This model depends on creating a deep meaning of learning experience collaboratively and constructively through the development of three interconnected elements; *social presence*, *cognitive presence*, and *teacher's presence*. The COI model assumes that education and the learning experience occurs through communication that aids in the interaction of those elements (Garrison, et al., 2000).

The *social presence* element means that the participants in this community are able to identify with the community itself. They are able to communicate freely in a safe environment, and they are able to project their own knowledge and personality on others through interpersonal relationships. The *cognitive presence* is an important element in critical thinking which is a process and an outcome that is presented regularly as one of the goals of all higher education institutions. It is the point reached where learners are able to construct and confirm meaningful ideas through a sustainable reflection and

discourse to ensure their sustainable presence in a learning community. *Teaching presence* is another element that is reflected in the design and in the direction of the cognitive and social process during the learning experience. This element is a mean to an end; it is presented to support and improve the social and cognitive presence in order to realize the educational outcomes that are educational and worthwhile. *Teaching presence* consists of two main functions. The first is the design of the educational experience itself. This includes, for example, the initial introduction of the course content to the learners, as well as the selection and the organization of the course content and design. It also includes the assessments and the activities used in this course design. The second function is the responsibility that is shared between some or all of the learners as well as the teachers. This means that the higher education learners are expected to share with the teacher in facilitating the learning experience (Garrison, et al., 2000).

There are different challenges that different studies faced methodologically while creating and applying indicators that may reflect the quality of and meaningful approaches to learning. However, the challenge is to identify indicators that are general enough to be used effectively while analyzing a transcript, yet specific enough to be of a valid meaning. For instance, having a cognitive presence is vital in an educational environment since participants in this environment should be safe and comfortable enough in relating to each other. However, this element is not enough in order to ensure a sustainable community of learners. This learning community is better encouraged within a social-emotional environment that is of a communicative transaction. Additionally, a high social presence is going to lead to a high level of commitment on behalf of the participants as an important factor to develop higher order of thinking and collaboration (Garrison & Vaughan, 2008).

There are several categories for each of these indicators in each element. The categories for a cognitive presence are the triggering event, exploration, integration and resolution. For the social presence, the categories are emotional expressions, open communication and group cohesion. Finally, the teaching presence is categorized into

instructional management, building understanding and in direct instruction (Garrison & Vaughan, 2008).

For *cognitive presence*, one of the categories is triggering events which can occur through introducing topics that are of interest to the participants, or general topics that are not directed to certain questions or a narrowed down teach-defined topics. The triggering events encourage the sense of puzzlement and aids in recognizing problems during the learning experience. Another key category is exploration which allows a personal reflection and social exploration in a collaborative environment where triggering ideas are introduced through discussion, and finally integrated through application. Examples of this are suggestions, brainstorming and the ability to draw conclusions.

Furthermore, when learners have the space to reflect and investigate on a topic, they become able to construct new meanings from new ideas. This can be called as an integration where students develop the skills of convergent, ideas connection and creating solutions.

Additionally, applying new ideas, testing solutions and defending solutions are examples of resolutions which is the third category in the cognitive presence. In resolution, participants apply new ideas on real life problems. The indicators of the *social presence* lie in the learner's ability to project their own characteristics through emotional expression, group cohesion, and open communication. The three categories can be implemented through sharing and showing emotions during the learning experience, and by using humor during communication and through self-disclosure (Garrison, et al., 2000).

Finally, the three categories for *teaching presence* are instructional management, building understanding and direct instruction. The instructional management is facilitating the discourse lies in defining and initiating discussion topics. Identifying shared personal meaning in the community of inquiry is an indicator for the category of building understanding. Lastly, direct instruction is the actual subject knowledge of the

instructors that are shared with the learners through questioning, direct feedback, and focused discussions to introduce new knowledge to learners.

The success of such experience lies in creating and sustaining engaging learning environments. Generally speaking, online education and blended learning offer more opportunities for learners to access education as geographic and temporal distances are removed. On the other hand, the institutional revenues and the national or even international recognition could be increased (Garrison, 2017)

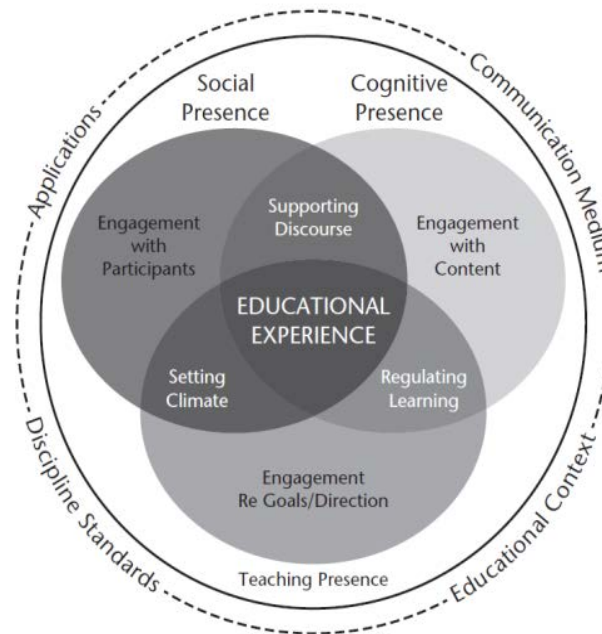


Figure 2. Elements of community of inquiry framework. (Garrison, 2017, pp.25)

Table 1. The Elements of Community of Inquiry Framework

The Elements of COI Framework		
Elements	Categories	Indicators
Social Presence	Personal Affective	Self-projection/ Expressing Emotions
	Open Communication	Learning climate/ risk-free expression
	Group cohesion	Group identity/ collaboration
Cognitive Presence	Triggering Events	Sense of puzzlement
	Exploration	Info Exchange
	Integration	Connecting Ideas
	Resolution	Setting Curriculum and Methods
Teaching Presence	Design and Organization	Shaping Constructive Exchange
	Direct Instruction	

Categories and indicators of community of inquiry (Garrison, 2017, pp.28).

Summary

This research focuses on the implementation of blended learning education at University Y in general, and on the Further Education School affiliated to it. The purpose is to present the stakeholders views on the implementation of blended learning by first identifying the phases of implementing blended learning education at the university, and by knowing the participant's views on the support provided through the professional development training facilitated by the Education Technology Center team. The participants will give their perspective in relation to the level of their engagement in the training through social presence, and cognitive presence. In addition, the participants will provide their insight on the role of the trainer during the online and the face to face sessions. Effective professional development training is defined in this case study as the level understanding on behalf of the instructors of the content addressed and of how blended learning should be. The theoretical frameworks used in this case study are COI by Garrison, (2017) in order to identify the elements of an effective community engagement in professional trainings, and DOI by Rogers, (2003) in order to identify the stages of diffusing blended learning education in University Y and in the Further Education School.

Literature Review

This section there is an overview about the literature viewed for the purpose of having a better understanding on blended learning education, and the process of diffusing blended learning education as an innovation in higher education. Moreover, better knowledge about the impact of professional development and its role in implementing innovations was obtained through the selected readings mentioned. The main key words that directed this literature review are “blended learning”, “higher education”, and “professional development”. These keywords were used on EBSCOHOST, Google Scholar databases and the American University in Cairo database. The literature review section includes the perspective on the innovation of education in higher education in general, and then discusses the challenges and barriers that may be met during the implementation of education innovations. After this, a definition of blended learning education is presented as well as the cases of in the developed and the developing countries where of success and of a challenge as well. Case studies that implemented blended learning as an innovation in higher education are introduced. The literature review addresses the successful implementation of blended learning in the United States of American (USA), Western Australia, China, and United Arab Emirates (UAE). These cases are chosen as examples to compare and contrast the factors for successful implementation of blended learning and the causes that might jeopardize this technique in higher education. The role of the institution in supporting the academic faculty through professional development is highlighted. Finally, literature review includes a section about faculty development and its importance. Finally, the literature review is concluded by the identified gap in the literature and the position of this study along with the gap.

Innovation in Higher Education

In Switzerland, participants gathered in May, 1998 in order to identify the major obstacles that higher education in the United States and Western Europe faced during this time. It was agreed then that globalization and development in information and communication technology are changing the way knowledge is produced and dispersed while redefining geographical boundaries and regular learning environments (Hirsch & Weber, 1999). Thus, several challenges are being met in higher education, especially during the implementation of any education innovation or education technology (Hirsch & Weber, 1999). It is identifiable that till this day higher education institutions still face challenges especially in adopting education technology.

Despite the need for innovation and technology in higher education, there are a lot of barriers that could hinder the implementation of new educational technology in higher education (Bajzikova & Lasakova, 2013). This occurs in both developed and underdeveloped countries. These barriers can be classified into internal and external barriers. External barriers are like the lack of equipment, unreliability of the equipment, lack of technological support and resources. The internal includes the organizational culture, and the teacher's beliefs about technology and their readiness to change (Khan et al., 2012).

Additionally, not all lecturers and professors are for implementing new education technologies, while there are others who would resist change, especially if they lack the necessary skills to rely on online and technology-based education. Other professors who are able to implement new education technology pointed out that it is interesting for students unfortunately it's time consuming and requires sufficient training and self-confident in personal skills that some lecturers do not have (Bennett, 2001). One of the innovations that were implemented and are being implemented in higher education is blended learning education.

Blended Learning in Higher Education

According to Rooney, (2003), the American Society for training and development identified blended learning as one of the top ten trends that appeared in the knowledge delivery industry. Ever since that period blended learning has gained momentum. The development has been integrated in training centers and educational organizations educational organizations (Rovai & Jordan, 2004). Beach, Sorcinelli, Austin, and Rivard, 2016), Eddy and, (2006) stated that nowadays the institutions involved in higher education are currently facing several internal challenges including but not limited to the changing nature of the students and the role of the faculty which is becoming increasingly complex. Higher education institutions need faculty who are enthusiastic, knowledgeable and effective enough to meet expectations, produce revenue, and share in activities while maintaining the highest level of perfection in their daily work (Beach et al., 2016). Thus, increasing the efficacy and the productivity of the faculty is inevitable as this is reflected on the quality of teaching and learning as the faculty members should respond to the inevitable shift of focus from the teacher to the learner through using the emerging technologies which go along with the learners needs (Brancato, 2003). However, the institutions should plan cautiously for this shift, and should measure the faculty's' readiness to adopt blended learning education.

In Egypt, El-Deghaidy and Nouby, 2008 conducted a study in an Egyptian school of education to determine the effectiveness of the blended learning cooperative approach. Pre-service preparatory science teachers on their third academic year were introduced to different teaching strategies and skills in addition to different techniques of assessments in order to teach blended learning courses (EL-Deghaidy & Nouby, 2008). The study is an experimental study as the courses were delivered by the same instructor using both blended learning cooperative approach for a group of students, and face to face for approach for another group. The researchers measured the attitude of both the pre-service teachers and the learners towards the e-Learning experience through blended learning cooperative approach and via the traditional approach (EL-Deghaidy & Nouby, 2008). The results showed that the pre-service teachers developed a positive attitude towards e-

Learning in general, and blended learning in particular. For instance, some of the pre-service teachers mentioned that their computer skills improved, and one of the teachers stated that the experience of blended learning environment made her feel like a “modern teacher” (EL-Deghaidy & Nouby, 2008). The pre-service teachers mentioned that the implementation of blended learning experiences aided in enhancing their skills due to the various types of interaction with learners. This includes interaction in both the traditional and online classroom (EL-Deghaidy & Nouby, 2008). As for the learners' perspective, those who attended classes using blended learning cooperative method indicated a positive attitude towards learning through the blended learning environment, as they had more space to accommodate to their own learning speed (EL-Deghaidy & Nouby, 2008).

Dintoe, (2019) found that the use of technology among early adopters proved that using educational technology among early adopters is important as it paves the way for proper implementation of different scenarios of eLearning. Developed countries such as Canada and the United States, the United Kingdom and Australia have moved more fully towards activating online learning while there are other universities in the developed countries who are still trying to adopt new education technology with success and with challenges as well (Dinote, 2019).

For instance, in a study published by the Informing Science Institute on their website in 2019 in Vietnam aimed at implementing blended learning (Nkhoma, et al., 2019). The researchers aimed at identifying how the learning experience of the students was affected by the proper design and implementation of blended learning with special focus on the importance of online connectivity on using blended learning (Nkhoma, et al., 2019). The results show that the students were able to relate between what was done online and the in-class activities which kept them motivated to complete the activities. Seventy-eight percent of the hits on the course pages accessed learning resources which indicated, according Nkhoma C., Nkhoma M., Thomas, Long, and Le, (2019) that the students spent time accessing the online activities which could be an indication that the material provided online is engaging (Nkhoma, et al., 2019). Therefore, it was concluded that blended learning pathway would greatly benefit for developed countries to learn

better and empower them to be more independent as self-directed learners who are able to utilize their time wisely (Nkhoma, et al., 2019).

Contrary to this, the University of Botswana which is located in Southern Africa, has initiated the strategy of online learning in 2001 but little depth of research including the experience of the early adopters has affected the route for positive and successful implementation (Dinote, 2019). The challenges they faced in Botswana revealed the status of using technology in developing countries. Sometimes the lack of accessibility to the available technology might hinder the implementation of the innovation (Dinote, 2019). In addition, forcing the faculty into implementing a technology without understanding the context results in changing teaching moods to traditional instead of learner-centered mode provided through using technology. The review suggests that integrating technologies successfully requires exerting effort on three main areas including compatible technology, the faculty of early adopters and the social system including university administrators (Dinote, 2019). Supporting the faculty through the implementation process increases the chances of adopting the pedagogy (Dinote, 2019).

If faculty is not given time to practice the technology before actual implementation, they tend to use strategies that are related to their traditional teaching experiences. Compared to the faculty in developed countries, the faculty in developing countries dreads using technology as they have been previously working in a non-technology environment (Dinote, 2019).

Despite this, not only do the developing countries face challenges, but also the developed ones. The International Journal of Educational Technology in Higher Education, published in 2019 a report by Alizadeh, et al., (2019) on evaluating a blended learning course in a Japanese University course of English for general academic purposes (EGAP) attended by undergraduate Japanese students. The course aimed at improving the students' practical English skills so that they would improve their conversational skills (Alizadeh et al., 2019). The initial sessions were offered through face to face orientation. The students attended ten online sessions and five face to face sessions. The course was offered on two rounds. The first round did not meet the standards. However, after making

amendments before the second round, the instructors succeeded in designing a course that meets the requirements of Higher Education Course Design Rubric (Alizadeh et al., 2019).

The essential standards that were not met included how the students can get started and where to find the different course components. Moreover, the students were unable to relate the objectives of the course and the activities provided online. Add to this that evaluating the learners' work was not tied to the course grading policy (Alizadeh et al., 2019). Furthermore, there was no clear plan for the instructor for providing feedback or responding to the class members. Finally, the information provided for the learners were sometimes not sufficient enough to facilitate for the learners using all technologies required on taking the course (Alizadeh et al., 2019).

Therefore, it can be concluded that though there is a possibility of success in implementing blended learning in developing countries, there is a vital need to meet the expected challenges that may be faced during the adoption and implementation of blended learning education in higher education. To do so, it is vital to refer to the successful cases of diffusing blended learning education.

Successful Cases on Blended Learning Diffusion

Morris, (2018) suggested that online learning can provide transformational learning experiences. However, according to his article about digital learning for higher education, there still is a need to change the uses and the perceptions about online learning for higher education. He suggests that the possibilities for online learning experiences can be of more benefit to learners not just the basic forms of learning. These benefits could be reflected on both individuals and organizations (Morris, 2018). However, the professional development required for the faculty and admins involved could pose a threat to the success of implementation (Deming, et al., 2015). Below are cases found in the literature that explain the organizations role in order to prepare faculty and students for blended learning implementation, and the challenges that were faced during the implementation are highlighted. The cases used here are successful cases from developed countries.

Western Australia

Curtin University in Western Australia is an ecosystem university that was empowered through faculty and students support in order to implement blended learning. Embedded policies and practices were diffused in order to support the blended learning experience for both the academics and the students (Lim & Libing, 2016). The policy framework that shaped the role of blended learning to transform the educational system had four main principles; flexibility, global outreach, scale automation and shared learning experience. One of the various policies that affected this model and what affected the process of implementation is the professional development. The university has four faculties; Health Science, Science and Engineering, Business School and Humanities and the center of Aboriginal studies. To support educators during the curriculum design and assessment, each faculty had its own learning management team who are dedicated to help educators in professional development, planning and implementing the blended learning curriculum redesign, and in transforming courses into online delivery format (Lim & Wang, 2016). There are certain guidelines that governed this support to achieve sustainable outcomes. The three guidelines that are related to professional development are creating an engaging teaching and learning practices online, encouraging academic staff for self-directed professional development and providing consistent advice to academic teaching staff to ensure students online engagement (Lim & Wang, 2016).

To further support the implementation of Curtin's' university model of teaching, the Curtin Learning institute was established in order to provide academic and professional learning opportunities that are designed and delivered to help the learners (teachers) in the transformation of teaching practices. Additionally, the institution provides support for academic career development enhancing the quality of teaching and supporting the new teaching faculty (Lim & Wang, 2016). The center provided one-on-one workshops and faculty led research regarding the effect of blended learning. The one-on-one sessions have five strategies in order to embed an engaging learning experience to

each faculty. The method includes timely feedback to instructors on the performance improvement, the different teaching strategies to personalize and support diverse students' needs, and providing strategies on the method of applying higher order thinking activities, creativity and problem solving. These workshops are offered by the central learning and teaching directorate. Within each of the faculty in this university there is a support Faculty Learning Engagement Team (Lim & Wang, 2016).

Finally, the faculty led research that is a year-long funded project encouraged the academics to be more involved in research related to the sustainable teaching strategies and supported the student's engagement in this research. In Curtin Business School, for instance, a management teaching faculty developed an exemplary unit which encompassed process and templates that are suitable for blended learning modes for different courses in various locations (Lim & Wang, 2016).

It is noticeable that the institution cares about the faculty involvement through professional development and research engagement. It is worthy to note that the students also play a role in engaging in research as part of their student's engagement on campus. This can be related to the community of inquiry by Garrison, et al., (2013) and the importance of the social presence where the educators and the learners are able to identify with the institution, they are part of and where they have a safe environment to reflect and add their inputs through research engagement, for the students, or professional development for the teachers. Thus, the institutions role in effectively adopting and implementing blended learning is visible through the facilities provided for the teachers through the mentioned means to encourage an effective blended learning implementation. Contrary to the following case in the USA, this case did not directly state the initial stages it went through in order to reach this level of implementing blended learning.

United States of America (USA)

Porter et al., (2014) conducted a research on 11 higher education institutions in the U.S. that adopted blended learning education. These institutions received a Next Generation Learning Challenges grant in order to facilitate moving from the awareness and exploration phase of implementation, to the phase of adoption and early implementation (Porter et al., 2014).

The study used Graham, Woodfield, and Harrison, (2013) framework for institution blended learning adoption. The authors conduct a prior study where they proposed three stages in their framework to institutionalize blended learning education in higher education institutions. The first stage is awareness and exploration, the second stage is adoption and early implementation and the third stage is mature implementation and growth. In addition, they identified three key factors that any education institution needs in order to ensure an effective and successful implementation through the three phases. The key factors are strategy, structure and support (Graham, et al., 2013).

The first stage of blended learning implementation is the awareness/ exploration stage. In this stage the institution becomes aware of the importance of blended learning education. At this point, the faculty starts to explore the methods of implementation despite the limited support on behalf of the institution administration. The second stage is the adoption and early implementation stage where blended learning is finally adopted for experimentation while new policies are proposed by policy makers in order to support it. Finally, stage three is the final stage of implementation where the university reaches a well-established blended learning strategies, structure and support to facilitate an effective implementation (Graham, et al., 2013).

On one hand, the strategy includes the policies that governs the implantation of blended learning, as well as its purpose and forms of advocacy and level of implementation. On the other hand, structure is the key factor that issues like pedagogies and the need of technology infrastructure as well as the administrative infrastructure are formed to facilitate the blended learning implementation. Finally, support is the technical,

pedagogical support as well as faculty incentives that are essential for implementation (Graham, et al., 2013).

Thus, the study examines the phase of transition from awareness and exploration to the adoption stage in order to first determine the institutional strategies structure and support that marks the key factors that could aid administrators in higher education institutions to identify their progress while transitioning from the first phase to the second. In addition, to present more details on the issues that administrators should consider for an effective transition through the implementation of blended learning education.

In this case study, the author used a purposive case selection. The two universities American Association of State Colleges and Universities (AASCU) and the University of Central Florida (UCF) received NGLC grant with the purpose of aiding in enhancing blended learning adoption 20 other higher education institutions While AASCU resorted to conferences and networks to reach this purpose, UCF depended on facilitating blended learning adoption by holding seminars to share pedagogies and designs of blended learning like the assessments, methods of data collection and the workshops and trainings needed for faculty development (Porter et al., 2014).

On the one hand, UCF hosted total number of live webinars and provided different suggestions on blended learning implementation via online blended learning Toolkit. On the other hand, AASCU referred to the conference delivered for networking and finding opportunities of collaboration the 20 intuitions the implemented BL. Eleven out of twenty institutions confirmed their willingness to report their results for research purposes. It is worth to note that all of the blended learning courses are implemented on undergraduate degree students and the number of students in these students range from 2,992 to 20,371 students (Porter et al., 2014).

Later in a different study, a group of researchers in a University at Idaho, investigated the impact of strategy, structure and support in order to implement blended learning. According to the researchers' framework, this university was in its early adoption and implementation phase of blended learning (Porter, et al., 2016). The

researchers adopted Grahams, et al., (2013) framework that is adopted from Rogers, (2003) diffusion of innovations theory. This framework followed Rogers, (2003) theory about the five stages that are followed in order to implement a new innovation explained in the theoretical framework section in this study. It followed Rogers', (2003) suggestion on the different types of adopters, like early majority and late majority of adopters. The framework adopted constitutes three stages for implementing blended learning as an innovation. The stages included the awareness and exploration phase, the adoption and early implementation, and the mature implementation and growth. (Graham, Woodfield, & Harrison, (2013) adds strategy, structure and support as three main elements that an educational institution should provide for a successful implementation (Graham, et al., 2013). The university in Idaho has provided professional development training to the newly hired faculty to implement blended learning on its evening courses and entry level courses to graduates and undergraduates. The training session included the structure development representatives, and academic technology representatives who are there to assist the academic faculty who need help in designing or implementing blended learning courses (Porter, et al., 2016).

An online survey was conducted on experienced faculty members in order to measure the following factors; to know the innovation adoption category for each academic professor, and to identify the factors that motivated the faculty to adopt blended learning. Later, semi structured interviews were conducted with some of the participants in order to identify how the institutions decision to implement blended learning would impact their own adoption of implementing blended learning, and how do those interviewees respond to the institution's strategy, structure and decisions (Porter, et. al, 2016).

In terms of strategy, identifying the purpose is one of the main elements in the strategy of implementation. Eleven interviewees explained that the alignment of purpose may have an influence if it is supporting the learners. Sixteen interviewees stated that the purpose of the institution has an influence on them (Porter, et. al, 2016). Additionally, the authors found out that in order to advocate a new adoption, faculty advocates would be

better advocate than university administrator and department administrators. Faculty members as fellow teachers” have been there”. Meaning that they had a first-hand experience in teaching and implementing blended learning experience. Interviewees noted that some leaders may only have financial motives while advocating for a new method of implementation. However, faculty members are of a more interest. Furthermore, administrators need to consider providing a common definition to the level of technology integration that is expected to be achieved (Porter et al., 2016). In terms of structure, interviewees reported that the administrative structure decisions impact how they implement innovation in education regarding the infrastructure, evaluation and professional development. Interviewees expressed that in order for students to have a good quality education by implementing technology, there should be an infrastructure that aids them in having an interesting and effective learning experience. A fast internet, for instance, as well as a learning management system are essential components for a strong infrastructure for implementing blended learning (Porter et al., 2016).

One aspect that is of the same importance is professional development as part of the institutions support. It has been noted by the participants show an interest in how the professional development impacts the implementation of blended learning. Thirteen employees reported that they prefer sitting for a one-on-one professional development session since its more personalized and less socially intimidating for those who refrain from asking questions in front of other trainees. Other faculty members were expecting this one-on-one assistance while designing the blended learning courses (Porter, et. al, 2016).

On the contrary, 23 participants mentioned that they would prefer group professional development sessions to allow the space to learn from each other by sharing input and experiences. Furthermore, an instantaneous feedback is important through the sessions to measure the trainee’s performance. Despite that some participants explained that they are against online training since they need face to face interaction, some participants supported it. They explained that professional learners’ providers may consider different methods to address the faculty’s needs and preferences. Additionally,

professional development designers may provide resources online so that the faculty may access at anytime, anywhere according to their own schedule (Porter et al., 2016).

Finally, it can be concluded that professional development for the faculty is an important factor as a method for supporting the academic faculty. In addition, the teachers view on the importance of communication and a safe space to share their input whether this is done online, through face to face or group sessions, or through teachers for being there before as mentioned above, it proves the importance of teachers' presence, social presence and cognitive presence that is presented in a community of inquiry explained in the theoretical framework section of this study. The framework used in this case study, is similar to the framework used to study in China.

China

Another successful implementation of blended learning in several higher education institutions in China. A longitudinal case study was conducted on five universities (Lim & Wang, 2016). The researchers examined the role of adopting and implementing of blended learning in five universities during the period between 2002-2015. Like the case in the University in Idaho, this study adopted Graham et al., (2013) framework that is adopted from Rogers', (2003) in order to explain the stages of implementing blended learning, and to identify the strategy, structure and support provided as part of this framework. All of the chosen universities asserted the importance of having an infrastructure, adopting different professional development styles, establishing consistent policies and partnerships which all affected the process of the implementation throughout the three stages (Lim & Wang, 2016).

The focus here is drawn on the support provided during the stages of implementation to emphasize the significance of the faculty development. During the transition from one stage to another, the focus on the teacher training and development was of a high concern. For instance, during the early implementation stage at the Educational Technology Institute at Tsinghua University, (THETI) the professional development and technical support was offered with special focus on the platform usage

for the academic faculty who indicated their personal interest in blended learning education (Lim & Wang, 2016).

The Nanchang University was in its adoption stage from 2003 to 2008. The university offered no incentive for the faculty who used blended learning as an educational technique. From 2009-2011, nine workshops were offered on each semester to serve the needs of the academic faculty and their diverse timetable. In the maturity stage, the university provided regular professional development for the academic faculty. In addition, it provided individual blended learning sessions to each college as a way to cater for individual differences and needs of the academic faculty (Lim & Libing, 2016). On the other hand, Yanzhou University started its adoption stage from 2007-2008. There was also no incentive structure to the academic for implementing blended learning, and the training was limited only to the teaching aiming at designing blended learning courses (Lim & Libing, 2016).

From 2009 to 2013, the university offered consultancy sessions by the university's educational technology center for teachers through emails, telephones while providing activities for the teaching caliber on how to develop an effective online teaching strategy (Lim & Libing, 2016). In the maturity stage, the institution from 2014-2015 provided ten professional development workshops that focused on identified themes and were delivered on every academic semester. Furthermore, weekly seminars were held for academic faculty staff according to their suitable time. Finally, twenty teachers were awarded yearly for their academic excellence in implementing blended learning courses (Lim & Libing, 2016).

According to these universities, it can be concluded that the continuous support for teachers' professional development impact the implementation and maturity of implementation of blended learning in higher education. Unlike the following case in UAE, China did not focus on the importance of Community of Inquiry during its implementation.

United Arab Emirates (UAE)

In a higher education institution in the UAE, a blended learning course was conducted for Masters level graduate students. The researchers interviewed the teacher of the course and three of the students of the mentioned course in order to validate a roadmap designed for educational institution who aim at implementing blended learning education. The outcome of the study confirms the effectiveness of the identified factors in terms of the teacher's role and students' characteristics. Examples of the successful best practices in this study are using the team building activities in order to improve the communication skills in class (Almansoori & Akre, 2016).

The researchers identified five main factors that impact the performance of blended learning. These factors are the characteristics of the students, the role of the students in the learning experience, the characteristics of the teacher, the role of the teacher, the importance of the social aspect and the course design of the course delivered. The course design of blended learning courses should include the course content that will be taught, the course material that will be used, and the class rules for clarity (Almansoori & Akre, 2016).

In addition, the course design should include the technology or the platform that will be used as well as the time consideration. Furthermore, the students are expected to have technical skills, the motivation to learn and communication skills. His/her role is to have cognitive presence, and high level of involvement online and in the face to face class. The teachers, on the other hand, should have the motivation to teach, enough e-learning experience as a teacher, and able to have various teaching styles that complement blended learning education. The role of teacher in this model is to provide sufficient amount of explanation and knowledge. In order to do so, an integration of independent learning and reinforcing pull learning are expected from the teacher. Teachers are expected to reinforce independent learning instead of lecturing or uploading a lot of material over discussion boards in order for the students to be able to work

independently to find answers. In addition, its expected from the teacher's balance between what they receive from the students and what they can actually share with them (Almansoori & Akre, 2016).

Thus, verbal discussions are more encouraged online and during the face to face sessions to allow students to share their knowledge and ideas. In addition, there should be an enrichment in the social aspect. It is advised to use social networking opportunities to build a community of learners between the learners and the educator through the different social networking mediums that are used nowadays like social media, and WhatsApp. However, there should be shared ethics and rules as well as violation policies in order to ensure having a safe environment during the education process (Almansoori & Akre, 2016).

It is worthy to note that having a Community of Inquiry that is used in the framework of this case study, is also asserted in the case in the UAE university. The teachers are required to build a community of learners through sharing beliefs, insights and inputs. The purpose of this is to facilitate the cognitive presence of the learners. In addition, teachers are advised to involve current topics during the session so as to allow the students to relate to current situations that are happening around them. Lastly, there should be a safe and comfortable online environment for the learners to participate. Finally, teachers are expected to have the willingness to adjust their teaching styles to cater for the individual differences of the learners during the online and face to face sessions (Almansoori & Akre, 2016).

Thus, it is expected from the institution to provide professional development sessions that can cover different teaching strategies to teach blended learning courses, and to be able to design courses, assessments and increase the class management skills online and offline (Almansoori & Akre, 2016).

Diffusion of Innovation in Developed Countries

On planning any course or professional development sessions that involves using technology the factors that enhance positive engagement should be put into consideration. In addition, continuous follow up is needed so that participants would be able to pick up on what was missed especially on diffusing trends that are related to information and communication technologies in developing countries (Armstrong, 2019).

Dintoe, (2019) reviewed literature on adoption and diffusion of technology innovations aiming at identifying how faculty are involved on diffusing innovations in higher education. Sources that have used diffusion of innovation theory Rogers, (2003) in the last decade were included on comparing literature thus, websites, books, conferences and journals were included. The main concern of the study was to understand the factors that influence diffusing innovations at a university in Botswana in comparison to other developing countries (Dintoe, 2019). Dintoe, (2019) found that the use of technology among early adopters proved that using educational technology among early adopters easily is important as it paves the way for proper implementation of different scenarios of eLearning. Supporting the faculty through the implementation process increase the chances of adopting pedagogy. If faculty is not given time to practice the technology before actual implementation, they tend to use strategies that are related to their traditional teaching experiences. Compared to faculty in developed countries, faculty in developing countries dread using technology as they have been previously working in a non-technology environment. The challenges they faced in Botswana revealed the status of using technology in developing countries. Sometimes the lack of accessibility to the available technology might hinder the implementation of the innovation.

Developed countries such as Canada, the United States, the United Kingdom and Australia have moved more fully towards activating online learning while The University of Botswana has initiated the strategy of online learning in 2001 but little depth of research including the experience of the early adopters has affected the route for positive and successful implementation. Forcing the faculty into implementing a technology

without understanding the context results in changing teaching moods to traditional instead of learner-centered mode provided through using technology. The review suggests that integrating technologies successfully requires exerting effort on three main areas including compatible technology, the faculty of early adopters and the social system including university administrators. Peer support could be regarded as the driver of continuous innovation which enables developing confidence and skills (Rogers, 2003).

Summary

This research focuses on the implementation of blended learning education at University Y in general, and on the Further Education School affiliated to it. The purpose is to present the stakeholders views on the implementation of blended learning by first identifying the phases of implementing blended learning education at the university, and by knowing the participant's views on the support provided through the professional development training facilitated by the Education Technology Center team. The participants will give their perspective in relation to the level of their engagement in the training through social presence, and cognitive presence. In addition, the participants will provide their insight on the role of the trainer during the online and the face to face sessions. Effective professional development training is defined in this case study as the level understanding on behalf of the instructors of the content addressed and of how blended learning should be.

Methodology

This section explains thoroughly the methodology used in this case study in terms of research methodology, the data collection techniques, data analysis method, the participant's types and backgrounds and the method of validity and reliability. the design used, the sampling technique, and the background of the participants. The research methodology section has a supported explanation of the rationale behind used narrative case study. Then, the data collection section explains the sampling technique, the data collection tool and the data collection procedure as well. Later, the data analysis section includes the method, tools and procedures for data analysis. A section for the participant's categories and backgrounds are also available. Finally, the ethical measures that were taken into consideration with an explanation on the researcher's role in this study are thoroughly explained.

Research Method

The study is a qualitative research approach, and the strategy used is a narrative case study where the shared information and perspectives of the participants are being interpreted. The qualitative method is a means of exploring and reaching a deeper understanding of the views given on a certain topic. It ascribes a social or human topic through different approaches. One of which is the inquiry-based approach. A case study is one of the qualitative strategies of inquiry used to investigate a certain activity or several individuals about the chosen topic of research (Creswell, 2012). In case studies, "the focus is on developing an in-depth understanding of a case, such as an event, activity, or process" (Creswell, 2012, pp. 477). Additionally, it relies on collecting data from a few numbers of participants so as to obtain their views. Finally, that data analyzed is usually more descriptive and thematic. Thus, researchers use text analysis and interpretations of the findings (Creswell, 2012).

The issue that is addressed here is the role of the professional development training sessions that has been delivered to the instructors and course designers of the blended learning as an educational innovation implemented on business courses for learners in an Egyptian Further Education School. The rationale for focusing on the professional

development training initially goes back to the researchers' interest in teacher's professional development, and to the importance vitality of professional development trainings to aid faculty and administrators in implementing innovation in education. According to the operational definition of professional development mentioned above, it should ensure that the teachers are aware of the method of implementing blended learning, and of the institution's strategy, support and structure are of a valid importance in order for the teachers to be aware of why and how the blended learning should be implemented.

However, understanding the process of diffusing blended learning education through the participant's views on this implementation enables the researcher in identifying the points of strengths and weaknesses of implementation in general, and of the professional development and institutional support for the instructors in particular.

In addition, listening to the instructor's strategies to teach in a blended format, and how they design the curriculum for blended learning courses is essential to ensure an effective implementation. Hearing the participant's views on these aspects helped in having a better view on the aspects that need to be modified and the elements of success identified in this case study.

Ethical Considerations and Protection of Human Rights

Prior to collecting the data, the International Review Board (IRB) approval was first obtained right after the acceptance of the proposal is confirmed by University Y affiliation, the Further Education School. In respect to the institution addressed, the approval on collecting data from the instructors was later obtained from the Director of Business Department in this case study. The Director approved sharing the instructor's emails.

However, the researcher had access only to the instructors who are teaching blended learning courses during the semester that the data was being collected, and since all of them have attended the professional development that is being reflected on in this case study. Its worthy to note that the Director, the Assistant Director and the Department Consultant were welcoming to be part of this research as well.

The department Director emailed all the instructors informing them that the researcher will contact them for an interview to collect their perspective on the blended learning education implemented in the department. The instructors had the choice to confirm their willingness to voluntarily be part of the research by sharing the mobile numbers to be contacted. Accordingly, the researcher contacted the participants via mails and phone calls and agreed to sit for a face to face interview according to the availability and convenience of the participants. Instructors who were not able to come on campus had a phone recorded interviews as per their consent.

Since the sampling technique used here is snowballing, the research had the ability to meet policy makers as well as the Education Technology team members and project leaders who helped in implementing blended learning at University Y in general, and at the Further Education School in particular. They also shared their willingness to share their insights on the implementation of blended learning at the Further Education School.

The role of the researcher in this case study is to record and report the views of those who were involved in the implementation of blended learning at the Further Education School. Accordingly, the researcher ensured to be neutral throughout the process of data collection, and while designing the tool of data collection as well. For instance, leading questions, for example or questions that may cause the participants discomfort were completely eliminated or restated to ensure their safety.

In the data analysis section, the researcher worked on summarizing these views without any interpretation or added personal perspective so as to present their answers exactly like how it was reported. In the discussion section, the researcher relied on best practices and academic resources to support the interpretations which are derived from being a praxis educator and trainer who obtained several credentials in teaching, training, and education that occurred by teaching and designing material for young learners, undergraduates and adults' learners in internationally recognized Egyptian private higher education institutions. Thus, it is vital to assert that the interpretations presented in the

discussion section only are impacted by being a professional academic educator and a lifelong learner.

Data Collection

This section includes a full description for the method of data collection. First, it will include the sampling technique that is used on choosing the participants. Then, the method of data collection is explained in terms of type, and the rationale for choosing this method. The data collection tool is discussed in this section as well as the data collection procedure that was underwent to collect data from the participants.

Sampling Technique

The sampling technique that was used in this case study is snowballing. Snowballing sampling technique is a way of purposeful sampling which occurs after the research begins. During the research, the researcher asks the participants to recommend other participants to be part of the data collection. This request can be asked during the interview with the participants or through informal conversations (Creswell, 2012). Snowballing technique in this case study is more suitable as the sharing participants are all working in the same department. The instructors have attended the same training sessions prior to implementation. Thus, it would be more feasible to contact the other participants through their colleagues.

Initially, an interview conducted with the departments' top management staff who provided the contact information of the instructors. Then, semi structured interviews were conducted with the instructors. The total number of the instructor's interviewed were 10 instructors. Three of them helped in tailoring the online material for the delivered business blended courses. Therefore, they were in contact with the instructional designers at the Education Technology Center for consultation and assistance in tailoring the online content of the courses. Thus, semi structured interviews were conducted with three members from the Education Technology Center.

The first was the former instructional design project leader who was responsible to assign and delegate tasks to the instructional designers and instruction technology designers at the Education Technology Center. The second was the Instructional

Technology Designer who was one of the team members who helped the instructors using online tools to teach online classes. The third was the current instructional designer manager who was also the trainer who facilitated the professional development for the instructors.

All of the participants reached were chosen according to their role in the implementation of blended learning at the Further Education School. This is in addition to their willingness to participate and according to their availability and accessibility.

The participant's backgrounds and roles in the implementation of blended learning are further described in the participant's section. In addition, the tool used for the data collection is explained in the next section.

Data Collection Tool

There are different methods to qualitative data collection. One of which is one-on-one interviews. In a qualitative interview, it's expected that the researcher records the participants' answers through taking notes or through using digital recording as in one-on-one interview, where the researcher interviews only one participant at a time (Creswell, 2012). In case the instructors or administrators may not be available to sit for face to face interviews, it can be done through the phone or through an online interview instead. The rationale for choosing semi-structured interviews is that it provides the interviewer with the chance to ask further questions for more clarification in order to reach precise and accurate answers from the participants.

Semi structured interviews are interviews that are used to gather qualitative textual data. It provides a balance between flexibility and focus since the researcher is able to ask open-ended interview questions while focusing on certain research domains to address. The descriptive data that is provided through this interview method reveals the personal experience of the participants by gathering enough information during the interview (Creswell, 2012).

During semi-structured interviews, the researcher usually develops concise, and short questions that gradually moves from general domains to more specific factors and

variables, and totally avoid leading questions. While forming the interview questions, the researcher is advised to not use questions that are used in negation. It's also advised to begin with simpler topics and ask the least-sensitive questions first, then move to more complex topics for a more sensitive topic. To do so, the researcher may use two types of questions; main theme questions, and follow up questions. In the main theme questions, the researcher asks questions that addresses the main content of the research. For instance, the researcher may ask about issues that the participants are already aware of (Kallio, et. al, 2016).

The designed questions are specified according to the information needed to answer the research questions presented in this case study. In addition, the questions are formed based on the theoretical framework chosen in order to identify the process of diffusing blended learning and of identifying the elements of community of inquiry used in designing the curriculum, teaching the blended courses and in providing an effective professional development on teaching blended learning courses as well as providing effective consultation sessions for the instructors. Some of the questions were modified according to the participants shared answers with the aim to have a deeper understanding on the shared answer and on building on the other participants answers as well.

The interview protocol and the interview questions used for data collection are included in the appendix section below. The duration of the interviews varied between the participant's background and role in the implementation, and based according to the participant's further elaborations to their answers. Most of the interviews did not exceed thirty minutes. For example, the interviews with the instructors lasted between thirty to fifty minutes. The interviews with the Former Dean lasted for thirty minutes. The staff top management at the Further Education School sat for almost sixty to eighty minutes' interviews. Finally, the professional development trainer sat for approximately eighty minutes' interviews, and the instructional design project leader and Instructional Technology Designer sat for only thirty minutes' interview.

There are seven interview protocols with semi structured questions used as tools for data collection. The introduction to the interviews was the same, however the questions addressed were different according to the needed information for the participants. The first is designed for the Dean of the Further Education School, the second is for the department consultant, and the third is for the Assistant Director and the Director of the Business department in the School. The fifth is for the instructors and the sixth is for the instructional designer's project leader and the instructional technology design team member. Finally, the last interview protocol and list of questions are used during the interview with the trainer who facilitated the professional development for the business instructors. During all of the interviews, the participants were asked to share their professional background and their role in the implementation of blended learning at the Further Education School. The questions used varied according to the position, and probes were used to further elaborate on their answers. The data collection procedure is furtherly explained in the following section.

Data Collection Procedure

Before conducting the semi-structured interview, an interview protocol was shared with the participants to have an overview of the purpose of the research. An interview protocol is a form designed by the researcher that contains instructions for the process of the interview, the questions to be asked, and space to take notes of responses from the interviewee.

An interview protocol is more than a list of interview questions; it also extends to the procedural level of interviewing and includes a script of what a researcher will always say before the interview, a script for what the researcher will say at the conclusion of the interview, the prompts for the interviewer to collect informed consent, and prompts to remind the interviewer of the information that she or he is interested in collecting. Interview protocols become not only a set of questions, but also a procedural guide for directing a new qualitative researcher through the interview process (Creswell, 2012).

Before recording the interviews, the research informed the participants about the interview protocol. At the beginning of the interviews, the researcher first introduced himself/ herself, and then got the participants consent signatures. Interviews that were conducted via recorded phone calls followed the same procedures. There were no faced problems during the technology-assisted interview. Therefore, it can be expressed that it was effective as well as the face to face interviews. Except that the participants who had the recorded phone interviews first received the consent form via email to be signed and shared with the researcher via mail prior to the interview. In addition, a better rapport was built and maintained with the participants who sat for a face to face interviews.

To ensure that the participants are sharing their insight in a safe environment, the interviews were conducted at the location of their jobs. Therefore, closed classrooms at the participant's job locations were reserved for the part-time instructors who did not a private office. On the other hand, all of the team members at the Education Technology Center and all of the top-management staff approved to conduct the interviews in the closed and private offices. Furthermore, all of the participants had the choice whether to record the interview or not. It is worthy to note that none of them rejected audiotaping the interviews, and a consent form was signed before starting the semi structured interviews. The participants kept a hard copy, and the other copy is with the researcher. The consent form is attached below in the appendix section. The researcher pointed out to the participants that the interview is being recorded and clarified the background about the research and the guidelines for the interviews. The participants were reassured that their answers are confidential.

During the interviews, the researcher made sure to take notes as a backup, and use probes for additional information that is related to the research focus. Five interviews with the instructors were conducted through a recorded phone call due to the participant's availability. All of the other interviews were conducted face to face. The consent forms were initially shared with them via email to sign and attach before the interviews. After the interviews, the participants received a thank you mail for sparing the time to be part of the research. Later, the word for word audio-transcripts MS word documents were shared

individually with all the participants via mail for verification. Finally, follow up interviews attempted later after verification to ensure detailed and accurate shared information. All the participants were informed with the same interview protocol. However, there are five instructors who did not show interest in participating. Three of which expressed that it is due to availability. In addition, the head of the Education Technology Center was also contacted, however it was not possible to sit for an interview as well and the reasons were stated. Follow up interviews were needed with the top management, the instructors and the team members at the Education Technology Center. Although the three top management staff at the Further Education School and two of the instructors were not available for a recorded face to face or phone call interviews, two instructors were available for a recorded phone call follow-up interview as well as the Instructional Technology Designer from the Education Technology Center. The follow-up interviews with the instructors lasted for approximately 15 minutes where they added more details about their backgrounds and elaborated on some of the answers shared during the face to face interviews. The follow-up interview with the Instructional Technology Designer lasted for extra thirty minutes where more details about the services provided for the instructors to tailor the online material were made clear.

Like mentioned earlier in the data collection tool section, the questions raised during the semi structured interviews were different according to the participant's background and role in the blended learning implementation. Thus, a total of seven interview protocols were designed and attached below in the appendix sections, and there is only one shared consent form that is approved by the IRB and stamped from the researchers' university.

Participants

This section will explain the number of participants who conducted the semi structured interview while explaining the categories they are classified into. The participants are classified into categories according to their professional position and their role in the implementation of blended learning education at the Further Education School. The total number of participants that sat for a semi structured interviews are 17 participants. It was expected to include more participants from the Education Technology Center upon obtaining the approval of the centers' head who was already contacted.

However, the approval was not obtained and thus the nine team members from the Education Technology Center were not interviewed. In addition, 6 other instructors were contacted, they are not included since they did not show interest in participating in this research by replying to the emails despite the department and the researcher's efforts. In this section, a detailed description of the participant's categories and professional and educational backgrounds are provided based on their shared answers during the semi structured interviews. The three categories that the participants are classified into in this case study relied on their position and their responsibilities and duties. They are classified into three categories; 3 participants from the Education Technology Center and 14 participants from the Further Education School; 4 of them are from the top management, 3 are subject-matter experts and business instructors and 6 are instructors only. Finally, the participants position, education background and their role in the implementation of blended learning education at the Further Education School are added.

Participants Categories

The faculty and staff who work in University Y are classified into two major categories. The first category includes staff who work in the Education Technology Center and helped in designing online curriculum, consult the faculty and in facilitating professional development training for the instructors. The second category includes two sub-categories which are the top management and the instructors and subject-matter experts who work in the Further Education School. The top management includes the School Dean, the Department Director and Assistant Director and the Department Consultant as well. The second subcategory includes the instructors and the subject matter experts who helped in designing the online material with consultation of the Education Technology Center consultant. Those subject matter experts taught traditional classes in the Business Department and teach the blended learning courses. On the other hand, there are instructors who have been working at the Further Education School before the implementation of the blended learning courses. However, their role in the blended learning courses was to only teach the learners in a blended format. The Director and the Assistant Director reported that the subject-matter experts were selected according to first, their evaluation in the department from the learners and the top-management, and according to their experience in the subject being designed. Most importantly, they were also chosen according to their consent and to their availability since all of the instructors, including the subject matter experts, are also practitioners who have their professional jobs and they work with the department only as part time instructors.

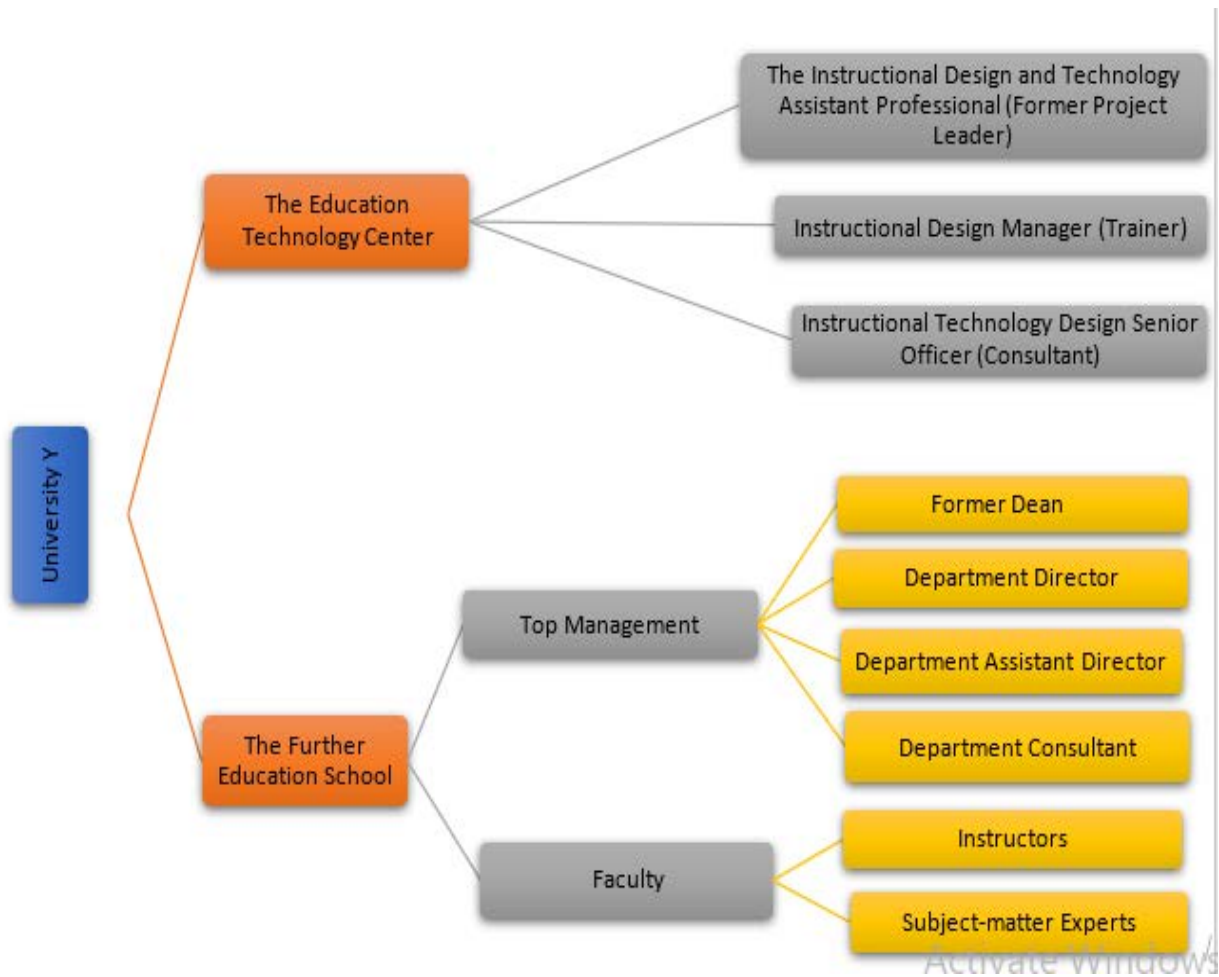


Figure4. The Categories of the Interviews Participants

Participants Background

This section introduces all of the participants interviewed in this case study. The three figures below include their position, education background and their role in the implementation of blended learning at the Further Education School. The first figure includes all of the background collected about the 3 team members who were interviewed in the Education Technology Center. The second figure includes the background information collected about the 4 top management participants at the Further Education School. Finally, the third figure has the details about both the subject matter expert as well as the instructors who taught blended learning, and attended the professional development training on blended learning education. It is worthy to note that no instructor taught in a blended format before. However, according to the department's rules to be hired as a business instructor, all instructors had to be certified as professional trainers from the Further Education School with at least 7 years of experience in the Business field.

The Education Technology Centre Participants

Table 1 <i>Education Technology Centre Participants</i>		
<u>Position</u>	<u>Educational and Professional Background</u>	<u>Role in BL Implementation</u>
<ul style="list-style-type: none"> ○ Instructional Design and Technology Assistant Professional 	<p>Education:</p> <ul style="list-style-type: none"> ○ BA in English Literature and Linguistics ○ MA in TEFL ○ PhD and MSc in Instructional Systems Technology 	<ul style="list-style-type: none"> ○ Assisted the Instructional Design Manager in evaluating and reporting on the latest trends in educational technology and blended learning. ○ Participated in the facilitation of an in-house professional development workshops and training ○ The project leader of the Further Education School who delegated tasks to instructional Designer to redesign the course material from traditional to be blended format.
<ul style="list-style-type: none"> ○ Instructional Design Manager 	<p>Education:</p> <ul style="list-style-type: none"> ○ B.A. in Journalism ○ MET in Education Technology <p>Former Positions:</p> <ul style="list-style-type: none"> ○ Instructional Designer ○ Adjunct Faculty ○ Course Builder ○ Senior Instructional Designer and Project Manager ○ Associate Director 	<ul style="list-style-type: none"> ○ Managed the instructional design team to design the blended professional development training program for the instructors at the Further Education School ○ Designed and delivered the professional development training designed for the instructors at the Further Education School
<ul style="list-style-type: none"> ○ Instructional Technology Designer 	<p>Education:</p> <ul style="list-style-type: none"> ○ B.A. in English Literature ○ M.A. in Linguistics ○ Ph.D. in Linguistics 	<ul style="list-style-type: none"> ○ Facilitated and Co-facilitated the instructor's consultation sessions and workshops. ○ Assisted and supported the instructors in developing effective methods for delivering instruction using appropriate technologies in face-to-face and/or hybrid classes

Further Education School Participants

Table 2 <i>Further Education School Top Management Participants</i>		
Position	Educational and Professional Background	Role in BL Implementation
<ul style="list-style-type: none"> ○ Former School Dean 	<p>Education:</p> <ul style="list-style-type: none"> ○ Ph.D. in Education (Testing and Evaluation) ○ M.A. in TEFL ○ M.Sc. in Solid State Science ○ B.Sc.: in Chemistry and Minor in Management <p>Former Position:</p> <ul style="list-style-type: none"> ○ English Department Head at the Further Education School 	<ul style="list-style-type: none"> ○ Suggested implementing blended learning education at the School ○ Monitored the process of diffusing blended learning education at the School
<ul style="list-style-type: none"> ○ Director 	<p>Education:</p> <ul style="list-style-type: none"> ○ M.A. in TESOL <p>Former Positions:</p> <ul style="list-style-type: none"> ○ Former Administrator at the Further Education School ○ Former English Language Instructor at the Further Education School ○ Former Business Instructor at the Further Education School 	<ul style="list-style-type: none"> ○ Supervised all of the operational activities at the department ○ Ensured quality of the blended courses offered ○ Monitored faculty members performance ○ Handled any problems or complains that had to do with the learners.
<ul style="list-style-type: none"> ○ Assistant Director 	<p>Education:</p> <ul style="list-style-type: none"> ○ Doctorate of Business Administration ○ Masters of Business Administration ○ B.A. in Pharmaceutical Chemistry and Clinical Pharmacy ○ Certified Performance Improvement Professional ○ Certified Professional Trainer ○ Certified Instructional and Designer 	<ul style="list-style-type: none"> ○ Helped in approving the designed courses ○ Selected the instructors to teach blended courses. ○ Selected the instructional material for the blended courses. ○ Handled the students and instructors' problems during the implementation.

	<ul style="list-style-type: none"> ○ Certified Talent Development Professional ○ Certified Business Administrator 	<ul style="list-style-type: none"> ○ Guided the instructors during the instructional process of blended learning education.
<ul style="list-style-type: none"> ○ Department Consultant 	<p>Former Experience:</p> <ul style="list-style-type: none"> ○ Former Part-time Business Instructor at the Further Education School ○ Business Program Coordinator at the Further Education School ○ Former Assistant Director of the Business Department at the Further Education School 	<ul style="list-style-type: none"> ○ A member of the task force formed in order to implement blended learning education. ○ Guided the department during all the stages of implementation of blended learning education.

Table 3 <i>Business Instructors Participants in Further Education School</i>		
<u>Participant</u>	<u>Educational and Professional Background</u>	<u>Role in Blended Learning Implementation</u>
<ul style="list-style-type: none"> ○ Instructor 1 	<p>Education:</p> <ul style="list-style-type: none"> ○ B.A. in Pharmacy ○ M.A. in TESOL ○ Certified English Language Teacher <p>Current Professional Position:</p> <ul style="list-style-type: none"> ○ Part-time English Instructor ○ Undergraduate Academic English Instructor at University Y <p>Part-time English Instructor at Further Education School (Since 2016)</p>	<ul style="list-style-type: none"> ○ Attended the Professional Development Training for Blended Learning Instructors. <p>Was selected to teach Blended Learning Academic English Course at the Further Education School</p>
<ul style="list-style-type: none"> ○ Instructor 2 	<p>Education:</p> <ul style="list-style-type: none"> ○ B.A. in Linguistics ○ Professional Certified Trainer <p>Current Professional Position:</p> <ul style="list-style-type: none"> ○ Part-time Business Instructor 	<ul style="list-style-type: none"> ○ Attended the Professional Development Training for Blended Learning Instructors. ○ Taught the Organization Behavior and Interpersonal Skills Blended Course at the Further Education School
<ul style="list-style-type: none"> ○ Instructor 3 	<p>Education:</p> <ul style="list-style-type: none"> ○ Professional Certified Trainer <p>Former Professional Positions:</p> <ul style="list-style-type: none"> ○ Head of Marketing Department 	<ul style="list-style-type: none"> ○ Attended Previous Departmental Meetings on Blended Learning Tools ○ Attended the Professional Development Training

	<p>Current Professional Position:</p> <ul style="list-style-type: none"> ○ Freelance Business Consultant ○ Part-time Marketing and Consumer Behavior Instructor (Since 2016) 	<ul style="list-style-type: none"> ○ Taught Marketing and Consumer Behavior Blended Courses at the Further Education School
<ul style="list-style-type: none"> ○ Instructor 4 	<p>Education:</p> <ul style="list-style-type: none"> ○ Professional Certified Trainer <p>Current Professional Positions:</p> <ul style="list-style-type: none"> ○ Part-time Instructor (Since 2012) ○ Section Head of the Learning and the Organizational Development 	<ul style="list-style-type: none"> ○ Attended Previous Departmental Meetings on Blended Learning Tools ○ Attended the Professional Development Training ○ Taught the Human Resources Management Blended Course at the Further Education School
<ul style="list-style-type: none"> ○ Instructor 5 	<p>Education:</p> <ul style="list-style-type: none"> ○ Professional Certified Trainer <p>Current Professional Position:</p> <ul style="list-style-type: none"> ○ Part-time Instructor ○ Business Director 	<ul style="list-style-type: none"> ○ Attended Previous Departmental Meetings on Blended Learning Tools ○ Attended the Professional Development Training ○ Taught the Human Resources Management and Business Blended Course at the Further Education School
<ul style="list-style-type: none"> ○ Instructor 6 	<p>Education:</p> <ul style="list-style-type: none"> ○ B.A in Mass Communication ○ M.A. in Marketing ○ Postgraduate Diploma in Marketing ○ Professional Certified Trainer <p>Current Professional Position:</p> <ul style="list-style-type: none"> ○ Part-time Instructor (Since 2014) 	<ul style="list-style-type: none"> ○ Attended Previous Departmental Meetings on Blended Learning Tools ○ Attended the Professional Development Training ○ Taught the Principles of Marketing Blended Course at the Further Education School

Table 4 <i>Business Instructors and Subject Matter Experts Participants in Further Education School</i>		
<u>Position</u>	<u>Educational and professional Background</u>	<u>Role in BL Implementation</u>
<ul style="list-style-type: none"> ○ Instructor A 	<p>Education:</p> <ul style="list-style-type: none"> ○ Professional Certified Trainer <p>Current Professional Position:</p> <ul style="list-style-type: none"> ○ HR Specialist ○ Part-time Business Instructor (Since 2015) 	<ul style="list-style-type: none"> ○ Attended the Professional Development Training for Blended Learning Instructors ○ Teaches Interpersonal Skills Blended Course at the Further Education School ○ Designed the Interpersonal Skills Blended Course
<ul style="list-style-type: none"> ○ Instructor B 	<p>Education:</p> <ul style="list-style-type: none"> ○ Professional Certified Trainer <p>Current Professional Position:</p> <ul style="list-style-type: none"> ○ Part-time Business Instructor (From 2007- 2012 and from 2017 to present) 	<ul style="list-style-type: none"> ○ Did not attend the professional development training due to availability. ○ Teaches Business Marketing Blended Course at the Further Education School ○ Helped in Designing the Business Marketing Blended Course at the Further Education School.
<ul style="list-style-type: none"> ○ Instructor C 	<p>Education:</p> <ul style="list-style-type: none"> ○ Professional Certified Trainer <p>Current Professional Position:</p> <ul style="list-style-type: none"> ○ Part-time Business Instructor 	<ul style="list-style-type: none"> ○ Attended the Professional Development Training for Blended Learning Instructors ○ Teaches Business Finance Blended Course at the Further Education School ○ Helped in Designing the Business Finance Blended Course at the Further Education School

Data Analysis

This section explains the method of data analysis as well as the tools and procedures. There is a rationale for each section to further explain the reason for choosing the mentioned elements in this case study. Finally, the validity and reliability of the data collected is thoroughly explained.

Data Analysis Method

The design used in this qualitative study is narrative research design as an interpretive approach. The participants shared answers that narrate the process of diffusing blended learning education to the university and to its affiliations. The researcher ensured that during the interview there was a sequence of chronological questions in which the participants narrated the process of diffusing blended learning at the University and the School. Then, the participants were asked to reflect on these steps. This is in addition, the narration of what happened during the curriculum design phase and the professional development training provide an understanding of the process of diffusing blended learning at University Y, and on the presence of the elements of community of inquiry. The results are explained in a narrative form as well. So, this section explains the tool used for data analysis as well as the procedure's data analysis in this study is descriptive and thematic. Later the transcript of the recorded answers was coded, classified into themes and interpreted.

Data Analysis Tool

Creswell, (2012) explains that a transcription is to convert the audiotape and the notes into text data. Additionally, he states that using codes and themes helped in interpreting qualitative data and in deriving conclusions from the participants shared answers. codes that were reduced and narrowed down according to significance (Creswell, 2012). This method was used to facilitate comparing, contrasting and analyzing the data into themes after collection. The detailed procedures were explained thoroughly in the following section.

Data Analysis Procedure

After each interview, the recorded audios were transcribed by the researcher. First, the researcher only listened to the interview again, and transcribed the recorded interview. Then, the transcription was read again while listening to the interview. Then, the data was summarized and added to the present study. Some of the shared insights are quoted in the results sections. The data collected was saved in the format of a soft copy word document on the researcher's personal laptop. All the transcripts were reread thoroughly and divided into segments of information. Such pieces of information were then coded and classified into themes. Dividing into themes assisted the researcher in writing detailed description of the data. Such a step is essential prior to comparing and contrasting the collected data in order to discuss the major findings which are reviewed in relation to the research questions.

The researcher then derived interpretations and conclusions while connecting it to the literature review and the theoretical frameworks used. In order to interpret the data, a review of the major findings was given in relation to the research questions. The researcher then compared the found results to previous literature to find out if the results are similar or different. For the different results, the researcher provided an explanation for creating such a difference or similarities when found. Finally, the researcher was provided limitations found and suggested models for future research and practical implications

Validity and Reliability

This section introduces the methods of reliability and validity of the data that was used during data collection and analysis in this case study. At first, the definitions of validity and reliability are introduced, and then the indicators of validity and reliability are presented with special focus on the indicators relevant to this study.

In a qualitative research, reliability is the stability and replicability of the data collected. It is a naturalistic method of inquiry that aims at understanding a phenomenon. In quantitative data, measurements show the reliability of the study. However, in a qualitative data, it's the consistent and replicability of the data that is collected about the participants through observing or interviewing them. On the other hand, validity means that the researcher determines the accuracy or credibility of the findings through strategies such as triangulation, member checking and auditing (Carter, et. al, 2014; Creswell, 2012). There are two major types of validity; transactional validity and transformational validity. The transactional validity style used in this case study includes credibility, transferability, dependability and confirmability which are the four major indicators to validity of this type. The four elements define the interactive process between the researcher and the participants during the data collection phase in order to achieve a higher accuracy of the data collected (Cho & Trent, 2006). Credibility is the internal validity where there is trustworthiness and believability of the findings. This was manifested by ensuring that the participants answers are confidential and the participants are informed with this in the consent form, by the Director to the instructors via the email sent to ask them to part of the research, and verbally during the interview.

On the other hand, transferability is the external validity. It is the level of which the researcher was able to generalize the results and how the results can be applied to other similar conditions. This is presented in this case study by relating the case addressed here to other global case studies. Dependability is the consistency of the results where there is a repeated and similar finding. This is occurred by having data about the same aspect studied from different resources including the documents found, and by asking different areas of expertise about the same topic researched on. Finally,

confirmability is the degree of neutrality, which means that there are no biases. Thus, it is thoroughly explained in the Ethical Consideration and the Protection of Human Rights section in this study how the research ensured neutrality while designing the tool, collecting the data and analyzing it.

The qualitative research strategy that improves the validity is triangulation. Triangulation is to collect information from different resources to assert the validity of the data (Creswell, 2012). Creswell, (2012) explains that it is the process of collecting evidence from different participants. However, the research exerts efforts in making sure that the data collected is valid by asking other participants about the same points. For instance, a researcher may gather some information from learners about a certain aspect. Then, he/she may ask the principle, for example, about the same aspect to compare and contrast the answers of both groups. The examined information provides evidence which will support the coded themes on analyzing the data (Creswell, 2012). Triangulation has four types; data source triangulation, investigator triangulation, theory triangulation and methodological triangulation. There are two types that are used in this case study; data source triangulation or theory triangulation. Theory triangulation is to use theories in order to interpret and analyze data. These theories may help the research in supporting or refuting the data collected and analyzed. On the other hand, data source triangulation involves using numerous resources of information to increase the validity of the study. In this type, the research responds to a group of participants during the analysis stage to compare and contrast the areas of agreement and disagreement (Carter, et. al, 2014).

For validity, the views included in this case study the participants included the instructors as well as their training during the professional development Furthermore, this explains the rationale for including the top management at the Further Education School to be included in this research. Also, the documents provided by the university on how the innovation was implemented which confirms the shared information by the top management, faculty and staff interviewed in this case study. Finally, to ensure reliability of the answers shared, a follow up phone call recorded interviews were conducted. Furthermore, the research during transcribing the audios, read the transcripts twice, and

then the participants received a copy of the transcript to ensure the reliability of their answers and to confirm them.

Summary

In conclusion, in this narrative case study the researcher used a snowballing sampling technique, and the data collection tool was semi structured interviews. All of the 17 participants had a role in the implementation of blended learning education at the Further Education School. To ensure consistency, the data collection procedure included informing the interview protocol to the participants, and having the participants signature on the consent form that confirms their willingness to voluntarily participate in this research. Furthermore, the ethical consideration in this case study included having the IRB approval prior to the data collection, and ensuring the researches neutrality during the data collection and while presenting the results. The data was analyzed by transcribing the recorded face to face and phone call interviews, sent to the participants to confirm their shared opinions and ensure validity. Finally, their shared insights are summarized and included in the results section.

Results

This chapter presents an analysis of the data collected. The first section in the results explains the process of diffusing blended learning education at University Y in general, and then in the Further Education School that's affiliated to University Y. Then, the participants' perceptions on this diffusion are presented. The following section includes the views of the top management, the instructors and the subject matter experts and the Education Technology Center team members. Their shared opinions reflect their insights regarding the implementation of blended learning at the Business department. In addition, the subject matter experts and the Centers' team shared their reflections on the consultation sessions facilitated by the Center's team members to the subject matter experts in order to design the online material for the Business Administration blended courses. All of subject matter experts and three of the top-management at the Business department provided their views on these sessions and on its' outcome. Furthermore, the

top-management, the professional development trainer and the instructor's insights on the professional development facilitated for the instructors to teach blended courses are presented.

Diffusing Blended Learning Education

In this section, the data reflects the procedure taken by the University Y in order to implement blended learning education on campus, and at the Further Education School. Furthermore, the role of the Education Technology Center on how they facilitated the implementation through technology enhanced consultation as well as professional development events are explained. The participant's views regarding the decisions taken and the process of blended learning implementation are presented, too.

The Decision Steps to Diffuse Blended Learning Education

Diffusion of Blended Learning Education in University Y

The former head of the Further Education School during the semi-structured interview reported that the implementation of blended learning education initially started from the University Y policy makers and board members. The Director and the Assistant Director of the Business Department echoed the same information. In 2019, during an open event that was organized by the Education Technology Center at University Y, the steps of implementing blended learning education at University Y was shared with the faculty members and learners University Y. In the event, the head of the Digital Education Committee briefed that a task force was established to build the Educational Technology Center as an initiative back in 2002. The goals of the Education Technology Center are to provide the faculty and learners with the help of using digital and online educational tools by experimenting digital education and the methods and pedagogies of using digital education to facilitate face to face learning experience.

In Spring 2013, an initial discussion by the university president started in order to adopt blended learning education on campus. It was mentioned by the instructional technology designer as well as the instructional designer project leader that "she believed it should (be implemented) so that it reaches a larger number of participants... and a

larger sector of society and people in society that were geographically not able to come to Cairo and so forth...” Thus, a task force was formed. In Fall 2013, a task force was formed with the board mandate. The purpose of this task force is to develop the best practices for an institution’s implementation of blended learning education, and to assess the university’s readiness for such a mission. The task force included twenty-two people where they were then classified into groups with the purpose. By Spring 2014, the university presented an award for four faculty grants to provide an opportunity of blended learning implementation. The instructional design and technology assistant project leader added that “different faculty members applied and ...four were chosen”. She illustrated that three of them are from the school of humanities, and one is from the school of engineering. They worked with these four professors to create courses that are blended. Then during the summer, the Education Technology Center offered faculty workshops that lasted for three weeks on blended learning. In Fall 2014, Blended Learning Committee was formed in order to review and redesign the courses for blended learning implementation. As a result, the first blended learning course was offered in Spring 2015, and the Center facilitated six sessions of professional development with the purpose of introducing blended learning to the university faculty.

The third faculty professional development occurred in Fall 2015 where more advanced information about blended learning was offered and during this time, another blended course was offered for students to register in. In Spring 2016, the fourth professional development workshops were facilitated again for faculty members, and in Fall 2016, the first blended course was offered for graduate students who were enrolled in Educational Leadership master’s degree.

What was shared explicitly later that Digital Education committee in University Y is to offer students and learners with a quality digital education by using sound pedagogical methods. What is important strategically are blended and online learning. University Y started by the non-degree courses since the Supreme Council of Higher Education in Egypt till this day doesn’t approve online or blended degrees as stated by the Digital Education Committee head, by the former Further Education School Dean,

and by the Director and the Assistant Director of the Business Department used in this case study.

Accordingly, it was feasible to implement blended learning education on degree programs while working on having the accreditation for degree programs which is what University Y is now trying to obtain.

The Role of the Education Technology Center for Diffusing Blended Learning Education

The mission of the Center of Education Technology is to provide a learning environment where quality education and teaching resources and support are provided through faculty development in order to integrate education innovations and pedagogies through confidential formative assessment to the course and the faculty by using surveys. The Center has a Digital Education team that are dedicated to promoting quality education and align their tasks and activities with the university's pillars addressed in its strategic plan. The team provide consultation and training sessions, educational technology resources, online and blended learning faculty and schools support and development, videoconferencing services as well as lecture capture technology. The five activities that the Center focuses on and can include in their consultations are open education, digital literacy and humanities, and online and blended learning. The goal of the Center is to provide all of these services in a sustainable and effective manner.

University Y defines blended learning as a mixture between face-to-face and online learning where online learning replaces the face -to face by twenty or by fifty percent. However, there is a space of autonomy presented since this percentage may change according to the context. The role of Educational Technology Center to assist in the curriculum development of the course as well as the evaluation. The Center provides designing tips and suggestions on how to best use Learning Management Systems like Blackboard and Moodle in addition to simple video recording and written narratives and charts to be used face to face or in an online classroom. Further, educational technology tools are presented according to the faculty's needs and the Center's recommendations. In

addition, faculty consultation is provided in order to help them establish a different understanding towards their content and their learners learning experience. To aid the faculty, the Center designed a checklist in which the faculty can measure their readiness for adopting blended learning education. The areas that this checklist focuses on are digital and learning management systems literacy as well as the willingness to learn and assess their willingness to their continuous commitment to their development process.

Also, faculty must understand that university policies in relation to academic integrity as well as the copyright rules. In this checklist, the importance of infrastructure is hinted. For example, faculty should ensure that a stable internet connection is provided as well as browsing tools and features. The instructional designer and technology assistant project leader explained that it's through their blended learning certificate that they offer for faculty development that the Educational Technology team covers the different aspects of the development of the blended The modules in this certificate include introduction to the models of blended learning, the needed tools of interaction in a blended learning environment, methods of assessment in blended learning courses, methods of collaboration and group work in a blended learning environment, and the methods of instruction design and content development of blended learning.

Furthermore, it was shared by the Instructional Design and Project leader that the team uses "backward design model" to help the faculty and instructors redesign the courses. It was added that with the Further Education School subject matter experts, the focus was on reaching the learning outcomes. The latter point is discussed in the discussion section and the professional development trainer shared his insight on it too.

The blended learning initiative reached the Further Education School used in this case study through its Former Dean as per the shared answers of the participants and according to the Former Dean herself. The participant explained that the Former Deans' interest in this implementation helped in implementing blended learning at the Further Education School.

Diffusion of Blended Learning Education in Further Education School

In order to understand the intention of digitizing education and using online tools for learners, the Former Dean of the school as well as the Director and the Assistant Director of the Languages Department conducted a study in 2019 to better understand their approach to implementing the flipped classroom strategy to their English courses by transforming the content, the material used and the assessment tools in the courses that the Further Education School learners attend. The source of this research is not going to be mentioned for confidential reasons. According to this study, it can be concluded that the school already has planned steps towards digitization and towards using online educational tools before blended learning implementation by encouraging students self-learning and relying on online tools and Learning Management Systems to prepare before class.

Diffusion of Education Technology at the Business Department

During the interview, the director and the Assistant Director of the Business department explained the process of designing new business courses, and of diffusing any new education technology or learning management systems to the department. First, they mentioned that there is a continuous need for assessment where the department examines new needed know-how and skills that are in the market. In addition, they scan the new education technology tools and learning management systems that would suit the type of learners at the School. Upon receiving the reports on the conducted market research, the department then forms a task force for each course in order to discuss the suggested business courses for the learners. This task force may include the top-management as well as selected instructors who have enough credentials and experience in the area of specialization. For new education technology and for new learning management systems, after the department top-management scans the available tools in the market, they consult the Education Technology Center for advising and for training their caliber on how to use these tools through workshops and trainings. It was mentioned though that the blended learning implementation was not suggested by them, but it was a top-down decision on behalf of University Y, and it was initially suggested by the Former Dean of the School

interviewed in this case study. After conducting a market research by an outsourcing company to measure the market and learner's readiness for blended learning, the department top-management followed measured steps to offer blended learning courses to their learners. The department consultant mentioned that they first piloted the blended learning initiative on just one course which was the Project Management, and then it was implemented on five different courses from in the Business Administration certificate offered by the department.

The Diffusion of Blended Learning Education at the Business Department

Back in 2013, since the Former Dean of the school was one of the task forces in the Digital Education Committee at University Y, she expressed her interest to the committee to implement blended learning education at the school. The Former Dean explained that upon receiving the committees consent on this implementation, the school proceeded with diffusion steps to implement blended learning to only one of its certificates which is the Business certificate that is the case study used in this research.

The former Dean of the Further Education School said during the interview that the school itself is the University's outreach to the Egyptian society through continuing education. She mentioned that the dream of the school was and still is to reach international learners by time. She explained that this dream cannot really happen without digitization and online education. Accordingly, the university and the school are facilitated with effective technology tools that could help enhancing the quality education by breaking the barriers faced in education to all learners.

The role of the Dean was not only to direct the school, but also, she was one of the Digital Education Committee board who was summoned in order to be one of the task forces formed to implement blended learning education on campus back in 2013. She mentioned that now and after all those years, the university has the adequate infrastructure with the Education Technology Center help in order to implement online and blended learning. She explained saying;

...because I was on the committee and because the school is nimble, we do things much much faster than academic, and in order for the academics to go first and produce a full online credit course, that requires issues regarding accreditation. That's one part, and the other part is that getting faculty and students ...students are never a problem to put the blended or online...also we had agreed in the committee that it would take far longer academically. So, at the school we were the ones in the forefront and that's why we ran fast. (The Former Dean of the Further School of Education)

The Former Dean explained that she discussed the idea of adopting blended learning with the current Director of the Business department, and they agreed to start implementing blended learning to one of its “popular certificates” which is the Business Administration Certificate. And so, they followed the university definition of blended learning and with the help of the Education Technology Center, the course was redesigned to be implemented at the school. She mentioned that the students at first faced resistance since they first offered the option to choose between traditional courses and blended learning courses. Since the students resorted to traditional courses and only few registered in the blended courses, so they decided to only offer blended courses to this certificate. After this, another dean took over, and the Director of the Business Department proceeded with the implementation.

The Education Technology Center top management and project leaders had the chance to meet the Further Education School top management in order to decide on the steps of implementation since the Center was responsible to assist departments faculty for such an implementation. The researcher tried to reach the contract with the agreements that both departments agreed on, but it did not seem to be accessible due to confidentiality. However, it was concluded from the semi structured interviews between the top-management and the project leader that the agreement included redesigning the well-designed business courses used at the school to be blended. It was mentioned by both sides that the Center had the responsibility to train the instructors who teach and redesign the course on the methods and tools of blended learning education. However,

the team only had access to the material that needs to be online only without checking the targeted learning outcomes and materials used during the face to face session. This decision was based on the agreement between both parties.

The first step of the implantation occurred through a training facilitated by the Education Technology Center before the Business department announced the adoption of blended learning at the Further Education School to the learners. It is worthy to note here that the location of the Further Education Schoolish almost 34 kilometers away from the University campus. Therefore, the top-management and the instructors attended the training which took place at University Y premise during January 2017 and it lasted for 3 days. The training included the definition and importance of blended learning, the method of teaching in blended learning and the needed assessments and tools in order to implement blended learning education. After this training, the top management at the Business department selected their business instructors that have the best evaluation from learners and who have the expertise in the area of the course designed to confirm their willingness to be part of the implementation of blended learning, and to coordinate meetings with the Education Technology team members in order to redesign the course material for the blended learning implantation. It was mentioned by one of our participants that there was a financial compensation for this task.

The Assistant Director explained that the implementation of the blended learning could be categorized into two stages, so far. The first stage started in October 2017 until October 2018 when the first blended courses were introduced to the learners, and the online percentage was only 25%. The following stage started in March, 2019 till present when the percentage of the online sessions got increased and the students attended 50% of the blended courses online. Before the first stages of implementation, and according to the Education Technology Center request, the Business department selected the instructors who will help the instructional designers and instructional technology designers' team from the Center in tailoring the online material for the learners. This occurred through consultation sessions organized by the Center. The Business department selected those instructors according to their extensive experience and knowledge about

the area of the subject being designed and according to their learner's evaluation and to the departments as well.

Another factor that played a role in this selection is availability since designing the courses required a high level of time-flexibility and availability. It is worthy to note that there was a clear misconception on the role of these instructors on behalf of the department and the Center. According to the Director of the Business department, the department called these instructors as subject-matter experts since they choose them according to their expertise in the business area and knowledge. On the other hand, the instructional designer and project leader addressed them as instructional designers believing that they have enough knowledge about designing and delivering courses for learners.

Instructor B explained that the tools used for the curriculum design were the course outline and the textbook as a reference. The learning outcomes that included the online content only were redesigned by the Education Technology Center. Later, after redesign the content with the Education Technology Center, the participant sent the content for the Business department top management and they approved it for being aligned with the course learning outcomes. Furthermore, the Education Technology Center reported on the instructor's performance and whether there are any obstacles that they are facing in order to ask for the Directors help.

After that, the instructors who were selected and confirmed their availability to teach attended structured meetings before teaching blended learning courses with objectives in order to speak about the modified modules for the blended courses with the subject matter experts who designed it. It was often the case that each subject matter expert who helped in designing the courses facilitated those meetings and helped in explaining the module to the teachers. It is worthy to note that there were no guidelines on how to teach the material as per the expectation of Instructor B during the consultation sessions with the Education Technology team. Thus, those meetings the demos were only about the new material and the new tools and Learning Management System which is the

Moodle and Play-posit that were used to upload the material. At this point, the option of having discussion threads was not presented.

However, later the idea was introduced in order to make the online sessions more interactive for the students. Instructor 4 explained that they all had a demo account to check and feel how it would be like later in class. Furthermore, they had a task to read the material and send comments in case there are any comments on the material shared.

Instructor 6 explained that there are two ways that they had support from the department; the direct and indirect way. The direct way is through the workshops before and after implementation. In addition to having meetings in-between sessions and via emails. The indirect way is through the top management who exerted an enormous amount of effort to deal with instructors who are teaching blended learning courses. They were open for emailing and calling for any reasons that the teachers face for each instructor promptly.

Finally, what occurred to the researcher's knowledge later that one of the departments at the Further Education School are also planning to implement blended learning to an academic English course. As a sort of helping other departments, three of the selected instructors who may teach the academic English course were invited to attend the professional development training. Only one of those teachers was interviewed in this research due to access and availability.

Results and Views of Diffusing Blended Learning Education

Students Views on the Diffusion of Blended Learning Education

It was reported by all the participants that students at the Further Education School are facing resistance and they refuse the blended learning experience in their courses. First, the Director of the department confirmed that the enrolment rate has drastically decreased since the blended learning has been implemented. An evaluation report has been shared with the Education Technology Center to confirm this and the former Project Leader confirmed that she heard that the learners were not pleased with the results. Thus, the Trainer from the Education Technology Center confirmed that this

triggered the vitality of immediate action to enhance the learning experience for the learners. The Consultant of the Department agreed that the teacher's pedagogy during the online sessions were a failure mentioning that the instructors were not fully present during the online sessions. This comment was mentioned in the student's evaluation that is shared with the Director of the Department and the Trainer through the student's evaluation report. However, the Assistant Director commented that though this was the case at the beginning, and it still is with some learners, after the professional development training and after the teachers started to teach the blended courses. She explained that there is some level of acceptance from the students towards blended learning education. This acceptance is reflected in the students' evaluation as well later during this semester, Fall 2019.

Prior to the professional development, Instructor 6 mentioned that she asks the learners who attended the first two rounds of the blended courses to write on a piece of paper why is it that they are worried the blended learning strategy. She asked them to explain their answers by either it's because marketing issues which caused the learners to not be more oriented about the definition of blended learning, or because of the technical issues they face during the implementation. She summarized that most of their concerns were related to the technical issues and the tools of education. Finally, Instructor 5 explained the students shared the concerned with him. He said that the students seem not to be aware of the definition of blended learning education, and the instructors were not asked by the department to share this definition at the beginning. Later, this aspect was put into consideration and gradually the benefit of blended learning education was being introduced. Furthermore, the content itself was poor. A lot of students already come from business backgrounds. Thus, they can evaluate for themselves that the material shared was of a poor quality. In addition, the instructors were asked to record the lectures themselves with no enough tools that led to the lack of interactivity and professionalism. He explained that using the voice only for education is not effective. And the recorded material was of a low quality since the videos were not recorded in studios, but in the instructors chosen locations. These do not reflect the University Y criteria and reputation.

Though he wishes that he had the chance to help in tailoring the material, he sees that the instructors should not tailor it since they do not come from an education and instructional design background.

Top Management Views on the Diffusion of Blended Learning Education

The Former Dean of the Further Education School

The Former Dean expressed her support and enthusiasm towards the implementation of blended learning education at the Further Education School despite problems in the technology and infrastructure. She added explaining the following;

So, it was challenging and it was not an easy process, I can tell you. And it took us like what, six months to do! And then, as I told you how we implemented! We first give them a choice, and it didn't work, then we forced. I think now we are the point of no return; we have to do this. (The Former Dean of the Further Education School)

She explained that the school has a lot of freedom than academia. Thus, it is “nimble” to implement new innovations even if there are obstacles faced at the beginning. She believes that this experience is like their previous attempts to digitize their content for the continuing education learners by using Moodle as a Learning Management System. Though they faced obstacles at the beginning, now it's being accepted and even praised for a better implementation. She asserted that a better implementation will never work without professional development. With new innovations, she mentioned that it is expected to face some resistance from some teachers. It all depends on the types of teachers as learners that could help understand this resistance.

The participants explained that from her perspective, there are two categories of teachers. There are the teachers who really love technology and embrace it and there are those who do not accept new educational technology. The professional development events are more focused on getting them to use the actual system and not on a mindset

change. So, the mindset change takes far longer. She explained why sometimes they use those teachers once they got the hand on them to help the other teachers who are not only not comfortable with the technology introduced itself but also, they are not comfortable with the idea of using new educational tools.

“So, we try to use teachers to also give a professional development themselves ...giving their real examples from their experience and their own classrooms. So, I think professional development should be done by... experts and then by colleague.” (The Former Dean of the Further Education School)

She commented saying that in order to provide an effective professional development, there should be a sort of requirement and obligation where the teachers are expected to attend them. In addition, they should be motivated to do so. The incentive should not be financial but rather a way to help them develop. Thus, the professional development sessions should be designed in an interactive way through hands-on activities and discussions with content that would cater for the instructors needs. However, she commented that the case with the professional development for blended learning was different since they had to resort to the instructors for curriculum designing prior to the professional development training delivered later.

The Director of the Business Department

The Director of the Business department expressed that blended learning education could boom in the department at the School only if it is unique enough for the learners. She believes that it saves time and effort especially to learners who come from remote areas. However, an engaging and informative content is vital for an effective learning experience to the students. She added that the blended learning education is the initial step in order to go fully online later. She explained that they started with the business courses at the School since the learners come from a better socioeconomic background than language learners. Their backgrounds may include internet connection and technology tools and gadgets. It could happen later that blended learning will reach all learners at the School. However, they need to make sure that the learners are ready for it. In addition, blended learning is a good opportunity for learners who register in the

course along with their academic or professional responsibilities. Despite all of this, the enrolment rate is currently getting worse than how it started due to several reasons that are related to the infrastructure and the learner's engagement online. One of the major reasons that she expressed was that blended learning education was rather introduced to them as a mandate and not as an option. Despite this, no clear guidelines were presented on how to implement it. This was reflected on how the Education Technology Center helped in the curriculum design.

Our subject matter experts are practitioners whom we taught how to teach, but to take them and tell them design and develop a digital course for them! All what they know what to do is to talk over the PowerPoint, to speak. (The Department Director)

The Director of the department commented that the outcome of the consultation sessions provided by the Center was not satisfying. She mentioned that they only took the material that was already designed and had a voice over which turned out to be short videos since the teacher was not there to engage the students with examples and interactive questions. Therefore, the sessions were short and did not cover the needed learning outcomes. She mentioned that the instructors shared with her that they felt as if they are monotonous and lousy during their voice over. Therefore, the instructors later started providing more material with further clarifications including discussion forums on the Moodle. Accordingly, she described the relationship between the department and the Center as "the blind leading the blind". Neither the department nor the Center had clear guidelines on what to do at the beginning to implement and design blended learning courses. Which results in poor designed curriculum and lack of teaching strategies to teach blended learning courses.

As I said, we are not experts. We are experts in the materials and in teaching it faces to face. The school instructors are not experts in the digital technology. We would do what they tell us to do. So, we did what they asked us to do. That was our role...yet we are not blaming each other...The instructors are more business oriented and not technology oriented. Our subject matter experts are practitioners whom we taught how to teach, but to take them and tell them to

design and develop a digital course for them! All what they know what to do is to talk over the PowerPoint, to speak. (The Department Director)

Due to this drawback in the designed curriculum, the Director resorted to an outsourcing company after she attended an international conference about blended learning education and after she got the Schools' approval. In this conference she better understood how blended courses and online sessions especially should be. She mentioned that she cannot judge how effective the new designed curriculum would be, but she can notice the difference in the design and the tools used for the online sessions.

Unfortunately, I was the project manager of the 5 courses, but I haven't seen what this other agency gave me...Now it is making sense. That my only role is to only verify the material... When they give me a story board, I would verify that the material is correct and the sequence is correct and so on... that's it! That's my role as a subject matter expert...to provide more explanation if needed. They didn't work with the power points that instructor uses face to face. (The Department Director)

Earlier before the implementation of blended learning courses, the instructors did not attend a professional development session like the trainings provided now. Instead, there were sessions delivered by the Centers' team on how to use the tools but not on how to teach the tools which were delivered later after implementation. The focus of these professional development trainings was on the education strategies and methods of teaching in a blended learning format. These sessions were provided after she sent the Center the feedback of the learners informing them that the enrolment rate has drastically decreased. As a result, she is "losing her clients". She explained that this training may have aided in helping the instructors in teaching in a blended format. It was due to the time constraints the number of training sessions are limited as all of the instructors are practitioners who have their full-time positions as well as teaching as part timers. In addition, not all the Centers team are available during the semester since they still have other tasks to be covered on campus.

The Director explained that in general they offer professional development to all teachers where they have the opportunity to engage, share insights and new ideas. This

occurred when the School was assigned to implement blended learning education. She explained that she can never force the instructors to teach what they do not accept or cannot acknowledge. Therefore, she wanted to first ensure that they accept blended learning education before implementing it to their courses. This was done through meetings and workshops where the instructors were informed about the implementation of blended learning education at the School. The departments' Consultant explained thoroughly how the department informed both the instructors and the learners of the initiative.

The Department Consultant

The Department Consultant explained that there were some obstacles during the implementation of blended learning education at the department. First, he expressed that the instructors did a good job in handling the students. However, some of the students were against the online sessions, and they were reluctant to be part of the online class. They depended on receiving all of the information face to face which was an overload for the instructors. The second round was better than the first since the students started to engage more with the encouragement of the instructors.

His commented on the professional development training facilitated by the Center saying that it was beneficial. He attended one of them and he expressed that it was effective in addressing the instructor's concerns. He believes that the discussions helped in having a better understanding of the reasons of the challenges faced in implementing blended learning in the Business department. He expressed that sharing experience and verbalizing their concerns helped in helping each other to suggest best teaching strategies and practices.

When the participant was asked on why this professional development was not delivered before the implementation of blended learning, he explained that it was "a one man show" where this who was in charge proceeded with the phases of implementation based on their trust to the other parties and for the trusted and selected caliber. The decisions were not based on needed measures and procedures to implement a new education innovation. Therefore, both the curriculum and the method of delivery was in

need for a revisit. It was concluded through this training that it is vital to focus on the curriculum designed over the teacher's development now since the online sessions were not interactive. Furthermore, he believes that not all courses should be delivered online or blended with the situation in the School. For example, the Finance course could be advanced for the learners who do not have finance background. This opinion was also expressed to the department on behalf of the Consultant to the department Director and task force. In addition, some of the learners are not English fluent. Therefore, the slides were advanced to them and they needed a present instructor to explain their misconceptions or misunderstanding. Therefore, modifications and additional activities and information are needed.

He believes that those who were selected for the online content for the course design should have been selected by following a higher criterion. The selection should not depend on availability or based on the number of years teaching the experience. In addition, he mentioned that he objected against the material shared since they are just "moving slides" and recorded videos. The instructor's role was to only audio record their voice reading scripts and not actually record a video with their elaboration and teaching. In addition, the slides did not include figures, tables for illustration. Some of the instructors who designed the program applied what they know and experience and not what should be delivered in the course. Therefore, the material was "biased" to their experience and not the required knowledge. Furthermore, they did not follow the learning outcomes and the outline of the course which resulted in sharing elements and learning outcomes from a different course to the offered courses which resulted in redundancy.

...they applied what they already know and not what should be. So, they were biased to their own professionalism and not what should be delivered to the audience. So, they stuck to their past experience and not to the curriculum or the course. I already raised this objection to them face to face during the first meeting to evaluate the program. (The Department Consultant)

He explained that they had a seminar including the students and the instructors in order to orient them about the blended before it is launched. The guest speakers talked

about blended courses in a very professional manner. His opinion was that what the school implemented was totally different from what was oriented during this event. He mentioned that the problem is that this seminar was offered after and not before the course curriculum and assigning the teachers. He explicitly advised the department to change the content before launching since he believes that it was not interactive. However, it did not seem possible at that point.

The Consultant concluded the interview with his opinion explaining that he thinks that instructional design is a science on its own. Therefore, experts who are specialized in instructional designing should have been the ones responsible in designing the curriculum, and not the subject matter experts who only have enough years of experience in teaching the course and not designing the course. Therefore, he advised to have a committee to orient the instructors and subject matter experts on the methods of instructional design. Then, a pilot program could be launched in order to monitor the implementation and pinpoint the needed modifications before offering it to the market and to the learners.

The Assistant Director of the Business Department

The Assistant Director expressed her opinion about blended learning and about the professional development sessions delivered to the instructors. However, she shared her concerns regarding the implementation of blended learning and regarding the curriculum designed. She mentioned that those who were selected in order to design the courses were also selected according to their availability and not their skills. She expressed that this was clear in two subjects which are the HR and Finance. The curriculum designed did not meet the criteria of the School, and there are a lot of vague knowledge shared in the online sessions. The content shared did not address the learning outcomes set for the course since the instructors are not instructional designers, and they do not have enough background about curriculum designing and the vitality of learning outcomes. She explained that the Center provided the freedom to design whatever the subject matter needs to include. In addition, the course designed was a solo task where

the other instructors who were not involved in the material designed could not understand the basis of which the courses were designed.

The participant believes that one of the root causes of the problems they faced is that the instructors they hire are professionals and not educators. Therefore, it is not one of their professional duties to tailor material or know how to design a material as they are hired rather for their professional background and knowledge in the business field and not education. She explained that in order to teach one subject, they have to read 5 text books. What happened is that the courses designed in the blended format specially the online ones were not based on academic content. Thus, it did not meet the expected and shared standards.

“The instructor designed the course, added some topics very related to what running on the professional side, but has no academic reference!” (The Assistant Director)

Despite this, the Assistant Director expressed that the subject matter experts were aware on how to create PowerPoint presentations, and how to reserve the content copyrights while selecting visuals relevant to the subject. The participant expressed that the training added to the knowledge of the instructors. She gave an example on some instructors who followed the advice and strategies shared during the training sessions. However, she shared her concerns that though it was effective, it did not directly tackle the problems that the instructors face which are the online tools and how to use the presented online material in an effective way. In addition, she mentioned that there was a high sense of blame being drawn towards the instructors when some concerns were shared. She believes that instead of blame, better strategies would have been more effective. In addition, helping in redesigning the course material would have been an effective solution as well.

“With all due respect, when you want to blame someone for something and “this is your problem” ... They don't get through facilitation; they don't create an active environment. When you blame people all the time and you don't look at the problems that you have created!... If you want me to deliver as an instructor a

content! Then facilitate content and design it well first! As long as it is not designed well, then I can never deliver it well! (The Assistant Director)

She believes that to have an effective professional development, the trainers should first understand the nature of the instructors and the learners at the School. In addition, more topics and strategies could be tackled in depth.

Education Technology Members Views on the Diffusion of Blended Learning Education

The Former Project Leader (Instructional Design and Technology Assistant Professional)

The Former Project Leader who is the Instructional Design and Technology Assistant Professional at the Education Technology Center expressed that one of her roles is to lead projects where blended learning education is implemented. She used to manage the initiative of blended learning at the Business Department, and now she is leading two other projects where the Arabic Language courses are modified to be blended courses as well. She mentioned that online learning and digitalization of education was not so new to the center. When she was asked about the model used with the Further Education School in order to implement blended learning, she mentioned that they would use alternating sessions with the students where one is face to face and the other is online. They worked with the faculty only on the online components and the face to face components were left to the faculty. Thus, the focus was on designing the online modules of the curriculum and not the whole curriculum nor the faculty development. They ensure that the online component has different elements like “interactive narrative PowerPoints, discussions, case studies and different forms of assessments... that was it.” When she was asked what model or rubrics used during the faculty consultation sessions and workshops, she said;

I mean... they were focusing on the LOs of the course! And the LOs are manifested in the design so the design reaches these learning outcomes! So we were given the original PowerPoint and content and we so worked with the

faculty members on redesigns the PowerPoints so that they are more targeted towards online learning and the purpose was to help them to come with scripts for PowerPoints and make it more interactive that it would include assessments like formative assessments in terms of more interactive components to have active learning modules online. (The Former Project Leader)

Since the Educational Technology Center team was not asked to look at the face to face components, it did not seem that they actually asked for it. During our discussion, it was stated that she was able to identify the people in the top management but not exactly with the area or the department they were managing. In addition, it was clearly expressed that she is not quite aware whether there are official documents or a clear agreement between the two affiliation, the Educational Technology Center and the Business Department where there are shared agreements on the expected upon the completion of this project.

The team often have meetings where they discuss the challenges, they face with the faculty members during the consultation sessions and workshops. It was shared that they had to contact the top management at the Business department since some of the instructors needed to be encouraged in order to use some online tools, like adding questions to the interactive PowerPoint slides during the online sessions. Furthermore, there was a problem in meeting the education technology team on behalf of some instructors since the location of the School is far away from the University Y campus where the center is located. Thus, at the beginning there was a failure in communication between both parties until both affiliations managed to find different ways to contact each other either by phone calls or online to provide them with feedback and assistance.

Right after she delivered the courses in June, 2018 Former Project Leader was not involved nor engaged in any of the addressed project activities. However, she said that it is not surprising to her that the students are not happy as far as she heard. To them, this is just a very cumbersome way of doing the same thing. So, they were fine with it being

taught face to face and they really did not want to see it in a blended format. And so, everybody was discontent.

Furthermore, she expressed that the on-campus activities for undergraduates and other education diplomas are different that the Further Education School. She assumes that most of the learners and educators do not mind coming to meet face to face, so why should online education be implemented?

They are coming coming, so what would they benefit? I personally think that the instructors did not see any benefit. On the contrary, it's much more efficient for them to come give their lecture and forget about it because they are usually also working in several places, especially the ones in the business section. They don't want to think about what they have to do online and online responsibilities. (The Former Project Leader)

She believes that there should be a sort of a reward or an understanding of the importance of teaching blended for it to be effective. On the other hand, she believes that the other courses that are delivered to the Professional Educational Diplomas provided on campus can be more effective since most of the learners come from remote areas. She estimates that the instructors of this diploma are mostly females. She added,

...so, they wouldn't probably mind to teach online so that they don't have to come all the time. So, I would see it of benefit because its expanding opportunities for people that otherwise would not have that opportunity. It would open also; you know the opportunities... a way for instructors who are currently not from our instructors' circle to join because its online. (The Former Project Leader)

Implications and interpretations of these shared opinions are presented in the implications section.

Instructional Technology Designer

The role of the Instructional Technology Designer is to help and assist in providing the online tools and training the instructors to use them. During the interview,

she expressed her opinion about the difference between the professors on campus and the Business instructors from the School. She stated that dealing with the instructors from the Business department was not the same as dealing with the professors on campus. She mentioned that those who took part in the implementation at the School did not seem to choose it, but it was rather a departments request.

She added an example that occurred with another instructional designer with the Subject Matter Expert of the HR course. She explained that he refused to add the questions in the videos as a way to make the videos interactive with the students. He did not provide any reason for this but that he was not convinced. And thus, the Instructional Designer assigned for this task reported to the Project Leader who later reported to the Director of the department and forced him to add the questions. Therefore, the material in this course was referred to as problematic according to the Assistant Director's feedback.

However, at University Y, the professors on campus are the ones who address the team members in order to redesign the courses to be blended. Thus, the attitude of the instructors is totally different from the professors. In her opinion, the problem at the School could occur again with departments on campus since they too did not choose to implement blended learning, but it was rather a decision by the department top-management as well.

The role of the consultation sessions provided for the Subject Matter Experts from the School was not to teach the strategies of how to teach blended courses, but to only help in redesigning part of the courses designed to be redesigned for online sessions. This is unlike what they do with the other courses and departments on campus, and there was no clear or shared rational for this. However, there were several obstacles that were faced from her and from other designers as well.

During the session, there is another team member who is an Instructional Designer. His focus was on the content designed and not the technology part which is the responsibility of the participant interviewed here. She answered saying that when she was

asked to sit with the subject matter experts to redesign the course, it was done through a delegation from the project leader via email. She worked with only one subject matter expert from the beginning who is the instructor of Finance. She worked with another one but just because another colleague had to hand-in the task due to availability.

She explained that there were no shared criteria on what was expected from the session, and she did not happen to sit with the fellow instruction designer to discuss prior to the session what tools and pieces of advice that will be shared. She expressed that she wished that there was a rubric for the session where the sessions have its' own learning outcomes. She answered the interview questions elaborating there was no specific model to follow. The only thing she was asked to do was to help the subject matter expert to create a narrative video. This method was chosen by the project leader interviews in this case study. She expressed her opinion saying the following;

It would have been much better if we have like guidelines on what exactly should be shared with him. We were just trying to replicate. But having our own guidelines, checking the content that we have and having a checklist giving it to him that would have of course saved a lot of our time and would have saved a lot of our time and would have made things clear for him and us. (Instructional Technology Designer)

The sessions included follow-up sessions where the designer met the subject matter experts again to ensure that the material has been developed before it is forwarded to the top management at the School. She mentioned during the first session, it was clear that the subject matter expert was not aware what blended learning was despite the orientation session he attended.

Furthermore, he was not able to understand the role of the script before audio recording the sessions. His slides were wordy and not interactive. However, she tried to define what blended learning is, and her fellow colleague helped him in designing an organized and clear presentation. In addition, they aided him in creating a script before audio recording the video.

Although she helped the subject-matter experts with the course design, she was not involved later in the professional development training provided by the instructional design manger and the professional development designer and trainer who facilitated the training for the instructors later after implementation.

Instructional Design Manager

The role of the Instructional Design Manager who also is the trainer of the professional development trainer explained his role in the Center. He explained that he leads a small team of instructional designers on campus in order to manage the student's technology assistant program. In addition, they help in designing programs while ensuring with the target of providing consistency in programs' quality in the departments at University Y through effective technology tools.

To ensure this quality, there is a process where the instructional designers meet the program heads and the faculty in order to decide what they need and what technology they can implement according to their learning outcomes and strategic goals. Then, the team refers to best practices that suit the department or the program. This includes collaborative learning integrated to the technology used with the purpose to maximize the instructor's interaction with the students especially during the online classes.

In relation to the Business department, the participant explained that he first understood the situation from one of his team members who helped the instructors with the course design. He mentioned that there were several "misconceptions" from both the Center and the School which led to an "incomplete look to the curriculum".

According to his perspective, there was no holistic look towards the courses since the instructional designer's team had no access to the content that needs to be done online which led to the lack of "flow". He added that it was a consensus between the School and the Center to just focus only on the parts that need to be redesigned, and he explained that this poor decision was may be since they were all implementing the blended for the first time. This opinion can echo the Director's opinion that it was the "blind leading the

blind". And thus, the faculty was not feeling the connection between the sessions of face to face and online, and as a result the students felt the same.

Everybody came to this with the face to face mentality... When you are doing the online you are really talking about time and not sessions. You are not talking about seat time or the class time but you are talking about a span of time... The faculty used to think that way and the designers right here used to thinking that way because of the vast majority experienced here which is a lot is in the face to face mode... Where everyone is focused on this is what is going to happen in the classroom and they are not really designing what is happening outside of the classroom. And a good design considers what happens inside and outside of the classroom (The Professional Development Trainer)

He explained that this affected the whole process of implementation. In addition, he mentioned that one of the things that should have occurred before implementation is to measure the teacher's readiness to teach online through surveys in order to identify the gaps where they need development, and this did not happen to the instructors from the Business department.

Therefore, when he saw the feedback from the department which included the student's comments, he became reassured that the teachers need to be trained on how to facilitate the online sessions and maintain a flow during the face to face sessions to ensure a successful implementation of blended learning.

For example, he illustrated saying that the face to face should be an interaction between the people in the class where activities like role acting for example that couldn't be done online could be done during the session. Thus, the session should not be a repetition of what was done online like what happened with the instructors or else this will lead to the learner's reluctance to engage in class. In addition, he commented that the students were not well prepared in order to attend blended learning courses nor they were actually aware of what blended learning is.

Contrary to the Director, Assistant Director and the Consultant mentioned during the interview, the trainer sees that the instructors did not know what to say against the student's complaints which led to the learner's demotivation too.

The technology fail was also other obstacles that was highlighted. It was mentioned that the university is currently working on having better platforms and tools in order to better implement blended learning education.

In terms of the curriculum and instruction design, the participants explained that in his opinion the first in instructional design is to follow a process consistently. The whole idea about process is to improve each time the implementation occurs. The second is the technology tools used and the third is the flow between the sessions and throughout the curriculum. However, he believes that it does not seem to be feasible to first redesign the course before providing the tool for the instructors to use. And thus, the course redesign may not be the vital option now.

They had conversation on the background of the instructors, and he felt that collectively between the School and the Center there was a need to deeper understand the learners and acknowledge them of what blended learning is. He mentioned that the School worked on this and the learners were informed that the classes they are enrolled in a blended and not traditional courses. In addition, he believes that the students did not have blended courses before. Therefore, they do not have any empathy towards any failure during their learning experience. Thus, he felt like the training should have to depict the experience that the learners actually go through.

The designed training followed the same design of the courses delivered to the learners while ensuring it be interactive. However, he had some concerns about it since he needed more than just the number of sessions offered. But, the top-management expressed that the instructors are professionals and they would not have enough time to attend more sessions online or face to face. He explicitly stated that he was focusing on how to maintain a social session during the online classes, how to maintain a flow

between the sessions, how to facilitate the online sessions and office hours, and how to provide online feedback with rubrics since neither were not available. During the face to face sessions there were discussions where he posted a question based on the instructors shared information and proceed a group discussion from here, and from here I have the input through teaching and then reflections.

The instructor's overall feedback about the training was positive, however they all commented that they all need to understand the basics of which the courses are designed how to design them. He explained that this was not addressed yet since the focus on how to deliver the courses within the time limit and how to ensure they are done effectively and professionally. He explained that it is true that this is a gap and it will be provided during the professional development training that will be delivered by November, 2019 for five weeks. He finally commented that the training may be delivered fully online regardless of the instructors concerns about it.

This is an experiment but my analysis is this, the only way to get them to focus on the online is it the only way to interact so that they get confidence to only interact this way. They don't believe they can, they say that they can but they don't really believe it. And they need to have confidence in that in order to really teach it. And if the instructors can't teach it, you can't offer it. (The Professional Development Trainer)

Instructors Views on the Diffusion of Blended Learning Education

Despite these obstacles, the instructors expressed a positive view towards blended learning education. For instance, Instructor 3 describes blended learning as a smart education strategy. Since at some point the Further Education School has to resort to online education eventually, blended learning has the benefit of mixing the idea of having an online instructor who is available most of the times, and of having the same instructor during the face to face session for support and further questions and understanding. However, he commented that at the beginning there was a sort of resistance on behalf of the instructors and himself to some extent. However, coming from telecommunication

background, he was able to understand this resistance with the hope of a better implementation later. This is in addition to the student's "shock" at the very beginning especially because he feels the students were not fully aware of the blended education, and that they registered in a blended course from the first place.

Views on the Professional Development Sessions and Consultation Sessions

Consultation Sessions

Instructors Views on the Consultation Sessions

Instructor B expected to know how to teach the material during the course design. It was not as detailed as it was expected. In addition, there were no guidelines on how to help the instructors interact online and engage the students. Furthermore, the activities designed were not as interactive as expected. She mentioned that the time was really limited in order to help in designing the courses which impacted quality. Despite that she shared this point with the team members, this point was not addressed. Also, she mentioned that she expected more material from the department since the provided material were not sufficient.

"I don't know why but in terms of the academic content, it was very good. But for the entertaining part and how to make it more interactive I feel like we should have made it more interactive." (Instructor B)

Views on the Professional Development Pedagogy, Content and Assessments

Before starting the professional development, an email was sent to the instructors by their departments explaining that they were selected to attend an online facilitated course. Then an email sent by the professional development facilitators included the learning outcomes and what was expected to achieve by the end of the course. They shared a Moodle link where the selected instructors are registered for the course opened, and they encouraged the instructors to access the Moodle link and then complete some tasks which they called the "zero tasks" prior to meeting. The purpose of these tasks was to determine if they can access Moodle or not and whether if they have any technical issues so as to get them out of the way before they actually meet face to face. Furthermore,

the trainer's biographies were uploaded so as to orient the instructors about who they were and their professional and educational background. So, the instructors familiarized themselves with the course through the email and through the links provided on Moodle. It was added that the advanced modules were locked, so they couldn't skip ahead and see what they were going to do next. One of the instructors explained

...we couldn't skip ahead and see what they were going to do next. You couldn't, you know, finish the course before you hit. But week zero was open, and on week zero we got to know the instructor because their biographies were uploaded. Then we had to create a word file, put our name and contact info, change it to PDF and then upload it on Moodle. And later they mentioned that the purpose of this is to make sure that we are familiar with these online tools. We know how to upload; we know how to save and create PDFs. (Instructor 1)

The learning outcomes of the professional development was shared with the students before the started the course. One of the participants shared that by the end of the course, they were supposed to be able to do the following; communicate value and benefits of online and blended learning to students, communicate critical course information to students in a timely and effective manner, conduct online office hours, provide constructive and meaningful feedback to students in a blended learning environment, create and maintain presence as an instructor in both face to face and virtual learning environment, use rubrics to assess students work, create transitions and facilitate the flow of students learning between online and face to face learning in a blended environment, and to facilitate peer interaction between learners in a blended learning course. The total number of modules that were delivered are six modules. The trainers and the instructors met three times for a face to face session to cover three modules on each session, and the other three modules were covered online. After finishing each face to face session, the facilitators of the professional development asserted that the instructors must attend the online sessions and do the activities and tasks assigned to be able to follow up. The Assistant Director and one of the instructors confirmed that out of

30 instructors who were supposed to attend this profession development training, 20 students only who regularly attended the face to face classes.

To ensure that the instructors read the syllabus before starting, a graded quiz was shared to check their understanding of the syllabus and the guidelines of the office hours that will be conducted in addition to different other elements shared via the link for “week zero”. On their first session, the module was mainly about managing expectations. Where the trainers and instructors started discussing the different methods and strategies in order to meet the students, especially Egyptian students, fears and concerns about blended learning. For instance, they discussed the different methods of orienting the students with the course via email, ensure computer and digital literacy as well as making sure that students are able to access the Moodle. In addition, they discussed how to open a discussion forum and how to raise the learner’s awareness regarding their expectations on when a teacher should be online and when a teacher can answer their inquiries through agreed guidelines and online rules. Instructor 1 explained the following;

...If they are taking a blended course, they have false expectation that when I post a question the instructor is going to reply immediately. So, for example, we will reply within 24 hours of your request. If you post on Thursday, well, you will have to wait for the working days and then wait for a reply. (Instructor 1)

The second module was delivered online where instructors were oriented about the vitality of social presence. According to one the instructors and attendees, he mentioned that they learned how to let the students approach them and they were encouraged to set example for their learners on how to communicate effectively and how to build a rapport online between each other. The instructors were encouraging to create a welcome video to address the students, and talk a little bit about himself/herself, about the course, introduce the learning outcome and, encourage them and then wrap up. They were asked to write their own biography to be written in first person and they gave them models to follow. The biographies didn’t just mention academic achievements but also

other information that included their personal life and interests. The Assistant Director of the department reported that one of the instructors did this, and he recorded his welcome video and shared it with the students. As a result, this had a very positive impact on the students according to their shared evaluation with the department. It was mentioned by one of the instructors that the trainer emphasized the vitality of excitement and sense of encouragement while trying to audiotape videos for learners. Also, the use of images and visuals that would accompany your lectures are vital for students understanding.

Furthermore, they were informed that they have to have online office hours, which is what the trainers actually did by sending a forum to vote and choose the suitable time for all learners. The most date and time most voted on, the trainer will conduct office hour as a live session on Zoom. Unfortunately, only seven to eight instructors only attended the Zoom office hours. The trainer created a poll, and asked people to check the time slots in which they are available. In addition, a forum was created for the instructors to post questions to be discussed during the Zoom meeting. Later, common time slots were marked by the trainer and chosen according to his availability. Thus, only 8 people showed up. However, no new material in the office hours were not covered so as not penalize those who didn't show up. The trainer addressed the questions that were posted by the instructors via recorded video meeting that was posted later for those who didn't attend as well as the answers of the questions they shared on the forum. It was reported that the trainer referred to and asserted the importance of availability as part of social presence in blended learning specially during the online sessions.

In module three, the trainers assigned an online component for the instructors to read for face to face discussion. Here, the focus was on the flow between the online and the face to face sessions. The online component was a case study where the instructors are later asked to identify the key issues and challenges that an instructor at Seattle University was facing in order to maintain the flow. It was concluded that in order to maintain this flow, there are four stages to follow which are setting the stage exploring, digging deeply and then recap. Later, activities were proposed to be used with the students in order to maintain this flow. The readings were not thoroughly discussed in the

class. Instead, they discuss the challenges that may be faced to maintain a flow. Later, a discussion forum was present for the instructors to write down their suggestions in order to maintain the flow of the professional development sessions. Seven people participated in this discussion and these are the ones who participated before.

In module four the instructors were online and they were introduced to the expected barriers of facilitating the student's engagement online. During this online session, the professional development facilitator recorded a video explaining a PowerPoint and commented on each slide. He talked about the barriers to learning like the lack of teacher's readiness towards technology and its impact on students learning experience. In addition, the importance of content knowledge on behalf of the instructor as well as the vitality of an effective infrastructure for students like internet connection and digital gadgets. A further discussion was provided on the teacher's persona online and the degree of class control online and offline. Also, the barriers like focusing on assessment, or content and learning outcomes over ensuring students learning could be a barrier for an effective learning experience. Here the instructors submitted an assignment where they were asked to generate questions that would target the learner's cognitive abilities and generate discussions after they criticised questions that wouldn't be effective to use online and elaborating why they are not effective for learning.

Module five covered the strategies of providing students feedback online. This module was covered online by whether the trainer shared online content for the instructors to read and watch. Module six included more feedback from the trainers, and more details on discussion with the instructors what should and shouldn't be done to ensure an effective blended learning education in their classes. At the end, there was an online survey where the instructors shared their insights about the training, and included their further suggestions.

Professional Development Sessions

The Relevance of the Professional Development to their Needs:

In this section, the instructors revealed their views regarding the relevance of the professional to their needs in general. It is worthy to mentioned that only one instructor is a first-hand experience and all the others taught blended courses before in the school. Thus, there is a slight discrepancy in the opinions below since they were experiencing the training differently. In the areas of satisfaction section, the results presented explain the instructor's positive comments on the training in terms of relevance. On the contrary, the areas of concerns section explain the concerns of some other instructors who mostly taught blended learning before.

Areas of Satisfaction

Instructor 1 expressed that the course was relevant to his needs and gave him a background about how to teach using blended learning.

“I enjoyed creating the welcome video script, and writing my biography and the office hours were...useful. Which was just half an hour by the way. But you felt that the instructor is there and available may be creates a feeling of safety.” (Instructor 1)

Furthermore, asking Instructor 3 on how did the professional development enhanced his teaching strategies in class, he mentioned that it added more confidence in himself as an instructor. He explained that now he knows that he aligns with everyone and there is nothing new that he is no aware of in order to handle blended learning courses and in order to reach the learners satisfaction in a blended learning environment

He added that after the professional development he feels that there is an improvement and that blended learning is getting more acceptable by time. In addition, due to several teaching experiences, he is now more capable of dealing with the students

concerns at the beginning of the course by encouraging them to be consistent with the learning process, attending and engaging online and during the face to face classes.

Instructor 4 mentioned that this was hands on and very relevant to what we were doing and addressed the problems and the challenges that they faced before. It gave a lot of insight and different activities that can be used to increase learner's participation. He highlighted that learning how to effectively increase the learner's participation was the most efficient. He explains that it actually aided him later in his teaching. The Assistant Director actually referred to his welcome video that was shared with the students commenting that it was very effective and students had every good comment on that. Instructor 4 expressed the online and the face to face had various activities and tasks. The pedagogies used online and offline as well as the experience of being a trainee in a blended professional development gave him the feel of the course itself. Thus, he was able to reflect on the students' needs and feelings towards blended learning education. In addition to this, he mentioned that the online sessions were facilitated as promised according to the rules set by the trainers. For example, they responded to the questions in a timely manner, and they allowed a space where the instructors discuss and share opinions through the discussion's forums. Offline was the same as they had the chance to discuss the issues raised and barriers that may be faces in blended learning courses. Therefore, informally, the teachers were able to build on these experiences and align with their shared experience in a way that confirmed their understanding or and better understand the shared misconceptions as well. Instructor 5 echoes this opinion and clarified that it was really useful for a better implementation.

It was practical. We were learning new things and we were confirming on the things we took before and we were actually implementation. So, we were like the students or the learners and they were the instructors. So, they were actually teaching us new information about blended courses. And they were asking us to carry on with some assignments and answer questions and so on. So, the implementation itself of course

made life much easier with a time duration and information on how to actually time this on Moodle (Instructor 6)

She added that such professional development trainings are vital in order to revive the information that you already now as an instructor and in order to always be updated and able to share this with colleagues.

Areas of Concern

Instructor 3 mentioned that there is questioning of the added value of the attended professional development. He mentioned that he already attended several other teaching training sessions where more value was added, especially that he already been teaching in a blended format for more than a year since the piloting. He explained that better tools and suggestions for more interactive activities would have made the training more effective than it actually was. Most importantly, he explained that if this training was provided when he initially faced the problems of the student's resistance towards blended learning, then it would have been more beneficial and effective since it would have "...prepared me before it comes..." meaning the obstacles' faced in implementation. Accordingly, he expressed that it was apparent that for new blended learning instructors, it was of an added value and they were impressed with what was shared. Since, for example, up to this day he has no tools to use online in order to encourage students to participate and learn online.

I didn't get a value... something additional out of it...what I got on the job as a trainer by myself was the same...I was expecting better ways of online engagement, and the most effective methods of engaging students in the online sessions... May be it was covered but I didn't get a new method... By experience I know what to be done. So, nothing additional came to my knowledge. We discussed the obstacles, but I already know the obstacles! (Instructor 3)

Instructor 4 noted that the problem is not in the need to be professionally developed at this point, but it's in the course designed that should have been better. The online material in the courses should be enhanced to meet the level of the face to face classes. For instance, the material shared and the video content was a problem in quality

of content and method of delivery. This should be the concern of the top management and trainers. Thus, he expected more in-depth discussion on the curriculum designed and how to use them in a better way over the discussion about the general teaching strategies that should be used.

Views on the Pedagogy of the Professional Development Sessions

The aim of this section is to explained the instructors expressed opinions about the method of teaching during the training online and face to face. More details are expressed in the areas of satisfaction for the positive feedback, and in the areas of concerns, the instructors hinted some strategies that needs to be taken care of for a better facilitation.

Areas of Satisfaction

Instructor 4 during the interview answered that the process of how the trainers flowed from the introduction to the class till the part of the feedback and evaluation was very systematic. There was a safe environment that helped in sharing their concerns and the positive and negatives of the implementation of blended learning so far.

Instructor 6 said that their strategy of teaching online, and how they used the online tools in a timely manner guided her understanding and her own usage to these tools. For instance, she always had a problem with uploading the quizzes for a certain duration and time. However, noticing how the trainer used it a how it is actually implemented on her helped her to later use it in the class.

They didn't just show us how to do the assessments online. But they actually gave us an assessment online that we had to upload at a certain time before a certain hour on a certain date. And unfortunately, a lot of the instructors missed it and this is what they are trying to prove to us that learners they don't like this because they are not used to it just like the instructors are not used to it...I actually admitted that this workshop really made me feel like I need to engage online more than I used to engage...(Instructor 6)

Areas of Concerns

Instructor 1 explained that though the content of module, like module one for example, was effective, but some of the instructors were resistance during their first encounter and the discussed dwelled for too long to resolve their issues. Thus, this resulted in not connecting what is being said and the some felt that they are discontented from the discussion. Furthermore, the trainers classified them into groups and asked each group to share their concerns. Then, by turn instructors started to share these concerns, the trainers opened a word document, wrote these concerns and suggested proposed solution for each.

So, the online material is decent and its carefully selected. What I would like to see in the face to face session first timing the task. Not just telling to do something and then leave us wondering how long we should be doing this. And not dragging on discussions and going off on tangents because then we feel that the class time was over and we haven't had much value. (Instructor 1)

Furthermore, she explains that the online feedback was great. She mentions that as instructors we are used to providing feedback as a hard copy. But using online tools on her as a learner helps in this method later in her class and resort to giving a quicker feedback online than the hard copy since the online feedback is instant with different tools and the ability to provide more details to the feedback. The hardcopy would be just a way to see the grade.

Views on the Content of the Professional Development Sessions

In this section, the instructors tried to describe how the content facilitated and enhanced their learning experience. Though some of them felt that the content was novel and it added to them, there are some concerns that other instructors felt that should be addressed.

Areas of Satisfaction

The instructors were impressed by the method of starting the professional development as an online course. One of the instructors commented;

“I would give it ten out of ten! I wasn't expecting a getting started module”

(Instructor 1)

Instructor 3 expressed his opinion mention that the idea of flow, and that there should be a connection between the face to face sessions and the online sessions was a good point to be addressed in the training. Instructor 5 explained that the online sessions were very useful especially with the focus on the student's assessment methods, and increasing social presence by using several teaching strategies to motivate the students online especially since this was one of the major concerns during the first implementation of the blended learning courses. Furthermore, on the final sessions of the blended learning courses, Instructor 5 asked the students to record a video with their opinion about the subject which was fun and engaged with the ability to reflect and analyze.

Instructor 6 explained that it was perfectly beneficial because the trainers first addressed their concerns before digging deep on what to do with their learners. For instance, a lot of the learners were ad are against online although many of them are up to date with digitization. However, they are not into using these digital devices in education. Thus, the tools they presented helped in making the students comfortable and able to understand the digital tools and communication makes it easier to learn.

Areas of Concerns

Instructor 5 commented that he needs more strategies on engaging and encouraging learners online. This opinion is echoed by Instructor 3 who had several concerns in relation to the content and the ideas shared. First, he still needs online strategies to help students engage more online. For example, he only still relies on WhatsApp groups to send case studies or material to be reflect on later in the face to face class and not online.

“May be there are some engagement techniques that we need to know about. Are there techniques? Are there online teaching techniques?” (Instructor 5)

Furthermore, he didn't see any impact from the welcome video. He explains that the pedagogy used in the training itself, can be used with the instructors because they are

aware that it's a blended professional development training. Having into consideration that not all the instructors were approachable at the beginning of the training due to technical issues with the instructor's emails. Thus, this could occur in their actual classes since most of the students attend the courses for the first time. And thus, the created emails that the students use may not be accessible nor activated during the week of the course. In addition, some of them are still not aware of Moodle and how to use it.

I am already introducing myself to my students. So, you are telling me to do it before the class. Ok, but I know that these students are not reachable before the class. Guys, let's be realistic. You can approach us because we are the instructors. So, we are approachable. And actually, the shock that not all of the instructors were approachable before the class because not every one of them are checking their emails because of the technical issues... So, it's not reachable. And on the instructor's side it wasn't that working. So, on the learner's side, it will not be working at all! ...This wasn't realistic actually! (Instructor 5)

He suggested that the department may play a role in this by orienting the students while registering through a shared written document that includes the instructions of activating the emails and checking it prior attending the course.

Views on the Assessment and Feedback on the Professional Development

During the training, there were several assessments provided for the instructors. Some of the were online assessments. Below are the instructor's comments on what they liked about it, and also their concerns regarding the assessment itself, and the feedback provided.

Areas of Satisfaction

When we submit the assignments, they give us a scores, and they also write down their comments what we did well. And what we could improve. There is no opportunity to work on the assignment and resubmit it again based on the feedback because it was a very short course. I think it was for what three weeks?! And people had lots of commitments and so on. So, in terms of the work load its very light. You submit the assignment once and that's it but they do provide comments on what went well and what

needs to improve. So, this qualitative feedback is useful. If you take into consideration of course, because may be some people would look at the score and would be like "Alright, fine. That's a good score. Thank you very much!" They feel that the assignment is very frequent and that there is no end of the course test that you can take so it's not ...there is no pressure there is very low stakes. Every module there is a discussion form you are required to make a post based on what you have read and watched and respond to your peers in a meaningful way in a discussion and submit an assignment. So, it's nice how it split the assessments into all different modules. Takes the pressure off you and make sure that you go through the material. You don't cram and you don't memorise every day to keep it in the short-term memory and then leave. It's like a process and we make it through each step by step. So, I like the sequence of the assessment and I guess that's it.

Areas of Concerns

Instructor 4 that the content of the assessment itself was very difficult for him to understand. The assessment was tailored according to the trainer's background instead of the instructor's background. Thus, he shared his feedback later with the trainers mention that the assessment itself needs to be clearer in terms of academic terms for the instructors to benefit. Furthermore, he did not know his results so far despite the shared feedback. For him, the most important part has already been achieved which is improving his methods of teaching. However, knowing the results is a vital aspect.

Summary

In this section, the results revealed the process of diffusing blended learning education at University Y. In addition, it clarified the steps taken that led to implanting blended learning education at the Further Education Schools well. Also, the views of the top-management and the instructors showed that although the student's feedback is not satisfying, they still believe that blended learning could be an effective education innovation in the institution. However, the participants expressed their needs in order to better implement blended learning at the Further Education School. In addition, the participants expressed their areas of satisfaction and areas of concerns about the professional development. The results show that the facilitators need to consider the needs of the instructors more by understanding the nature of the learners they deal with, and by providing education tools and strategies to teach blended courses in general, and online classes in particular. Furthermore, it was shared that the infrastructure and the courses designed need to be revisited as they are considered as the main reasons for the student's dissatisfaction before.

Discussion

According to Garrison, (2017) whenever an education institution adopts a new innovation, it should consider four major aspects before and during implementation to ensure the innovation implementation success. These aspects are the need for an updated strategic plan that includes the innovation as a major goal, a well-established infrastructure that includes credible and reliable Learning Management Systems. The third aspect is to have a collaborative leadership where a leader does not impose his/her perspective, but rather allow a democratic space for faculty and staff to share their ideas and insights. Lastly, there should be a faculty development that consider the training of faculty and staff for the new innovation that is being implemented. In this discussion section, the researcher will present views based on the needed aspects that Garrison, (2017) has presented. These aspects will be related to the case studies mentioned in the literature review section. Furthermore, the researcher will reflect on the support provided for the participants according to their shared answers about the consultation sessions organized for the online content development, and regarding the professional development delivered for the instructors. However, a connection between the phases of adopting blended learning in relation to the diffusion of innovation by Rogers, (2003) needs to be drawn in this discussion. The purpose of this is to answer the three research questions designed for this case study.

Discussion on Research Question One

How was blended learning education diffused as an educational innovation at University Y and at the Further Education School?

The steps of implementing blended learning at University Y could be related to the steps of deciding to diffuse an innovation by Rogers, (2003). In addition, the successful cases of blended learning implementation mentioned in the literature review above adopted from Rogers, (2003) theory to form their theoretical framework. Referring back to these frameworks, it could be explained that the stages of adoption are classified into three stages; the awareness and exploration stage, the adoption and early implementation stage and the mature implementation stage with major three key factors

for each stage of implementation. The key factors are strategy, structure and support (Porter et al., 2014; Porter et al., 2016; Lim & Wang, 2016). University Y as well as the Further Education School already went through the awareness and exploration phase, and are currently in the adoption and the early implementation phase while the mature implementation phase has not been reached yet.

The awareness and exploration phase started at University Y through the knowledge phase when University Y president back in 2013 initiated the discussion on the blended learning implementation. In the Further Education School, the knowledge phase occurred when the Former Dean attended this discussion and showed interest in the implantation. The persuasion phase which is one of the phases of awareness and exploration, occurred when a task force was formed in order to measure the feasibility of the implementation, and it occurred at the School when the Dean informed the top management about blended learning and they confirmed that the possibility of implementing the blended learning education through the market research they did with an outsourcing firm. Both entities are in the implementation phase now. At the Further Education School, there are currently five subjects that are taught in blended. In another department at the school, it was reported that there is a pilot for an academic English program.

In University Y, the Education Technology Center offers a blended certificate for faculty and educators in order to learn about blended learning education. In addition, a readiness to teach and design blended learning checklist is formed to encourage faculty and educators to diffuse blended learning education in their classroom. Furthermore, the first blended course was introduced to the university through a master's program in 2016, and different faculty members from school of engineering and the school of humanities successfully designed and delivered their courses to be taught in the blended format. In addition, one of the language departments is currently working on redesigning the courses to be taught to undergraduate in a blended format. Therefore, it can be added that both the University and the School are trying to reach best practices for a better implementation to reach the confirmation stage.

Garrison, (2017) explains that it is natural that there would be problems on implementing any new innovation. Furthermore, in the case study mentioned in the literature review section, it was pretty clear that the institutions faced some problems at the beginning of implementation (Bajzikova & Lasakova, 2013; Beach et al., 2006; Dinote, 2019; Khan, et al., 2012;) Another example is the study conducted by the Dean and the Director and the Assistant Director of the Languages Department at the same school. As they stated that during implementation, learners were resistance towards the digitization of the material that some of the asked for a refund. However, the results show that over 46% of learners are positive about the digitization of the material and positive about the use of task-based learning and flipped classrooms. Therefore, it can be concluded that though the institutions may face obstacles at the beginning, by the time the innovation is going to be of a success since time is one of the elements in the diffusion of innovation as discussed earlier in the theoretical framework section. (Rogers, 2003) In relation to the addressed case study used here, there is a level of acceptance now on behalf of the learners and the instructors towards blended learning. As mentioned in the results, the students are not against the idea of blended learning education. They are more concerned about the infrastructure and the tools needed online in order to learn instead. This point may be related to the aspect that Garrison, (2017) explains which is the infrastructure.

As discussed earlier, a strategy is always a needed key factor for a successful diffusion of new educational (Lim & Wang, 2016; Porter et al., 2014; Porter et al., 2016). The strategy includes the policies that governs the implantation of blended learning, as well as its purpose and forms of advocacy and level of implementation. Structure includes the need of technology infrastructure and support is the technical, pedagogical support as well as faculty incentives that are essential for implementation (Graham, et al., 2013).

Furthermore, Garrison, (2017) explains that a well-established strategic plan should include several important themes to insure successful operation of the new innovations. Setting a clear vision, identifying the needs and the risks, clarifying the educational principles and outcomes and clarifying the plan for initiation and

implementation. Reflecting on the case study here, University Y did follow this and policy makers exerted a tremendous effort in modifying University Y strategic plan which emphasizes the importance of online and digital education on campus. Furthermore, the Further Education School did the same and its top management did modify their pillars in order to align with the university plan. However, it was clear through the results and the student's feedback that there were several problems in the infrastructure provided for the teachers and the learners.

Having a reliable infrastructure and technology tools like Learning Management Systems (LMS) are vital in creating environments that enable functionality of the online or blended learning. It is essential for supporting and sustaining the creation of knowledge. The diffusion and preservation of this knowledge including the main curriculum and all the pedagogical processes are essential for both the teachers and the learners who have massive contributions to the knowledge shared in the COI. So, investing in the technological infrastructure will surely require full support and commitment of the higher management and across the organization (Garrison, 2017). Although that it is considered a barrier for some professors to use technology as explained by Khan, Hasan, and Clement, (2012) this was not that case with the instructors at the School since the interviewed instructors showed interest and they are already using technology and digitalization. Their concerns were about the implementation of blended learning instead.

Participants from two universities in the USA confirmed that a reliable internet connection and Learning Management System are vital components for a successful blended learning experience. (Porter et al., 2016). This is echoed in the participants shared views in this case study. The department Assistant Director explained that due to the poor infrastructure and the technical problems that occurred on Play posit, the momentum of the course and learning was lost. It was due to this that different online classes were canceled and switched to face to face instead. This impacted the flow of the course negatively and lead to the student's dissatisfaction as well as the instructor's demotivation. Furthermore, the Assistant Director mentioned some of the learners are

already from different governorates. So, when they knew that the online sessions were cancelled, they were frustrated since they book their train tickets according to the shared outline and timing of the sessions. Therefore, the Director of the department confirmed that due to this collapse summer, 2019 the enrollment rate is currently affected negatively and it got drastically decreased in fall, 2019.

According to this, it can be added that the tools used for the blended education courses were of an extreme vitality. This opinion was agreed on by the Assistant Director, Instructional Design Manager and trainer and several instructors. In the results, it is requested by the instructors to have interactive tools and activities that they can use during the online sessions. Thus, it can be concluded that neither the learners nor the educators are against the idea of implementing a new education innovation as the Former Project Leader, Instructional Design and Instructional Technology Designer claimed. There is a willingness to learn and use digitalization and blended learning education since there are students at the Further Education School who come from their governorates to attend these courses. The problem is in the infrastructure and the delivered content and not the resistance against blended learning education. Therefore, the Instructional Design Manager at the Education Technology Centre explained that a better Learning Management Resource is being decided on now since it is true that a better Learning Management Systems and online tools are needed for a better implementation. But in order to ensure the adequate and professional usage of these tools, support is vital for the instructors and the learners to ensure a successful implementation. Also, it is suggested here in this discussion that the top-management, too need guidance and support to better help the learners and the instructors.

Furthermore, Garrison, (2017) explained that innovations cannot take place without the commitment of the higher administration. It is vital that leaders would be open to change and where participants are required to collaborate. Collaborative leaders listen to the participants who develop the ability to critically finding solutions for the imminent problems. A leader's control is required to deal with the challenges that emerge and to ensure that goals are realized in an efficient manner (Garrison, 2017). Reflecting on the

top-management at the school, it was asserted by the several instructors that this role was fulfilled. The top-management allowed direct and indirect support as per Instructor 3's explanation. The participant explained that this was facilitated via meetings and workshops and through the professional development events for the instructors.

Discussion on Research Question Two

What are the stakeholder's views regarding the implementation of blended learning education at the Further Education School?

There are a lot of opinions regarding the decision of implementing blended learning education and regarding the process of implementation. The top management at the Business department expressed their enthusiasm towards blended learning education although they consider it as a top down decision from the University. The instructors also provided positive feedback on blended learning education in general despite the resistance from the students that some of them faced and still facing. Despite this, the concerns shared by the stakeholders and the participants from the researcher's perspective show that the problem occurred not due to the decision of implementing blended learning education or new educational innovations, but rather due to the process of implementation and on the support and infrastructure provided for an effective educational implementation.

As mentioned earlier, the stages of implementation need three key factors for each stage of implementation which are strategy, structure and support. As per the participants views, the three needed to be better planned and implemented. Some of the instructors who are not fully accepting blended learning education are also worried about the process and support provided for implementation and not blended learning education itself. For instance, the professional development provided to the people involved in blended learning is essential and should be carefully designed. Online learning and blended learning require planning based on a coherent theoretical framework. There should be a complete plan that clearly supports the faculty through the whole process starting from designing, moving to delivering and finally assessing the entire experience. On sensing that they are working on solid ground the faculty would do better on designing courses

that are based on pedagogical approaches and coherent frameworks. In a team-based approach both the faculty and the leaders focus on designing and facilitating implementing a series of courses that are designed upon achievable goals that engage the learners to participate effectively in the challenge to innovate and come up with new ideas which reflect enhancement of critical thinking skills (Garrison, 2017).

It can be stated that this was the case throughout the phases of implementation at the Further Education School. This was confirmed by the Instructional Design Manager who facilitated the professional development and it was confirmed by the Instructional Design and Technology Assistant Professional that both consultation sessions for the subject matter experts and professional development for the instructors were both designed according to an approval between both the top-management and the Instructional Designing team. However, a reflection is presented here on the consultation sessions and the professional development training with the aim of a better future implementation.

Referring to another case study, Tawfeek, (2017) for instance provided a future scenario to activate learning communities in Sohag public schools. The purpose of the study was to uncover the challenges faced on establishing educational projects aimed at promoting the skills of the learners and the instructors. The proposed scenario focuses on promoting learning communities with special focus on schools which make the key factor towards development. Moreover, the researcher suggests linking education to the learners' motives and problems. The weak contribution among the participants of the learning community and the insufficiency of implementing professional learning communities in addition to lack of supportive leadership were among the challenges that may limit applying modern techniques.

Tawfeek, (2017) listed several obstacles that might hinder activating learning communities including lack of linking theories to practice. Therefore, it can be concluded that just like the instructors need leaders to help them implement an education innovation, leaders and top-management staff members need clear guidelines on how to implement a new education innovation. In the Business departments case, the leader was the Former Dean who happened to leave the school and resulted in delegating the responsibility to

the Director, the Consultant and the Assistant Director to lead the project with the help of the Center who did not seem to initially understand the nature of the learners and the instructors of the school. Therefore, it can be concluded that clear guidelines are needed for leaders in order to better implement educational innovations and help the instructors to do so. This could happen through professional development for the top-management themselves.

Discussion on Research Question Three

What are the participant's views of the relevance of the professional development training facilitated to the instructors to address their needs?

According to the narration of the instructors who attended the professional development as well as their interviewed professional trainer from the Education Technology Center, it can be concluded that the elements of social, cognitive and teaching presence were there during the professional development sessions whether online and offline. Instructor 1, for example confirmed that the trainer was online during the online sessions which emphasized the idea of teaching presence whether online or face to face. In addition, the strategies used like raising controversial questions during the online session confirmed his teaching presence. The same occurred during the face to face sessions as well. The social and cognitive presence were presented through both the online discussions and the in-class discussions. But for the cognitive aspect to be enhanced, the researcher believes that the content should consider the trainees individual differences in terms of teaching experience and background. In other words, the content should have considered that there are new instructors and that there are experience instructors who already taught in a blended learning format. Therefore, new content and information that include new teaching strategies were needed for a better challenging and enhanced cognitive presence.

Summary

This discussion explained the stages of diffusing blended learning education at University Y and at the Further Education School through the stages of DOI theoretical framework. In addition, case study that followed the Rogers, (2003) theory were

connected to the stages the university went through in addition to the needed support structure and strategy. It can be concluded that these stages and these key factors are vital for an effective implementation of blended learning. In addition, it can be concluded that the timing of the professional development and its sustainability impacts the teacher's role in the face to face and in the online class. As a result, this impacts the learners educational experience and by which impacts the implementation level of success. In addition, the vitality of a reliable infrastructure and educational tools are reflected to ensure a successful implementation and an engaging learning environment for both the educators and the learners. Finally, the importance of supporting the top-management is highlighted in addition to the vitality of having a clear model and rubrics and guidelines for the instruction technology designers and the subject matter experts to better design blended courses.

Limitations

During the data collection phase, the researcher faced some limitations. The first limitation is the documents needed for validity. The research aimed at having the contract of agreement between both the Education Technology Centre and the Business Department at the Further Education School. In addition, there was an attempt to have access to the reports written by the Instructional Designers which include their perception of the instructor's performance. Yet, these were failed attempts as well due to confidentiality. Also, the researcher considered design quantitative questionnaires and distribute it among the participants to answer before the qualitative interview. The purpose was to have a better understanding of the participants answers regarding the questions and then the qualitative interview would fill in the gaps and questions that were not answered. However, this was not applicable since most of the participants are professionals who have full and part time jobs. Therefore, there time and availability are very limited which explain the difficulty in setting a time and date for the one on one qualitative interview. Furthermore, more details were needed on the rate of student's enrolment and the number of instructors in the Business Department. However, all of these documents were not accessible for confidentiality. Thus, there time is limited and it

was not guaranteed that they would do both. Thus, qualitative method was chosen instead to ensure that the participants shared as much information to answer the research questions as possible. Finally, the researcher requested attending the second professional development facilitated to the instructors as an observer. However, this may not be applicable due to time constraints.

Suggestions

In this section, the researcher will provide suggestions based on the major findings and discussions. The suggestions are classified into two categories; the process of implementing blended learning education in higher education institutions in general, and in continuing education in particular.

Suggestions for Implementing Blended Learning Education in Higher Education

The suggestions provided in this study are related to the guidance needed for the institution's leaders, and for the teachers.

Just like the teachers, the leaders need guidance too. Therefore, the university should provide for the school clear shared guidelines based on best practices on the process of diffusing any new education innovation. In addition, professional development events as well as guidance are highly needed for the top management in order to have a deeper understanding of innovations and their vitality.

Furthermore, there should be a better understanding on the teacher's readiness before the implementation of blended learning. The teachers consent needs to be first obtained before implementing the blended learning education, or else it would be forced on them. As an educator, a forced teaching strategy may aid in demotivation on behalf of the teacher and thus the students. Which results to the learner and teacher's dissatisfaction.

In addition, professional development training should address what the teacher needs over what should be shared with the teachers. Therefore, it is suggested to first understand the backgrounds of the teachers in the training sessions, and understand the nature of the learners they are dealing with before facilitating the professional

development training. The timing of the professional development and its consistency ensures the development of the trainees.

Finally, the researcher suggests that different tools like social media enhanced education could be another alternative instead of paying for online infrastructure. According to the researcher's experience as a learner and as an educator, social media enhanced learning provides several tools that can facilitate the online sessions like uploading interactive and educational videos as well as online materials for the learners to use. In addition, online discussion can be easily facilitated through social media like Facebook and WhatsApp groups.

Suggestions for Future Research

According to the limitations mentioned in the limitation sections, there are several research questions for future research. The future research questions may include the following;

- 1- What is the instructor's feedback on the second professional development training?
- 2- What was the content, pedagogy and assessment shared during the second professional development training?
- 3- How do the students evaluate the courses redesigned at the Business department?
- 4- How did the department face the technical issues faced because of the available infrastructure?
- 5- What are the current measures that the Business department take into consideration in order to reach the maturity level of diffusing blended learning education?

In this section, recommendations for a better implementation of education innovation are provided. The focus of these recommendations is on the need to develop both the leaders and the teachers through professional development events in order to understand the vitality of education innovation. Furthermore, there are five research questions that could be used for future research. The first one focused on the instructor's feedback on the second professional development training in order to understand how did the trainer address the instructors needs. The second question explores the effectiveness of the content, the pedagogy and the assessment in comparison to the first professional development. The third questions examine the learner's satisfaction with the redesigned

material in order to understand if the material became more interactive than the previously shared ones. Also, how the department faced the technical problems and the issues faced due to the infrastructure.

Conclusion

This case study followed a narrative design in order to identify the stages and process of diffusion of blended learning education at University Y and at the Further Education School affiliated to it. In addition, it aimed at understanding the stakeholder's perspectives on this implementation, and how the professional development impacted the implementation at the Business department in the Further Education School. The results showed that the university experienced the phases of awareness and adoption, and it is currently in the phases of implementation. It is believed that the institution and its affiliation are the process of reaching the maturity stage of implementation. The participants included the top-management at the school, the trainer of the professional development, the former project leader from the Education Technology Center as well as the instructional technology designer. In addition, the instructor's views were also part of the results in this study. The findings concluded the vitality of an effective professional development that is engaging and promotes the participants learning through cognitive and social presence. It is asserted that the infrastructure and the technology tools used like reliable learning management systems has a role in the success or the failure of the blended learning implementation. In addition, it can be concluded that the support even for the top-management are needed from the university to ensure that both the university goals are successfully and effectively met. Finally, it is believed that the mentioned findings and discussions will aid stakeholders in higher education institutions to better implement blended learning education for their learners.

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Appendix
Appendix 1

The Former Dean of the Further Education School Interview Protocol

Location:

Date/time:

“My name is Nada Ammar, and I will be running this one-on-one interview. The purpose of this interview is to know more about the first blended learning courses that were implemented at the Further Education School since it is important to know what are the successful steps for implementing a new course. Your selection for this interview is due to your experience, and because you are the Consultant of the addressed department, as well as one of the committee members who helped in adopting and implementing the blended learning courses in the mentioned department. The information that you will be sharing today will give a better insight on the implementation of blended learning at the Further Education School. In addition, it will be part of a research study that is submitted to the American University in Cairo in order to fulfill the requirements of obtaining a master’s degree program in International and Comparative Education. Prior to the interview you were contacted to set an appointment for this interview, and two consent forms were signed (one to sign and return and one to keep) prior to the session today. This interview will take approximately 50-60 minutes and we will follow a designed interview protocol.

Do you have any questions? If there are no further questions, let’s get started”

1. Please introduce yourself. In your introduction, kindly mention your previous responsibilities and duties at the Further Education School and your role in the Digital Education Committee at the University Y.
 2. What is the role of the Digital Education Committee at the University Y?
- Probe: -What are the mission and the vision of the Digital Education Committee?

-What was the role of the Digital Education Committee in the implementation of blended learning education at University Y in general and at the Further Education School in particular?

3. What was the model used to implement blended learning at University Y in general, and at the Further Education School in particular?

Probe: What was the role of the Education Technology Center in implementing the blended learning education at the Further Education School?

4. How do you know the importance of professional development for blended learning implementation?

Probe: What were the elements of providing effective professional development at the Further Education School?

5. How do you see the future of blended learning at the Further Education School?

Appendix 2

The Business Department Consultant of the Further Education School Interview Protocol

Location:

Date/time:

“My name is Nada Ammar, and I will be running this one-on-one interview. The purpose of this interview is to know more about the first blended learning courses that were implemented at the Further Education School since it is important to know what are the successful steps for implementing a new course. Your selection for this interview is due to your experience, and because you are the Consultant of the addressed department, as well as one of the committee members who helped in adopting and implementing the blended learning courses in the mentioned department. The information that you will be sharing today will give a better insight on the implementation of blended learning at the Further Education School. In addition, it will be part of a research study that is submitted to the University Y in order to fulfill the requirements of obtaining a master’s degree program in International and Comparative Education. Prior to the interview you were contacted to set an appointment for this interview, and two consent forms were signed (one to sign and return and one to keep) prior to the session today. This interview will take approximately 50-60 minutes and we will follow a designed interview protocol.

Do you have any questions? If there are no further questions, let’s get started”

1. To get started, please introduce yourself.

In your introduction, kindly inform us about your professional background, work responsibilities and duties.

2. What was your role in implementing the blended learning courses?
3. What steps did the department take in order to implement the blended learning method of education to the Business Administration courses?

Probe: How do you view these steps?

4. How did the department prepare the instructors to teach the blended learning courses?

Probe: How do you view the effectiveness* of the professional development sessions?

*Effectiveness: In this interview, effectiveness is the degree of obtaining a certain result successfully. In this study, the focus is on educational effectiveness.

Educational effectiveness is reached when the goals set in a certain educational experience are successfully achieved during and post the educational experience whether this educational experience is through a formal or informal education.

5. After the sessions, do you keep in contact with the participants? Why? If no, why not, and how?
6. How do you explain shifting from blended learning courses to be taught as a flipped classroom instead on the first round?
Probe: Where there any external factors that led to this shift?
7. What are your suggestions to enhance the teachers' professional development at the Further Education School?

Appendix 3

Business Department Director and the Assistant Director of the Further Education School Interview Protocol

Location:

Date/time:

“My name is Nada Ammar, and I will be running this one-on-one interview. The purpose of this interview is to know more about the first blended learning courses that were implemented at the Further Education School since it is important to know what are the successful steps for implementing a new course. Your selection for this interview is due to your experience, and because you are the Consultant of the addressed department, as well as one of the committee members who helped in adopting and implementing the blended learning courses in the mentioned department. The information that you will be sharing today will give a better insight on the implementation of blended learning at the Further Education School. In addition, it will be part of a research study that is submitted to the University Y in order to fulfill the requirements of obtaining a master’s degree program in International and Comparative Education. Prior to the interview you were contacted to set an appointment for this interview, and two consent forms were signed (one to sign and return and one to keep) prior to the session today. This interview will take approximately 50-60 minutes and we will follow a designed interview protocol.

Do you have any questions? If there are no further questions, let’s get started”

1. Please introduce yourself. In your introduction kindly mention your responsibilities and duties at the Further Education School.
2. How does the Further Education School implement new education innovation in general?

Probe: What tools does the Further Education School use to enable teachers to acquire and implement new education methods?

3. What was the model of implementing blended learning at the Further Education School?

4. What is the role of professional development at the Further Education School?

Probe: What hindered delivering it to the instructor's prior the implementation of blended learning at the Further Education School?

5. How would you evaluate the professional development training delivered by the Education Technology Center to the instructors?

Probe: How do you see the relevance of the content, assessment and pedagogy used in relation to the instructors needs?

6. What is your opinion on the implementation of blended learning as an educational innovation at the Further Education School?

7. How do you see the future of blended learning education at the Further Education School?

Appendix 4

The Instructional Design and Project Leader in the Education Center in University Y
Interview Protocol

Location:

Date/time:

“My name is Nada Ammar, and I will be running this one-on-one interview. The purpose of this interview is to know more about the first blended learning courses that were implemented at the Further Education School since it is important to know what are the successful steps for implementing a new course. Your selection for this interview is due to your experience, and because you are the Consultant of the addressed department, as well as one of the committee members who helped in adopting and implementing the blended learning courses in the mentioned department. The information that you will be sharing today will give a better insight on the implementation of blended learning at the Further Education School. In addition, it will be part of a research study that is submitted to the University Y in order to fulfill the requirements of obtaining a master’s degree program in International and Comparative Education. Prior to the interview you were contacted to set an appointment for this interview, and two consent forms were signed (one to sign and return and one to keep) prior to the session today. This interview will take approximately 50-60 minutes and we will follow a designed interview protocol.

Do you have any questions? If there are no further questions, let’s get started”

1. Please introduce yourself. And in your introduction kindly mention your responsibilities and duties at the Education Technology Center.
2. How were you informed about the blended learning education implementation at the Further Education School?
Prob: What was your role in this implementation?
3. How do you view the implantation of blended learning education at University Y?

4. How do you view the implementation of blended learning education at the Further Education School?
5. What model was used in designing the blended courses for the Business department?
6. How do you explain the feedback from the Business department on blended learning implementation?

Appendix 5

The Instructional Technology Designer at the Education Center in University Y Interview Protocol

Location:

Date/time:

“My name is Nada Ammar, and I will be running this one-on-one interview. The purpose of this interview is to know more about the first blended learning courses that were implemented at the Further Education School since it is important to know what are the successful steps for implementing a new course. Your selection for this interview is due to your experience, and because you are the Consultant of the addressed department, as well as one of the committee members who helped in adopting and implementing the blended learning courses in the mentioned department. The information that you will be sharing today will give a better insight on the implementation of blended learning at the Further Education School. In addition, it will be part of a research study that is submitted to the University Y in order to fulfill the requirements of obtaining a master’s degree program in International and Comparative Education. Prior to the interview you were contacted to set an appointment for this interview, and two consent forms were signed (one to sign and return and one to keep) prior to the session today. This interview will take approximately 50-60 minutes and we will follow a designed interview protocol.

Do you have any questions? If there are no further questions, let’s get started”

1. Please introduce yourself. And in your introduction kindly mention your responsibilities and duties at the Education Technology Center.
2. How were you informed about the blended learning education implementation at the Further Education School?
Probe: What was your role in this implementation?
3. What were the shared guidelines in order to facilitate the consultation sessions for the subject matter experts?

4. How do you evaluate the subject matter expert's interaction and participation during the consultation sessions?
5. What are your suggestions to provide a better consultation session for the subject matter experts at the Further Education School?

Appendix 6

The Instructional Design Manager at the Education Center in University Y Interview
Protocol

Location:

Date/time:

“My name is Nada Ammar, and I will be running this one-on-one interview. The purpose of this interview is to know more about the first blended learning courses that were implemented at the Further Education School since it is important to know what are the successful steps for implementing a new course. The information that you will be sharing today will give a better insight on the implementation of blended learning at the Further Education School. In addition, it will be part of a research study that is submitted to the University Y in order to fulfill the requirements of obtaining a master’s degree program in International and Comparative Education. Prior to the interview you were contacted to set an appointment for this interview, and two consent forms were signed (one to sign and return and one to keep) prior to the session today. This interview will take approximately 50-60 minutes and we will follow a designed interview protocol.

Do you have any questions? If there are no further questions, let’s get started”

6. Please introduce yourself. And in your introduction kindly mention your responsibilities and duties at the Education Technology Center.
7. How were you informed about the blended learning education implementation at the Further Education School?
Probe: What was your role in this implementation?
8. How do you view the implantation of blended learning education at University Y?
9. How do you view the implementation of blended learning education at the Further Education School?
10. What are the elements considered in designing the professional development training for the instructors?

11. What is the instructor's feedback on the delivered training sessions?
12. What are your future plans for the following professional development training session?

Appendix 7

Instructors of the Further Education School Interview Protocol

Location:

Date/time:

“My name is Nada Ammar, and I will be running this one-on-one interview. The purpose of this interview is to know more about the professional development sessions that you have attended before to implement first blended learning at the Further Education School since it is important to know what are the successful steps for implementing a new course. The information that you will be sharing today will give a better insight on the implementation of blended learning at the Further Education School. In addition, it will be part of a research study that is submitted to the University Y in order to fulfill the requirements of obtaining a master’s degree program in International and Comparative Education. Prior to the interview you were contacted to set an appointment for this interview, and two consent forms were signed (one to sign and return and one to keep) prior to the session today. This interview will take approximately 50-60 minutes and we will follow a designed interview protocol.

Do you have any questions? If there are no further questions, let’s get started”

1. To get started, please introduce yourself.
In your introduction, kindly inform us about your professional background, work responsibilities and duties.
2. What was your role in implementing blended learning at the Further Education School?
3. What was the model used during the instructor’s consultation sessions with the Education Technology consultants?
4. What were the Education Technology Center teams’ feedback on the instructor’s performance during the consultation sessions?

5. What triggered the need to facilitate a professional development for the instructors at the Further Education School?

Appendix 8

Participants' Consent Form to take part in research

Research Participants Name: _____

Thank you for agreeing to be part of this study. The duration of this interview will be 50-60 minutes. For ethical reasons, it is required that the interviewees explicitly agree to being interviewed and be informed about how the interview will be used. This consent form is vital for to ensure that you understand the purpose of your involvement and that you agree to the conditions of your participation. We don't anticipate any risks in relation to your participation, yet you have the right to stop the interview at any time, and the right to not audiotape this interview. Please read the information sheet, and then sign this form to certify that you approve the following:

- In case you agree on voice recording this interview, the interview will be recorded and a transcript will be produced
- The transcript of the interview will be analyzed by the researcher for research purposes
- Access to the interview transcript will be limited to the researcher, and the research supervisor only.
- We ensure that the information shared during this interview will be anonymous.
- The actual recording will be kept safe with the researcher.

By signing this form, you agree on the following;

- I am voluntarily taking part in this project. I understand that I don't have to take part, to ask not to audiotape the interview and that I can stop the interview at any time;
- The transcribed interview or extracts from it may be used as described above;
- I have read the Information sheet;
- I don't expect to receive any benefit for my participation;

- I understand that I am free to contact the researcher with any questions I may have in the future.

Signature of research participant

Signature of participant

Signature of researcher

I believe the participant is giving informed consent to participate

Signature of researcher

Contact Information

If you have any further questions or concerns about this study, please contact:

Name of researcher: Nada Ammar Ezzatlo

E-mail: nadaammar90@aucegypt.edu

Date

Date

CASE #2018-2019-145



To: Nada Ezzalto
Cc: Dena Riad
From: Atta Gebril, Chair of the IRB
Date: June 19, 2019
Re: Approval of study

This is to inform you that I reviewed your revised research proposal entitled "Instructors' Views on Blended Learning Professional Training: A Case Study of an Egyptian School of Education" and determined that it required consultation with the IRB under the "expedited" category. As you are aware, the members of the IRB suggested certain revisions to the original proposal, but your new version addresses these concerns successfully. The revised proposal used appropriate procedures to minimize risks to human subjects and that adequate provision was made for confidentiality and data anonymity of participants in any published record. I believe you will also make adequate provision for obtaining informed consent of the participants.

This approval letter was issued under the assumption that you have not started data collection for your research project. Any data collected before receiving this letter could not be used since this is a violation of the IRB policy.

Please note that IRB approval does not automatically ensure approval by CAPMAS, an Egyptian government agency responsible for approving some types of off-campus research. CAPMAS issues are handled at AUC by the office of the University Counsellor, Dr. Ashraf Hatem. The IRB is not in a position to offer any opinion on CAPMAS issues, and takes no responsibility for obtaining CAPMAS approval.

This approval is valid for only one year. In case you have not finished data collection within a year, you need to apply for an extension.

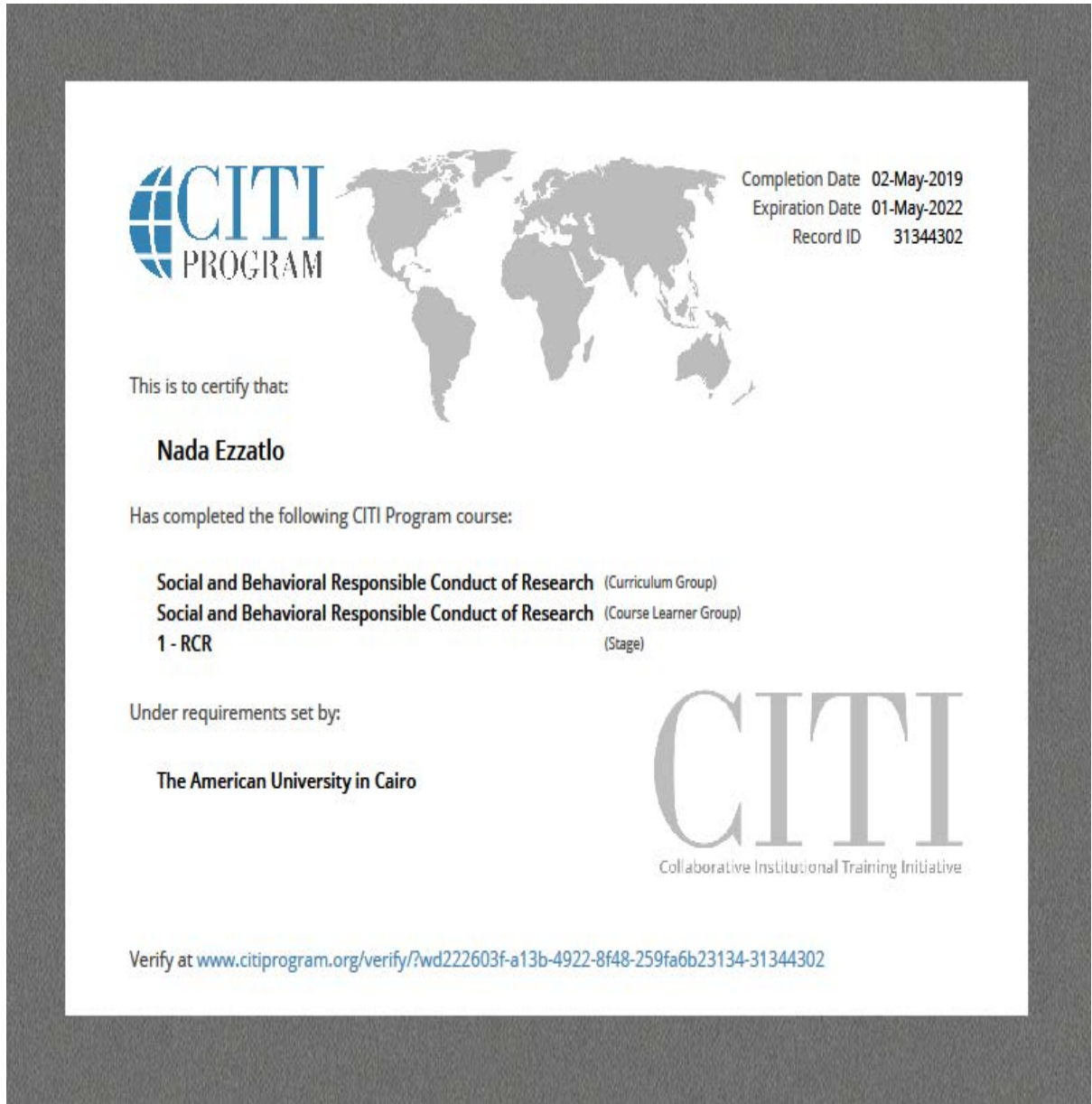
Thank you and good luck.

A handwritten signature in black ink that reads "Atta Gebril".

Dr. Atta Gebril
IRB chair, The American University in Cairo
2046 HUSS Building
T: 02-26151919
Email: agebril@aucegypt.edu

A logo consisting of a yellow square on the left and a dark blue rectangle on the right.

Institutional Review Board
The American University in Cairo
AUC Avenue, P.O. Box 74
New Cairo 11835, Egypt.
tel 20.2.2615.1000
fax 20.2.27957565
Email: aucirb@aucegypt.edu



COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)
COMPLETION REPORT - PART 1 OF 2
COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Nada Ezzallo (ID: 8051511)
- **Institution Affiliation:** The American University in Cairo (ID: 3954)
- **Institution Email:** nadaammar90@aucegypt.edu
- **Institution Unit:** Graduate School of Education
- **Phone:** 01208844086

- **Curriculum Group:** Social and Behavioral Responsible Conduct of Research
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - RCR
- **Description:** This course is for investigators, staff and students with an interest or focus in Social and Behavioral research. This course contains text, embedded case studies AND quizzes.

- **Record ID:** 31344302
- **Completion Date:** 02-May-2019
- **Expiration Date:** 01-May-2022
- **Minimum Passing:** 80
- **Reported Score*:** 94

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Introduction to RCR (RCR-Basic) (ID: 17009)	18-Apr-2019	3/3 (100%)
Authorship (RCR-Basic) (ID: 16597)	01-May-2019	5/5 (100%)
Collaborative Research (RCR-Basic) (ID: 16598)	02-May-2019	5/5 (100%)
Conflicts of Interest (RCR-Basic) (ID: 16599)	01-May-2019	5/5 (100%)
Data Management (RCR-Basic) (ID: 16600)	02-May-2019	5/5 (100%)
Mentoring (RCR-Basic) (ID: 16602)	02-May-2019	5/5 (100%)
Peer Review (RCR-Basic) (ID: 16603)	02-May-2019	5/5 (100%)
Plagiarism (RCR-Basic) (ID: 15156)	18-Apr-2019	5/5 (100%)
Research Involving Human Subjects (RCR-Basic) (ID: 13566)	02-May-2019	5/5 (100%)
Research Misconduct (RCR-Basic) (ID: 16604)	02-May-2019	2/5 (40%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

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