# A Suggested Framework to Overcome Obstacles of Implementing Hybrid Learning to Meet Academic Education Quality Requirements in E-learning

# By:

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## Abstract

This research aims to develop a suggested framework to overcome obstacles of hybrid learning to meet academic education quality requirements in the e-learning. A questionnaire was designed using Google Drive Models for students and Faculty members of the Faculties of Arts - Ain Shams, Cairo and Helwan University to achieve the research purpose. 150 questionnaires were distributed to the study sample, 145 questionnaires were obtained and 142 were valid. The first theme consists of (64) phrases expressing the requirements for the operationalization of hybrid learning under eight themes. (29) Phrase expressing obstacles to hybrid learning operationalization in the university e-learning environment.

The study concluded that there is a statistically significant correlation between the obstacles to hybrid learning operationalization and meeting academic education quality in the university e-learning environment. There are also differences between the responses of students and Faculty members regarding the requirements for hybrid learning operationalization and meeting the academic education quality in the university e-learning environment. In addition, the suggested framework helps obstacles in terms of hybrid learning operationalization to meet the quality of academic education quality requirements in the e-learning environment. In the light of the results, the study made several recommendations

**Key words:** Hybrid learning, Academic Education Quality, E-learning.

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## 1-Introduction

This period is characterized by the successive changes resulting from scientific progress in the field of educational technology and information, and to keep abreast of this progress with the various educational features and experiences it offers; the need to develop educational strategies that provide the educational system with interactive and multimedia environments that help to fully control the educational process, facilitate self-learning and exchange experiences with others, and this has prompted the supervisors to apply e-learning management system.

Although direct traditional education has served the educational process for a long time and has played a major role, progress necessitates that we constantly seek out what is better. Thus, the educational process must always consider mechanisms and means to enable it to play its role effectively and to enable the educational system to update itself and bring it into line with the technological developments that must play an important role in the educational process to restructure and improve its processes and outputs. When the traditional education process is based on the method of indoctrination and the transfer of knowledge and facts from the teacher to the student, this does not serve the age in which we live that requires many complex skills so that the student can effectively cope with society and the labour market after graduation. (Djelloul et.al, 2020, p. 289).

Educational institutions have begun to boost their efforts to look for the method of how learners can acquire creative thinking skills, develop their mental capacities, research, learn, and strategies to solve problems. This kind of education cannot be developed, so education needed to move from teaching during classroom meetings that necessitated the presence of the student and the teacher in one place to the use of technology. The technology in the classroom has been used to improve the educational process and then the path of development has been towards integrating direct classroom teaching with online teaching, in which part of the material is presented via the internet rather than relying entirely on what is given within the classroom.

Educational content is transmitted online and supervised, followed up and evaluated through it (Al-Sharman, 2014, p. 33-35).

## Study Problem

The problem of the current research is illustrated by the lack of good implementing of hybrid learning in academic education institutions because the faculty member and students lack some academic skills, as well as some administrative and technical obstacles that prevent them from being employed in academic teaching at a good level.

In this context, several studies have recommended the need to adopt hybrid learning in academic teaching; (2020) Alrouji, (2020) al et Tyas, (2020) Tupe, (2020) Suebsom, (2020) Hadisaputra, (2020) Putri and Adha, 2020 al et al. Study (2015), Gyamfi, Verkroost et al. (2018), Soylu Akkoyunlu and, Al Saad (2018), Yusuf (2017), Al-Bataa and Abdul Mawla (2018), Jawdet and Najlaa (2016) study.

By conducting a pilot study aimed at students and Faculty members of the Faculty of Arts, Cairo University and Ain Shams University and Helwan University to stop their readiness to employ hybrid learning in the e-learning management system environment. The pilot study found that some of them did not practice hybrid learning in teaching, and they are not familiar with most of its academic teaching skills and have not been trained to use them.

Some have stated that they do not use its time constraints and are committed to classroom teaching following the study plan, and the description of courses and others do not use it because of the existence of some technical constraints. So, there is an urgent need to develop a suggested framework for hybrid learning operationalizing concerning the requirements for good employment on the one hand and the way to overcome the obstacles of hybrid learning on the other.

## Study Questions

Considering what has been presented in the research problem; the current research seeks to answer the following:

1- What are the obstacles in terms of hybrid learning operationalization in the e-learning environment of higher education institutions for the students and the faculty members?

2- What requirements and skills are needed for hybrid learning operationalization in the e-learning environment for the students and the faculty members?

## Study Hypothesis:

**The present research tests the following hypotheses:**

**First** hypothesis: there is a statistically significant correlation between the obstacles to hybrid learning operationalization and meeting the academic education quality in the university e-learning environment.

**Second** hypothesis: There are differences between the responses of students and Faculty members regarding the requirements for hybrid learning operationalization and meeting the academic education quality in the university e-learning environment.

**Third** hypothesis: the proposed framework helps obstacles in terms of hybrid learning operationalization to meet the academic education quality requirements in the e-learning environment.

## Study Importance:

**The study is significant for the following reasons:**

1.  The research draws its importance from the novelty and vitality of the subject, as hybrid learning will be the most common educational pattern shortly. Future studies have highlighted the significance and necessity of shifting from traditional education to e-learning following recent trends in expanding its use.
2.  Identify the requirements for achieving the quality of hybrid learning in academic education institutions and determine the obstacles to its implementation.
3.  Reach a suggested framework for achieving hybrid learning quality requirements in academic educational institutions.
4.  Provide Faculty members, universities, and training centres with a list of requirements for good employment of hybrid learning in the e-learning environment.
5.  Increase the motivation of Faculty members, universities, and training centres towards the use of hybrid learning.

## Study limitations

1. **Substantive limitations:** Requirements for operationalization of hybrid learning in the e-learning environment for Faculty members, teaching centres and students.
   ◈ Obstacles to operationalising hybrid learning in the e-learning environment for Faculty members, teaching centres and students.
2. **Human limitations:** The current research application is limited to Faculty members and students at Cairo Faculties of Arts, Helwan, Ain Shams Universities.
3. **Spatial limits**: The current research application is limited to faculties of arts, Cairo, Helwan, Ain Shams Universities.
4. **Time limitations:** The current study shall be applied in the academic year 2021/2022

## Definition of terms:

**Quality:**

The linguistic meaning of the term "quality" refers to what has become good and works well (Al-Muʿjam Al-Wasīṭ, 1997, p. 145). The National Centre for Quality Assurance and Accreditation of Educational and Training Institutions also defines quality as "accuracy and mastery by adhering to performance standards" (p. 11).

In this study, the researcher identifies the concept of quality as the set of specific standards, procedures, and specifications, which aim at the further development and improvement of education in higher education institutions. These standards and procedures include other components of the institution's system of material, human, administrative, organizational, scientific, input, and transformative processes, which are reflected in the achievement of the objectives of higher education institutions.

**Concept of hybrid learning:**

Hybrid learning is an educational pattern with valuable roots, most of which refer to the combination of teaching methods with diverse means, and is called several terms, including which has several names: blend learning, blended learning (Blend), integrated learning, and blended learning. (Djelloul, 2020, p. 290).

Hybrid learning is defined as "the kind of education through which an effective range of multiple presentation means, and teaching methods are used that facilitate the learning process and is based on the integration of traditional methods in which students meet face to face with e-learning methods, 2014, Alekse & Chris (p. 3)

The researcher refers to the concept of hybrid learning in this study as a study approach, which combines the use of information and communications technology with traditional teaching methods. It aims to help students during their learning to achieve educational goals and relies on virtual means of communication to expand the scope of communication between students and teachers. It works to create an engaging interactive learning environment for students that helps to obtain the best educational results.

Obstacles of hybrid learning implementation:

Obstacles of hybrid learning implementation are operationally defined as; "Problems and obstacles impeding the implementation of hybrid learning by Faculty members and its use in teaching e-courses in the e-learning environment.

## E-learning management system

The blackboard system is operationally defined as; an "E-learning management system; has considerable opportunities for the student to communicate with the rapporteur outside the auditorium at any time and from any place. This system provides different tools to study and handle scientific material content and interact with it easily. In addition to communicating with the course's lecturer and the rest of the students enrolled in the same course by various simultaneous and non-synchronized electronic means. This system enables the teacher to follow up students, provide tests, give feedback, manage discussions, and assess the efficiency of the educational process in the educational institution.

## 2-Literature Review:

E-learning is a pattern of education imposed by this technological revolution in the field of education and learning, and this framework emphasizes (Abdul Hamid, 2015, p. 25) the importance of e-learning as

an area of education technology in: "addressing the needs of education and expanding its programs; providing educational services to all categories of society; overcoming the problems of the State's material potential in classes creation and publicity; contributing to the processes of education and continuous training; benefit from the online sources of education and learning available on the internet and making the most of the time where students have immediate access to information in the place and time they want.

E-learning is defined as "the use of information and communications technology (ICT) in the teaching and learning process. (6. Sekhar,2016, p). It is also defined as "a method of learning about the use of modern communication mechanisms from the computer, its networks and its numerous means of sound, image, graphics, research mechanisms, electronic libraries and other internet gateways, whether remotely or in the classroom. The most important purpose is to use technology of all kinds to communicate the information to the learner in the shortest time, least effort and most useful. (El Moussa & Mubarak, 2015, p. 63)

The development of modern information and communications technology has helped to review the structure of educational institutions to provide new environments and modern ways of education, paving the way for the emergence of a new pattern of education that blends traditional and e-learning, the so-called hybrid learning, which has several names: blend learning, blended learning (Blend), integrated learning and other appellations in Arabic (Khalifa & Trick, 2013, p. 74).

Hybrid learning is a development of e-learning within a multimedia education program to optimize educational objectives and emphasizes that the key to successful hybrid learning is to choose the good mix of means that will achieve the highest impact in education. (Bersin, 2013, p.51).

Many goals can be achieved through the application of hybrid learning, namely the development of self-learning skills that confront individual differences between students on the one hand and the large numbers of students on the other. Development of educational

achievement; development of performance in its overall concept; development and modernization of the scientific research system; development of student preparation programs, as well as the operationalization of the teaching and learning process, dissemination of technology in society, and achievement of comprehensive quality in university education (Ali, 2016, p. 293).

Using hybrid learning can help strengthen students' interest in the practical application of theoretical ideas and try to link them to reality, and contribute to overcoming educational issues (such as student density issues, lack of Faculty member and administrative competence), and development of student's competence as well as the use of human and non-human resources to achieve more effective education. It works to stimulate students' motivation for education, increase achievement and shorten learning time and supports positive trends towards educational activities and means of use, and contributes to the provision of different alternatives to education such as distance and traditional education. It also works to upgrade Faculty members and develop their roles in guidance and mentoring alongside traditional roles in teaching and presenting. Moreover, it meets the student's needs at the time and place that suits him (Abdul Hamid, 2018, p. 55-19).

Hybrid learning has many advantages and benefits that are demonstrated by observing educational outputs, including the enrichment of human knowledge, the quality of the educational product, and teachers' competence (Lubney, 2018, p. 20). 207), diversity of means of knowledge, interaction achievement, educational flexibility, mastery of practical skills, provision of practice and training in the educational environment, and the credibility of evaluation (Al-Sayid, 2018, p. 26).

One of the most important things that underpin the success of hybrid learning is the assurance of standards and quality of its requirements, making it capable of implementation, application, and evaluation, with a supportive, trained and qualified human infrastructure, and a broad community base in the use of computers and the Internet. It also requires an electronic university community

comprising teachers, lecturers, learners, technicians, curricula, laboratories, guidance, orientation, training and education, with the ability to assimilate technology, research, thinking, examination and design, and an effective electronic connectivity system (Al-Shammari & Al-Leithi, 2018, p. 48).

**Hybrid learning requirements are a combination of e-learning requirements and traditional education requirements. (Al Shumli, 2017, p. 85) presents a perception of certain requirements for hybrid learning quality:**

1. Hybrid learning should be integrated with existing traditional teaching methods.
2. The teacher should be able to use modern teaching techniques and use different means of communication.
3. The student should have the skills of using a computer and the internet.
4. Provide software, hardware and infrastructure to prepare trained human cadres and provide the required communication lines that help to transfer this education to the classroom.
5. Teachers become leaders and mentors to educate their students through their use of computers, applications, local and global information networks and the production of appropriate and diverse teaching materials.
6. Seriously consider the subject of e-learning and try to find optimal ways to help integrate it with the traditional method of education.

Despite the advantages of hybrid learning operationalization, there are some obstacles to its application at the university level; e. g., Putri and Adha, 2020, Rasmitadila et al, 2018, Aldosemani et al, Elders, 2018.

A multiplier effort is needed to qualify and train Faculty members and students to apply it.

The lack of seriousness and solely profit making of trading companies that supervise the training and qualification of Faculty members and students, as well as being scientifically unqualified.

High cost of production, hardware, applications, maintenance, and application.

Its association with other technical factors, such as the availability of devices and programs, the ability to create content, as well as the efficiency of communication networks.

Poor English language level of some Faculty members.

Psychological barriers and lack of seriousness in dealing with this method of learning.

The ineffective role of the educational institution as a social system in educational and administrative supervision.

Based on the above, the research seeks to develop a suggested framework to overcome obstacles in terms of hybrid learning operationalization to meet the academic education quality requirements in the e-learning environment

## Previous studies:

Zidane study (2017) sought to reveal the availability of e-learning skills for Faculty members. Computer use and accessories competencies came first, followed by network and internet use competencies and then e-learning culture and finally e-learning design and management.

The results of Al-Nadjar Study (2019) indicate the most important available equipment for the application of distance social service education from the perspective of general practice. There is a distance education centre that coordinates the teaching and registration processes, develops programs determined by the faculty member, administered by human experienced, trained and specialized in distance education, and the institute or college is equipped with appropriate devices, modern means of education and means of providing distance education programs.

Al-Sayid study (2020) recommended the need to prepare and plan for the objectives of the educational process, the content of courses, teaching methods and strategies in university education, modern evaluation methods, and communication skills with the student during e-learning.

The Misbah study (2020) also identified some requirements for the use of digital platforms in higher education, such as the dissemination of e-learning culture, the provision of infrastructure, the provision of a unified educational platform for the university on which both the student and the faculty member interact, and the provision of a guide for the faculty member and the student on how to use digital platforms.

Finally, the results of Saeed study (2021) determined the requirements for the application of hybrid learning in knowledge, skills and technical requirements and found that the level of knowledge, skills and technical requirements for the application of hybrid learning from the point of view of Faculty member of social service institutes and social work faculties is very high.

Despite the advantages of applying hybrid learning, there are some obstacles in terms of hybrid learning operationalization. Many studies have been interested in monitoring the obstacles to applying hybrid learning in university education, including Putri and Adha. (2020) to reveal the obstacles facing hybrid learning implementation. The study classified the obstacles into technical, technical and administrative obstacles, and the study presented a series of solutions to overcome these obstacles. In this context, (Rasmitadila, 2020) study identified some of the obstacles facing hybrid learning implementation, including difficulty with internet access as a result of the slow speed of the network; as well as the need for students to master e-learning skills, as (Aldosemani et al., 2018) study reached numerous factors hindering the wider use of hybrid learning. This includes the lack of e-learning culture by Faculty members and the educational design of e-courses in addition to time constraints. (Gyamfi, 2015) study mentioned some of the obstacles to the use of a hybrid learning environment; including that some Faculty members and students did not have hybrid learning skills,

in addition to the slow internet connection, and lack of access to the internet for some students outside the campus. The researcher recommended improving the information and communication technology infrastructure and building the lecturer's competencies to use the hybrid learning method, Al-Chouyoukh (2018) and Al-Beitar study revealed some of the obstacles to the use of hybrid learning from Faculty members and student points of view. Including the technical side and what is associated with the need of Faculty members and students to train in hybrid learning skills, especially concerning e-learning skills, and the study made by Teng et al. (2017) presented some skills needed to overcome obstacles and issues facing its implementation.

**By interpreting previous studies with analytical insight, we find that:**

1. Most studies emphasized the importance of training, planning, developing students' skills, Faculty member competence, developing e-courses, developing infrastructure, technical equipment, administrative support, follow-up and evaluation as requirements that achieve the quality of hybrid learning such as the Saeed study (2021), Misbah (2020), and Al-Nadjar (2019).
2. There are many obstacles in terms of the application of hybrid learning, including poor potential, preparation, training, and infrastructure, in line with the Avent (2018), Yang (2012), Saeed (2021) study.
3. Previous studies have focused on obstacles, measurement of orientations, integrated education, or application requirements, while the current study focuses on the requirements for achieving hybrid learning quality and the development of a suggested framework from the perspective of the way to organize society to achieve those requirements to achieve quality in the e-learning environment.

**3-Study Methods:**

**Study Tools:**

**The study tools are:**

- A questionnaire for students and Faculty members on the requirements and obstacles of achieving hybrid learning quality in higher education institutions.
- The researcher designed an electronic questionnaire using Google Drive Models for students and Faculty members on the obstacles and requirements for achieving hybrid learning quality in higher education institutions based on the theoretical framework.
- The researcher relied on logical validity by examining the literature and theoretical frameworks and then analysing this literature, research, and studies to reach the different dimensions associated with the problem of studying, to identify the obstacles and requirements for achieving hybrid learning quality in higher education institutions.

## Second: validity of the questionnaire:

The questionnaire was presented to a group of arbitrators and e-learning and educational technology specialists to assure its validity for application and ascertain the validity of the content, the phrases formulation, as well as the relevance of each phrase to the theme it represents. The arbitrators modified and added what they deem necessary. Thus, the questionnaire became valid, 150 questionnaires were distributed to the sample study, 145 questionnaires were obtained, and 142 questionnaires were valid. The first theme phrase consisted of (64) phrases expressing the requirements for the hybrid learning operationalization under eight themes. Table (1) clarify the criteria for identifying the requirements for hybrid learning operationalization in the e-learning system environment in the faculties of arts.

**Table (1): Criteria of identifying the requirements for hybrid learning operationalization in the e-learning system environment in the faculties of arts.**

| T | (Key Requirements) | Number of phrases |
|---|---|---|
| 1 | Planning requirements | 8 |
| 2 | Preparation and training requirements | 8 |
| 3 | Student requirements | 8 |
| 4 | Faculty member requirements | 8 |
| 5 | Course development requirements | 8 |
| 6 | Infrastructure requirements | 8 |
| 7 | Administrative support requirements | 8 |
| 8 | Follow-up requirements | 8 |
| | **Total** | **64** |

The phrases of the second theme consisted of (29) phrases expressing the obstacles of hybrid learning implementation in the academic e-learning environment and table (2) defined the criteria for identifying the requirements for hybrid learning operationalization in the e-learning system environment of the selected sample.

**Table (2): Criteria of identifying the requirements for hybrid learning operationalization in the e-learning system environment of the selected sample.**

| T | Obstacles | Number of phrases | Percentage |
|---|---|---|---|
| 1 | Technical and administrative obstacles | 10 | 34,48% |
| 2 | Faculty member obstacles | 10 | 34,48% |
| 3 | Students' obstacles | 10 | 31,04% |
| | **Total** | 29 | 100% |

### Third: questionnaire reliability

To verify the questionnaire reliability, the Cronbach's alpha coefficient was found for each of the questionnaire themes and then the whole questionnaire, as defined in Table (3)

**Table (3) Questionnaire theme reliability of the requirements for hybrid learning operationalization in the e-learning system environment in the faculties of arts.**

| T | (Key Requirements) | Cronbach's alpha coefficient value |
|---|---|---|
| 1 | Planning requirements | 0,92 |
| 2 | Preparation and training requirements | 0,88 |
| 3 | Student requirements | 0,86 |
| 4 | Faculty member requirements | 0,91 |
| 5 | Course development requirements | 0,89 |
| 6 | Infrastructure requirements | 0,91 |
| 7 | Administrative support requirements | 0,93 |
| 8 | Follow-up requirements | 0,89 |
| | **Questionnaire reliability total** | **0,91** |

Table (3) shows that the values of Cronbach's alpha coefficient are high for each theme, as well as for the whole questionnaire; this confirms that the questionnaire has greater reliability.

To verify the questionnaire reliability on obstacles in terms of hybrid learning operationalization, the Cronbach's alpha coefficient was found for each of the questionnaire themes and then the whole questionnaire, as defined in Table (4)

**Table (4) Questionnaire reliability of obstacles in terms of hybrid learning operationalization in the e-learning environment.**

| T | Obstacles | Cronbach's alpha coefficient value |
|---|---|---|
| 1 | Technical and administrative obstacles | 0,91 |
| 2 | Faculty member obstacles | 0,88 |
| 3 | Students' obstacles | 0,92 |
| | **Questionnaire reliability total** | **0,90** |

It is obvious from table (4) that the values of Cronbach's alpha coefficient are high for each theme, as well as for the whole questionnaire; this confirms that the questionnaire has greater reliability.

## 4-Results and Discussion

First hypothesis: there is a statistically significant correlation between the obstacles to hybrid learning operationalization and meeting the academic education quality in the e-learning environment.

To test the validity of the hypothesis, the following were followed:

1- Calculate the degree of importance of the obstacles in terms of hybrid learning operationalization and the achievement of academic education quality requirements in the e-learning environment and order them according to the degree of importance.

2- The list of obstacles has been made reached in the light of the opinions of a group of arbitrators and e-learning and educational technology specialists in the form of a questionnaire addressed to the research sample of 142 samples out of the 150 samples to which the questionnaire was distributed to identify -according to them- the relative significance of each obstacle under the following equation: Importance = (5 × Number of responses "Strongly agreed" + 4 × Number of responses "Agreed" + 3 × Number of responses "Neutral" + 2 × Number of responses "Disagreed" + 1 × Number of responses "Strongly disagreed")

Maximum degree of importance of each obstacle = (142 members × 5) = 710 degrees.

Table (5) clarify that the results of the questionnaire application describe the degree of importance, and the percentage of the importance of each obstacle according to the faculty members and students. The results are as follows:

**Table (5) The order of the obstacles to hybrid learning operationalization in the e-learning management system environment.**

| T | Obstacle | Degree of importance 710 | Percentage of relative importance | Order according to the degree of importance |
|---|---|---|---|---|
| First: technical and administrative obstacles |
| 1 | Lack of internet hotspots in faculties | 582 | 81,97% | 4 |
| 2 | Lack of wireless network in faculties | 604 | 85,07% | 3 |
| 3 | Lack of technical hardware in faculties | 534 | 75,21% | 7 |

| T | Obstacle | Degree of importance 710 | Percentage of relative importance | Order according to the degree of importance |
|---|---|---|---|---|
| 4 | Lack of computer programs in faculties | 518 | 72,96% | 8 |
| 5 | Lack of provision of information resources in faculties | 408 | 57,46% | 10 |
| 6 | Slow internet connection | 628 | 88,45% | 2 |
| 7 | Fewer laboratories and computers in faculties | 656 | 92,39% | 1 |
| 8 | Some technical problems (disruption of devices and viruses) | 568 | 80,00% | 5 |
| 9 | Insufficient technical and administrative support in faculties | 546 | 76,90% | 6 |
| 10 | Failure to guide students in faculties | 486 | 68,45% | 9 |
| **Second: Faculty member obstacles** | | | | |
| 1 | Poor skills in using e-learning management systems | 558 | 78,59% | 6 |
| 2 | Poor computer and internet skills | 536 | 75,49% | 7 |
| 3 | Fewer specialized courses in computer and internet skills and e-learning patterns | 682 | 96,06% | 1 |
| 4 | Impulse impairment of Faculty member | 570 | 80,28% | 5 |
| 5 | The difficulty of time management by Faculty member | 522 | 73,52% | 8 |
| 6 | Time constraints for computer use, applications, internet and e-learning patterns such as hybrid learning | 610 | 85,92% | 3 |
| 7 | Add unaccounted charges of teaching load for Faculty member | 644 | 90,70% | 2 |
| 8 | Lack or weakness of equivalent material or moral compensation | 596 | 83,94% | 4 |
| 9 | Poor English language proficiency | 492 | 67,30% | 9 |
| 10 | Some Faculty members' resistance to change | 468 | 65,92% | 10 |
| **Third: students' obstacles** | | | | |
| 1 | Students' poor skills in using e-learning management systems | 664 | 93,52% | 1 |
| 2 | Poor students' computer and internet skills | 540 | 76,06% | 6 |
| 3 | Students' impulse impairment | 572 | 80,56% | 5 |
| 4 | Students' weakness in time management skill | 528 | 74,37% | 7 |
| 5 | Lack of technical support provided for | 606 | 85,35% | 3 |

| | | | | |
|---|---|---|---|---|
| | students in university | | | |
| 6 | Many academic requirements such as duties required by students | 506 | 71,27% | 8 |
| 7 | Ordinary physical costs of internet connectivity | 446 | 62,82% | 9 |
| 8 | Students don't get used to a pattern of hybrid e-learning | 628 | 88,45% | 2 |
| 9 | This pattern is not suitable for students in some university faculties | 584 | 82,25% | 4 |

Table (5) shows that the degree of importance and percentage of importance of each obstacle according to the study sample in question ranged from (96,06% and 57,46%) for the three themes of obstacles, and the percentage of importance relative to the first theme of technical and administrative obstacles ranged between (92,39%, 57,46%) The percentage of importance of the second theme relative to faculty members ranged between (96,06% and 65,92%), the percentage of importance for the third theme relative to students ranged from (92,52% and 62,82%).

Table (6) shows students and Faculty members responses regarding the correlation between the obstacles to hybrid learning operationalization and meeting the academic education quality in the university e-learning environment.

**Table (6) Students and Faculty member responses regarding the correlation between the obstacles to hybrid learning operationalization and meeting the academic education quality in the university e-learning environment**.

| T | Dimensions | Research community | Arithmetic average | Standard deviation | Degree of freedom | T value | Significance 0,01 |
|---|---|---|---|---|---|---|---|
| 1 | correlation between the obstacles to hybrid learning operationalization and meeting the academic education quality | Students | 2,49 | 0,38 | 199 | - 2,447 | ** |
| 2 | | Members | 2,63 | 0,37 | | | |

The precedent table shows that: there is a statistically significant correlation at a significance level (0.01) between students and Faculty

member responses regarding identifying obstacles to hybrid learning operationalization and meeting the academic education quality in the university e-learning environment. As a result, we accept the study's first hypothesis, stating that: "there is a statistically significant correlation between the obstacles to hybrid learning operationalization and meeting the academic education quality in the university e-learning environment".

   B- Second hypothesis test: there are also moral differences between students and Faculty member responses regarding the requirements for hybrid learning operationalization and meeting the academic education quality in the university e-learning environment.

## Table (7) planning requirements

| T | Phrases | Students | | | Faculty member | | |
|---|---------|----------|---|---|----------------|---|---|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| 1 | Develop a detailed plan for the hybrid e-learning management process | 2,77 | 0,48 | 1 | 2,52 | 0,57 | 4 |
| 2 | Develop a clear and practical vision, mission and objectives for hybrid learning management | 2,66 | 0,57 | 4 | 2,53 | 0,57 | 3 |
| 3 | Develop appropriate regulations and systems for hybrid learning management | 2,59 | 0,55 | 7 | 2,55 | 0,59 | 1 |
| 4 | Identification of faculty requirements for hybrid learning implementation and management | 2,65 | 0,53 | 5 | 2,54 | 0,62 | 2 |
| 5 | Develop plans to develop Faculty member skills to implement hybrid learning | 2,69 | 0,54 | 3 | 2,47 | 0,65 | 7 |
| 6 | Determine students' needs to implement and manage hybrid learning | 2,58 | 0,55 | 8 | 2,42 | 0,68 | 8 |
| 7 | Develop future strategies for hybrid learning development | 2,72 | 0,55 | 2 | 2,48 | 0,64 | 6 |
| 8 | Budget planning needed for hybrid learning | 2,64 | 0,55 | 6 | 2,48 | 0,59 | 5 |
| **Whole dimension** | | **2,66** | **0,36** | **High level** | **2,5** | **0,43** | **High level** |

**The table shows that:**

According to students, the level of planning requirements to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,66). The first order called for the development of a detailed plan for the hybrid e-learning management process, with an arithmetic average reaching (2,77). This is because the planning process is important in guiding various aspects of the work so that it proceeds according to thoughtful scientific plans, and the last order contained: determine students' needs to implement and manage hybrid learning with an arithmetic average reaching (2,58).

- According to Faculty members, the level of planning requirements to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,5). The first order called for the development of appropriate regulations and systems for hybrid learning management, with an arithmetic average reaching (2,55). The last order contained: determining students' needs to implement and manage hybrid learning with an arithmetic average reaching (2,58).

**Table (8) requirements for preparation, education, and continuous training**

| T | Phrases | Students | | | Faculty member | | |
|---|---------|----------|---|---|----------------|---|---|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| 1 | Training orientation for all categories and levels of the institution | 2,67 | 0,51 | 1 | 2,56 | 0,55 | 2 |
| 2 | Meeting the requirements for each category according to the obstacles faced | 2,64 | 0,55 | 2 | 2,5 | 0,61 | 4 |
| 3 | Training in the management of hybrid learning sessions | 2,5 | 0,62 | 7 | 2,53 | 0,59 | 3 |
| 4 | Training on how to communicate with students and follow up them in hybrid learning management systems | 2,62 | 0,61 | 3 | 2,6 | 0,57 | 1 |
| 5 | E-evaluation training | 2,59 | 0,63 | 4 | 2,48 | 0,64 | 5 |

| 6 | Training in design and management of e-course content Skills | 2,58 | 0,61 | 5 | 2,48 | 0,68 | 6 |
|---|---|---|---|---|---|---|---|
| 7 | Training in digital dialogues management in virtual classes | 2,48 | 0,66 | 8 | 2,46 | 0,68 | 7 |
| 8 | Training in performance measurement methods | 2,55 | 0,62 | 6 | 2,45 | 0,62 | 8 |
| | **Whole dimension** | **2,58** | **0,43** | **High level** | **2,51** | **0,43** | **High level** |

### The table shows that:
- According to students, the level of continuous training requirements to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,58). The first order called for the training orientation for all categories and levels of the institution, with an arithmetic average reaching (2,67). The last order contained: Training in digital dialogues management in virtual classes with an arithmetic average reaching (2,48).
- According to Faculty members, the level of continuous training requirements to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,51). The first order called for training on how to communicate with students and follow up them in hybrid learning management, with an arithmetic average reaching (2,6). The last order contained: training in performance measurement methods with an arithmetic average reaching (2,45).

### Table (9) Requirements for developing students' skills.

| T | Phrases | Students | | | Faculty member | | |
|---|---|---|---|---|---|---|---|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| 1 | Students' proficiency in computer skills and applications | 2,67 | 0,51 | 1 | 2,56 | 0,55 | 2 |
| 2 | Familiarity with digital communication with both faculty members and colleagues | 2,64 | 0,55 | 2 | 2,5 | 0,61 | 4 |
| 3 | Ability to use e-chat in education | 2,5 | 0,62 | 7 | 2,53 | 0,59 | 3 |
| 4 | Knows the different means | 2,62 | 0,61 | 3 | 2,6 | 0,57 | 1 |

| T | Phrases | Students | | | Faculty member | | |
|---|---------|----------|---|---|----------------|---|---|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| | and methods of evaluating data acquisition from websites | | | | | | |
| 5 | Familiarity with the methods of receiving homework and sending answers and inquiries to the faculty member | 2,57 | 0,61 | 5 | 2,41 | 0,65 | 6 |
| 6 | Ability to perform obligations quickly and with quality | 2,54 | 0,62 | 7 | 2,3 | 0,7 | 8 |
| 7 | Training Students in self-learning skills | 2,62 | 0,62 | 2 | 2,41 | 0,63 | 5 |
| 8 | Training students to interact with educational attitudes electronically | 2,69 | 0,59 | 1 | 2,44 | 0,6 | 4 |
| | Whole dimension | 2,59 | 0,45 | High level | 2,45 | 0,44 | High level |

**The table shows that:**
- According to students, the level of developing students' skills requirements to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,59). The first order called for training students to interact with educational attitudes electronically, with an arithmetic average reaching (2,69). The last order contained: familiarity with digital communication with both faculty members and colleagues with an arithmetic average reaching (54,2).
- According to Faculty members, the level of developing students' skills requirements to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,45). The first order called for familiarity with digital communication with both faculty members and colleagues, with an arithmetic average reaching (2,57). The last order contained: the ability to perform obligations quickly and with quality with an arithmetic average reaching (2,3).

**Table (10) Requirements for Faculty member competence support**

| T | Phrases | Students | | | Faculty member | | |
|---|---------|----------|---|---|----------------|---|---|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| 1 | Methods of e-teaching and evaluation proficiency | 2,62 | 0,62 | 2 | 2,6 | 0,51 | 1 |
| 2 | Learn how to use an e-course and how to handle its contents | 2,63 | 0,62 | 1 | 2,51 | 0,57 | 4 |
| 3 | Provide timely feedback on students' questions about the course parts | 2,58 | 0,6 | 5 | 2,57 | 0,59 | 2 |
| 4 | Master how to deal with the management of hybrid learning sessions | 2,54 | 0,61 | 7 | 2,54 | 0,6 | 3 |
| 5 | Diversity in multimedia software (audio, photo, video) used to efficiently deliver electronic content that helps the student to sustain the impact of education | 2,52 | 0,62 | 8 | 2,49 | 0,65 | 5 |
| 6 | Master the use of simultaneous (chat and virtual classes) and asynchronous (forums and e-mail) means used in hybrid learning | 2,59 | 0,57 | 4 | 2,46 | 0,57 | 6 |
| 7 | Use various e-learning methods to serve the current educational situation | 2,56 | 0,61 | 6 | 2,45 | 0,62 | 8 |
| 8 | Use storage modes for the preservation and recuperation of the course's data | 2,61 | 0,56 | 3 | 2,45 | 0,54 | 7 |
| | **Whole dimension** | **2,58** | **0,42** | **High level** | **2,51** | **0,4** | **High level** |

**The table shows that:**

- According to students, the level of requirements for developing Faculty member competence support to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,58). The first order called for mastering how to deal with the management of hybrid learning sessions, with an arithmetic average reaching (2,63). The last order contained: diversity in multimedia software (audio, photo, video) used to efficiently deliver electronic content that helps the student to sustain the impact of education with an arithmetic average reaching (2,52).

- According to Faculty members, the level of requirements for developing Faculty member competence support to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,51).

The first order called for methods of e-teaching and evaluation proficiency, with an arithmetic average reaching (2,6), the second order contained: Providing timely feedback on students' questions about the course parts with an arithmetic average reaching (2,57), and the last order contained: the use of various e-learning methods to serve the current educational situation, with an arithmetic average reaching (2,45).

**Table (11)**
**Requirements for the development and preparation of e-courses**

| T | Phrases | Students | | | Faculty member | | |
|---|---|---|---|---|---|---|---|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| 1 | Educational content is structured gradually | 2,53 | 0,64 | 8 | 2,5 | 0,56 | 3 |
| 2 | There should be a strong correlation between the e-course objectives, content and activities | 2,68 | 0,53 | 1 | 2,51 | 0,54 | 1 |
| 3 | Availability of teams specialized in the development of the content of e-courses | 2,65 | 0,57 | 2 | 2,5 | 0,61 | 4 |
| 4 | The flexibility of course content in the educational program in terms of the modification, addition or deletion | 2,54 | 0,56 | 6 | 2,51 | 0,62 | 2 |
| 5 | Containment of positive interaction tools between students and Faculty members and between students themselves, students, and the courses | 2,56 | 0,58 | 5 | 2,4 | 0,63 | 6 |
| 6 | Provide the student with the opportunity to implement constructive | 2,58 | 0,57 | 4 | 2,42 | 0,58 | 5 |

| T | Phrases | Students | | | Faculty member | | |
|---|---------|----------|---|---|----------------|---|---|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| | tests that demonstrate the progress of the educational process and final tests that accurately determine his level of education | | | | | | |
| 7 | Continue to develop the constructive evaluation of electronic content in light of the results of its application | 2,6 | 0,6 | 3 | 2,39 | 0,63 | 8 |
| 8 | The content of the e-courses of the educational programme should be tailored to international courses standards | 2,54 | 0,58 | 7 | 2,39 | 0,55 | 7 |
| | Whole dimension | 2,58 | 0,4 | High level | 2,45 | 0,4 | High level |

## The table shows that:

- According to students, the level of requirements for the development and preparation of e-courses to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,58). The first order called for the strong correlation between the e-course objectives, content and activities, with an arithmetic average reaching (2,68). The last order contained: educational content is structured gradually, with an arithmetic average reaching (53,2).

- According to Faculty members, the level of requirements for the development and preparation of e-courses to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,45). The first order called for the strong correlation between the e-course objectives, content and activities, with an arithmetic average reaching (2,51). The last order contained: continue to develop the constructive evaluation of electronic content in the light of the results of its application, with an arithmetic average reaching (2,39).

**Table (12) Requirements for the provision of infrastructure and technical equipment**

| T | Phrases | Students | | | Faculty member | | |
|---|---|---|---|---|---|---|---|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| 1 | Availability of a hybrid learning unit coordinating learning, enrolment and development of programs set by Faculty member | 2,61 | 0,53 | 2 | 2,46 | 0,59 | 4 |
| 2 | Provision of appropriate devices and modern teaching media that make the learning process more effective | 2,58 | 0,59 | 3 | 2,48 | 0,56 | 2 |
| 3 | The presence of academic mentors in the hybrid learning unit, facilitating mentoring and guidance | 2,58 | 0,61 | 4 | 2,47 | 0,59 | 3 |
| 4 | Providing a fast internet network | 2,54 | 0,65 | 8 | 2,5 | 0,62 | 1 |
| 5 | Provision of classrooms and laboratories for lectures and lecturers' meetings with students | 2,66 | 0,57 | 1 | 2,39 | 0,58 | 5 |
| 6 | Provide qualified professionals for the operation and maintenance of the system. | 2,55 | 0,6 | 6 | 2,35 | 0,6 | 7 |
| 7 | Provide an e-library containing several e-books | 2,54 | 0,59 | 7 | 2,32 | 0,64 | 8 |
| 8 | Providing qualified administrative cadre to manage hybrid learning | 2,56 | 0,58 | 5 | 2,36 | 0,56 | 6 |
| | Whole dimension | 2,58 | 0,43 | High level | 2,42 | 0,43 | High level |

**The table shows that:**
- According to students, the level of requirements for the provision of infrastructure and technical equipment to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,58). The first order called for the provision of classrooms and laboratories for lectures and lecturers' meetings with students, with an arithmetic average reaching (2,66). Thus, it is important to achieve the quality of hybrid learning in the

educational institution where the internet service, as well as associated devices and laboratories, are available, and ultimately provide a fast internet network, with an arithmetic average reaching (2,54).

- According to Faculty members, the level of requirements for the provision of infrastructure and technical equipment to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,42). The first order called for the provision of a fast internet network, with an arithmetic average reaching (2,5) because hybrid learning is based mainly on the internet and computer and without them, the use of the system cannot be operationalized. The last order contained: provide an e-library containing several e-books, with an arithmetic average reaching (2,32).

**Table (13) Requirements for administrative support**

| T | Phrases | Students | | | Faculty member | | |
|---|---------|----------|---|---|----------------|---|---|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| 1 | Provide guidelines for students and Faculty members on how to use hybrid learning | 2,58 | 0,64 | 4 | 2,49 | 0,62 | 3 |
| 2 | Provide technical advice quickly and continuously to students and faculty member | 2,63 | 0,58 | 2 | 2,46 | 0,59 | 4 |
| 3 | Reduce two hours in teaching load to participate in hybrid learning | 2,51 | 0,57 | 6 | 2,5 | 0,61 | 2 |
| 4 | Institutional commitment towards supporting and encouraging hybrid learning | 2,69 | 0,5 | 1 | 2,5 | 0,59 | 1 |
| 5 | Provide incentives for faculty member participation in hybrid learning | 2,51 | 0,62 | 7 | 2,43 | 0,6 | 6 |
| 6 | Develop students' positive orientations towards hybrid learning | 2,59 | 0,59 | 3 | 2,46 | 0,64 | 5 |
| 7 | Provide advanced automated protection systems | 2,56 | 0,65 | 5 | 2,4 | 0,6 | 7 |
| 8 | University support for student and faculty members | 2,51 | 0,67 | 8 | 2,32 | 0,63 | 8 |

| T | Phrases | Students | | | Faculty member | | |
|---|---------|----------|---|---|----------------|---|---|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| | by providing laptop computers at reduced prices | | | | | | |
| | **Whole dimension** | **2,57** | **0,43** | **High level** | **2,44** | **0,44** | **High level** |

## The table shows that:

- According to students, the level of requirements for administrative support to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,57). The first order called for institutional commitment towards supporting and encouraging hybrid learning, with an arithmetic average reaching (2,69) because the environment that embraces the hybrid learning system must be supportive of the system's application in educational institutions, as well as convinced of the feasibility of this type of education and supportive of its implementation. The last order contained: university support for students and faculty members by providing laptop computers at reduced prices, with an arithmetic average reaching (2,51).
- According to Faculty members, the level of requirements for administrative support to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,44). The first order called for institutional commitment towards supporting and encouraging hybrid learning, with an arithmetic average reaching (2,5). The last order contained: university support for students and faculty members by providing laptop computers at reduced prices, with an arithmetic average reaching (2,32).

### Table (14) Requirements for follow-up and evaluation

| T | Phrases | Students | | | Faculty member | | |
|---|---------|----------|---|---|----------------|---|---|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| 1 | Set necessary solutions to address problems that arise during follow-up and supervision | 2,67 | 0,55 | 1 | 2,37 | 0,58 | 5 |

| T | Phrases | Students | | | Faculty member | | |
|---|---------|----------|---|---|----------------|---|---|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| 2 | Supervision of faculty member study plans | 2,53 | 0,6 | 7 | 2,43 | 0,6 | 2 |
| 3 | A periodic follow-up to measure the faculty member access and use of the e-learning system | 2,53 | 0,66 | 8 | 2,38 | 0,61 | 4 |
| 4 | Monitoring and evaluation of each student and faculty members performance and the availability of their respective follow-up records | 2,64 | 0,56 | 2 | 2,38 | 0,59 | 3 |
| 5 | Follow-up updates in hybrid learning at international universities | 2,59 | 0,64 | 3 | 2,44 | 0,6 | 1 |
| 6 | Issuance of reports on the functioning and management of hybrid learning | 2,55 | 0,58 | 6 | 2,35 | 0,64 | 7 |
| 7 | Use of electronic evaluation forms to assess the faculty member | 2,57 | 0,59 | 5 | 2,37 | 0,59 | 6 |
| 8 | Use of electronic software to analyse hybrid learning results | 2,58 | 0,6 | 4 | 2,34 | 0,6 | 8 |
| | **Whole dimension** | **2,58** | **0,44** | **High level** | **2,38** | **0,42** | **High level** |

## The table shows that:

- According to students, the level of follow-up and evaluation requirements to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,58). The first order called for setting necessary solutions to address problems that arise during follow-up and supervision, with an arithmetic average reaching (2,67). This demonstrates the importance of follow-up and supervision to find appropriate solutions to the obstacles facing the implementation of hybrid learning. The last order contained: periodic follow-ups to measure the faculty member access and use of the e-learning system, with an arithmetic average reaching (2,53).

- According to Faculty members, the level of follow-up and evaluation requirements to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,38). The first order called for following-up updates in hybrid learning at international universities, with an arithmetic average reaching (2,44) and the last order contained: the use of electronic software to analyse hybrid learning results, with an arithmetic average reaching (2,34).

**Table (15) Determine the level of requirements to achieve the quality of hybrid learning in social service education institutions.**

| T | Phrases | Students | | | Faculty member | | |
|---|---------|----------|--|--|----------------|--|--|
| | | Arithmetic average | Standard deviation | Order | Arithmetic average | Standard deviation | Order |
| 1 | Planning requirements | 2,66 | 0,36 | 1 | 2,5 | 0,43 | 3 |
| 2 | Preparation and training requirements | 2,58 | 0,43 | 5 | 2,51 | 0,43 | 2 |
| 3 | Student requirements | 2,59 | 0,45 | 2 | 2,45 | 0,44 | 5 |
| 4 | Faculty member requirements | 2,58 | 0,42 | 4 | 2,51 | 0,4 | 1 |
| 5 | Course development requirements | 2,58 | 0,4 | 3 | 2,45 | 0,4 | 4 |
| 6 | Infrastructure requirements | 2,58 | 0,43 | 5 | 2,42 | 0,43 | 7 |
| 7 | Administrative support requirements | 2,57 | 0,43 | 7 | 2,44 | 0,44 | 6 |
| 8 | Follow-up requirements | 2,58 | 0,44 | 6 | 2,38 | 0,42 | 8 |
| | **Whole dimension** | **2,59** | **0,35** | **High level** | **2,46** | **0,35** | **High level** |

**The table shows that:**
- According to students, the level of requirements to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,59) with its indicators according to arithmetic average order: the first order is planning requirements, with an arithmetic average reaching (2,66). The second order is student skills requirements, with an arithmetic average reaching (2,59). The third order is course development requirements, with an arithmetic average reaching (2,58) with a standard deviation

reaching (0,4) and finally, the seventh order is administrative support requirements, with an arithmetic average reaching (2,57).

- According to students, the level of requirements to achieve the quality of hybrid learning in academic education institutions is high, with an arithmetic average reaching (2,46) with its indicators according to arithmetic average order: the first order is faculty member requirements, with an arithmetic average reaching (2,51) with a standard deviation reaching (0,4). The second order is continuous training requirements, with an arithmetic average reaching (2,51) with a standard deviation reaching (0,43). The third order is planning requirements, with an arithmetic average reaching (2,5) and finally, follow-up and evaluation requirements, with an arithmetic average reaching (2,38).

Table (16) determine the moral differences between the responses of students and faculty members regarding their identification of requirements to achieve quality hybrid learning in higher education institutions.

**Table (16) Differences between the responses of students and faculty members regarding their identification of requirements to achieve quality hybrid learning in higher education institutions.**

| T | Dimensions | Research community | Arithmetic average | Standard deviation | Degree of freedom | T value | Significance 0,01 |
|---|---|---|---|---|---|---|---|
| 1 | Planning requirements | Students | 2,66 | 0,36 | 263 | 3,314 | ** |
|   |   | Members | 2,5 | 0,43 |   |   |   |
| 2 | Preparation requirements | Students | 2,58 | 0,43 | 263 | 1,323 | Not significant |
|   |   | Members | 2,51 | 0,43 |   |   |   |
| 3 | Students' requirements | Students | 2,59 | 0,45 | 263 | 2,504 | * |
|   |   | Members | 2,45 | 0,44 |   |   |   |
| 4 | Faculty member requirements | Students | 2,58 | 0,42 | 263 | 1,367 | Not significant |
|   |   | Members | 2,51 | 0,4 |   |   |   |
| 5 | Course development requirements | Students | 2,58 | 0,4 | 263 | 2,566 | * |
|   |   | Members | 2,45 | 0,4 |   |   |   |
| 6 | Infrastructure requirements | Students | 2,58 | 0,43 | 263 | 3,003 | ** |
|   |   | Members | 2,42 | 0,43 |   |   |   |
| 7 | Administrative support requirements | Students | 2,57 | 0,43 | 263 | 2,356 | * |
|   |   | Members | 2,44 | 0,44 |   |   |   |
| 8 | Follow-up requirements | Students | 2,58 | 0,44 | 263 | 3,618 | ** |
|   |   | Members | 2,38 | 0,42 |   |   |   |

| T | Dimensions | Research community | Arithmetic average | Standard deviation | Degree of freedom | T value | Significance 0,01 |
|---|---|---|---|---|---|---|---|
| Whole dimension | | Students | 2,59 | 0,35 | 263 | 3,024 | ** |
| | | Members | 2,46 | 0,35 | | | |

** Significant at (0,01)          * Significant at (0,05)

- According to the previous table, there are statistically significant differences between students and faculty members responses regarding their identification of planning requirements and development of students' skills requirements, as well as requirements for the development of e-courses, infrastructure and technical equipment requirements; administrative support requirements; follow-up and evaluation requirements, and requirements, and requirements to achieve hybrid learning quality in the social service education institutions as a whole in favour of students' responses.
- There are no statistically significant differences between the responses of students and faculty members regarding their identification of continuous training requirements and the requirements for faculty member competence as one of the requirements for achieving the quality of hybrid learning in social service education institutions.

Thus, there are moral differences between the responses of students and faculty members regarding the requirements of operationalization of hybrid learning to achieve the quality of university education in the e-learning environment, which confirms the validity of the second hypothesis.

Third hypothesis test: the suggested framework to overcome obstacles in terms of hybrid learning operationalization to meet academic education quality requirements in the E-learning environment.

Through the researcher's study to identify obstacles and requirements for the operationalization of hybrid learning, a suggested framework can be developed as follows:

## The suggested planning framework is:

- Develop a detailed plan for hybrid e-learning management.
- Develop a clear and practical vision, mission and objectives for hybrid learning management.

- Develop appropriate regulations and systems for hybrid learning management.
- Identify faculty member requirements for hybrid learning implementation and management.
- Set plans to develop faculty member skills to operationalize hybrid learning.
- Determine students' needs for hybrid learning implementation and management.
- Develop future strategies for hybrid learning development.
- Budget planning needed for hybrid learning.

## The suggested framework for the preparation and continuous training is:

- Orientation of training for all institution categories and levels.
- Meeting the requirements of each category according to the obstacles faced.
- Training in the management of hybrid learning sessions.
- Training on how to communicate with students and follow up them in hybrid learning management systems.

## E-evaluation training:

- Training in design and management of e-course content Skills.
- Training in digital dialogues management in virtual classes.
- Training in performance measurement methods.

## The suggested framework for developing students' skills is:

- Students' proficiency in computer skills and applications.
- Familiarity with digital communication with both faculty members and colleagues.
- Ability to use e-chat in education.
- Knows the different means and methods of evaluating data acquisition from websites.
- Familiarity with the methods of receiving homework and sending answers and inquiries to the faculty member.
- Ability to perform obligations quickly and with quality.
- Training Students in self-learning skills
- Training students to interact with educational attitudes electronically

## The suggested framework for Faculty member competence support is:

- Methods of e-teaching and evaluation proficiency.
- Learn how to use an e-course and how to handle its contents.
- Provide timely feedback on students' questions about the course parts.
- Master how to deal with the management of hybrid learning sessions.
- Diversity in multimedia software (audio, photo, video) used to efficiently deliver electronic content that helps the student to sustain the impact of education.
- Master the use of simultaneous (chat and virtual classes) and asynchronous (forums and e-mail) means used in hybrid learning.
- Use various e-learning methods to serve the current educational *situation.*
- Use storage modes for the preservation and recuperation of the course's data.

## The suggested framework for the development and preparation of e-courses is:

- There should be a strong correlation between the e-course objectives, content, and activities.
- Availability of teams specialized in the development of the content of e-courses.
- The flexibility of course content in the educational program in terms of the modification, addition, or deletion.
- Containment of positive interaction tools between students and Faculty members and between students themselves, students, and the courses.
- Provide the student with the opportunity to implement constructive tests that demonstrate the progress of the educational process and final tests that accurately determine his level of education.
- Continue to develop the constructive evaluation of electronic content considering the results of its application.
- The content of the e-courses of the educational programme should be tailored to international courses standards

**The suggested framework for infrastructure and technical equipment is:**
- Availability of a hybrid learning unit coordinating learning, enrolment and development of programs set by Faculty member
- Provision of appropriate devices and modern teaching media that make the learning process more effective
- The presence of academic mentors in the hybrid learning unit, facilitating mentoring and guidance
- Providing a fast internet network
- Provision of classrooms and laboratories for lectures and lecturers' meetings with students
- Provide qualified professionals for the operation and maintenance of the system.
- Provide an e-library containing several e-books
- Providing qualified administrative cadre to manage hybrid learning

**The suggested framework for administrative support is:**
- Provide guidelines for students and Faculty members on how to use hybrid learning.
- Provide technical advice quickly and continuously to students and faculty member.
- Reduce two hours in teaching load to participate in hybrid learning.
- Institutional commitment towards supporting and encouraging hybrid learning.
- Provide incentives for faculty member participation in hybrid learning.
- Develop students' positive orientations towards hybrid learning.
- Provide advanced automated protection systems.
- University support for student and faculty members by providing laptop computers at reduced prices.

**The suggested framework for follow-up is:**
- Set necessary solutions to address problems that arise during follow-up and supervision.
- Supervision of faculty member study plans.
- A periodic follow-up to measure the faculty member access and use of the e-learning system.

- Monitoring and evaluation of each student and Faculty members performance and the availability of their respective follow-up records.
- Follow-up updates in hybrid learning at international universities.
- Issuance of reports on the functioning and management of hybrid learning

    Use of electronic evaluation forms to assess the faculty member

    Use of electronic software to analyse hybrid learning results

    Based on the above, the suggested framework can be developed to overcome obstacles in terms of hybrid learning operationalization to meet academic education quality requirements in the E-learning environment, which would validate the third hypothesis.

## Results and recommendations

## First: General results

The general results of the study indicate that the achievement of hybrid learning for the quality of education in higher education institutions is high as determined by students and faculty members as it works to raise the level of professional competence of the faculty member and to provide an interactive learning environment to attract the interest of students. It also found that the requirements for achieving hybrid learning quality in higher education institutions as determined by students and faculty are high.

The results of the study also confirmed that planning and developing students' skills are the most important requirements for achieving the quality of hybrid learning in higher education institutions as defined by students: setting a detailed plan for hybrid e-learning management; developing future strategies for the development of hybrid learning and train students to interact with educational attitudes electronically; train students in self-learning skills. And from the faculty members point of view: supporting the competence of faculty members; preparation and continuous training are among the most important requirements for achieving the quality of hybrid learning in higher education institutions, namely training on how to communicate with students and follow-up them in hybrid learning management

systems. Training orientation for all categories and levels of the institution, providing timely feedback on students' questions regarding the parts of the course as well as methods of e-teaching and evaluation proficiency. Thus, some obstacles to the implementation of hybrid learning in higher education institutions that have a poor level of software used in e-learning were found as well as students' lack of skills in dealing with e-learning techniques and the poor infrastructure of advanced communication lines (Internet).

## Second: Recommendations

Based on the above and the results; the researcher recommends the following:

◈ The samples and strategies for e-learning in general and hybrid learning, in particular, should be applied and used to teach different academic programs and courses by faculty members and their collaborators.

◈ Carry out further studies to explore hybrid learning design variables undertaken in the teaching of different academic programs and courses to achieve better educational results.

◈ Prepare training programs aimed to develop e-learning and remote education skills and implement educational strategies for students and faculty members.

◈ Conduct training courses and workshops on key topics such as educational design, e-learning strategies, content creation, use of the learning management system and student assessment (to provide faculty members with hybrid teaching skills).

◈ Grant rewards, and certificates and link e-learning excellence to annual job evaluation criteria and promotions.

◈ Increase the number of laboratories and computers in the university faculties.

◈ Strengthen and increase the speed of the University wireless networks.

◈ Increase fixed internet hotspots in the university faculties.

◈ Technical and administrative support development in the university faculties

❖ Develop specialized courses in computer and internet skills and e-learning patterns; made them compulsory and added to the faculty member's annual assessment.
❖ Material and moral motivation for faculty members to expand the implementation of hybrid learning in teaching and to recognize their achievements during the promotion process. ❖ Organize training courses on time management for the faculty member.
❖ Development of English language proficiency skills for the faculty member.
❖ Implementation of student training courses on the skills of using e-learning management system tools
❖ Provide technical assistance for the student.
❖ Increase motivation for the student through material and moral motivation
❖ Reduce traditional study requirements such as the student's homework and tasks and make them electronic.

## Study Suggestions

Considering the results of the present research, some of the suggested research could be presented as follows:

❖ Effectiveness of hybrid learning in developing faculty members' e-learning skills.
❖ Proposition of a training program based on web strategies for the acquisition of hybrid learning skills by faculty members
❖ Impact of hybrid learning environment design variables on different learning results (achievement, skills, orientation, motivation for achievement).

# 5-Reference list:

## First: Arabic references:

Ahmed, N. (2015). The contribution of e-learning in quality assurance of social service material: Higher Institute of Social Service in Alexandria, Sample, *Journal of Social Service, Egyptian Society of Social Workers.*

Amine, I. & Al-Shanti, D. (2017). E-Learning Management Requirements, *1st International Education Faculty Conference*, Soudan University of Science and Technology, p. 155.

Al-Bataa, H. & Abdulmouly, Al-S. (2018). The impact of the use of both e-learning and blended learning on the development of design skills and the creation of websites for professional diploma students and their orientations towards e-learning technology, *Third Arab Scientific Conference of Arab Association for Education Technology in collaboration with Educational Studies Institute: learning and teaching technology…vitality and creativity*, p. 235-255.

Al-Bitar, H. (2018). A suggested sample for a blended e-learning strategy and skills for its implementation for faculty members of the Faculty of Education of the University of Assiut and the obstacles to its use in academic education. Education technology, series of studies and accurate research, *Egyptian Association for Education Technology*, 18 (1), 85 - 123.

Djelloul, A. (2020), blended education and its role in improving the educational process, *Journal of human sciences of University of Oum El Bouaghi*, vol. 7, No. 1.

Jawdet, M. & Najla. M. (2016). A suggested sample for integrated education in the light of the experience of the Faculty of Sports Education - Alexandria University for Boys, education technology, series of studies and accurate research*, Egyptian Society for education technology, Yearbook* 16, 213-234.

Khalifa, Gh., Al-Hila, M. &Al-Saraira, Kh. (2013) "Difficulties of applying integrated learning in university teaching at the University of the Middle East", *Journal of the Federation of Arab Universities.*

Directory of Quality Assurance and Accreditation of Educational and Training Institutions (2015). Cairo, National Centre for Quality

Assurance and Accreditation of Educational and Training
Institutions.

Zidane, S. (2017). E-learning competences for faculty members of social
service faculties and institutes, *Journal of the Faculty of Social Work
for Social Studies and Research*, No. 9, University of Fayoum,
Faculty of Social Work.

Saeed, A. (2021). Requirements for the implementation of hybrid learning
from the point of view of faculty members of social service colleges
and institutes, *Journal of the Faculty of Social Work for Social
Studies and Research,* No. 22, University of Fayoum, Faculty of
Social Work.

Al-Sayid, R. (2020). Measurement of professional competence of faculty
member of remote education for Social Service Courses, *Journal of
the Faculty of Social Work for Social Studies and Research,
University of Fayoum*, Faculty of Social Service.

Al-Sharman, A. (2014). Integrated education and reverse education,
Jordan, Al-Masirah Publishing & Distribution House.

Al-Shammari, H. & Al-Leithi, N. (2018). knowledge economics. Oman:
Safa Al-Masirah Publishing & Distribution House.

Al Shumli, Q. (2017). Modern patterns in higher education - multimedia
or blended education, Sixth Conference of Deans of the Faculties of
Arts in the Arab Universities Union, University of Jenan, Lebanon.

Al-Chouyoukh, Gh. (2018). Obstacles to the use of integrated learning by
faculty members [unpublished master's thesis]. Faculty of education,
Arabian Gulf University, Bahrain.

Abdul Hamid, Mohammed (2018). scientific research in education
technology, Cairo, World of Books.

Abdul Hamid, M. (2015). Network education system. World of Books.

Al Obeikan, R. (2018). conceptualization of integrated education research,
19/3/2018

Ali, H. (2016). Students' readiness to serve the community for e-learning,
No. 55, Egyptian Society of Social Workers

Misbah, H. (2020). requirements for the employment of digital platforms
in education as perceived by faculty members and students, a study
applied in the University of Fayoum, *Journal of the Faculty of Social*

*Work for Studies and Social Research*, University of Fayoum, Faculty of Social Work.

El Moussi, A. & Al-Moubarak, A. (2005). E-learning basis and applications. Data Network Foundation.

Moussi, M. (2016). Motivation for administrative training in the light of global and local obstacles, Cairo, International Publishing & Distribution House, p. 197.

Al-Nadjar, A (2019). determinants of social work education from the perspective of the general practice of social work, *Journal of the Faculty of Social Work for Studies and Social Research*, University of Fayoum, Faculty of Social Work.

**Second: Foreign References:**

Akkoyunlu, B., Soylu, M. (2018). A Study of Student's Perceptions in a Blended Learning Environment Based on Different Learning Styles, Educational Technology & Society, 11(1),183-193.

 Aldosemani, T., Shepherd, C., Bolliger, D. (2018). Perceptions of Instructors Teaching in Saudi Blended, Learning Environments Association for Educational Communications& Technology, 63, p 341- 352.

Alekse, J.& Chris، P. (2014). Reflections on the use of Blended learning. The University of Sanford.

Alrouji, O. (2020). The Effectiveness of Blended Learning in Enhancing Saudi Students' Competence in Paragraph Writing. English Language Teaching, 13(9), 72-82.

Bersin، Josh (2013). What Works in Blended learning. American society for Training & Development (astd)، Alexdnria، Virginia، USA، retrieved October 2.

Gyamfi, S. (2015). Students' perception of blended learning environment: A case study of the University of Education, Winneba, Kumasi-Campus, Ghana, *International Journal of Education and Development using Information and Communication Technology* 11. (1) 80-100.

Hadisaputra, S., Ihsan, M., & Ramdani, A. (2020). The development of chemistry learning devices based blended learning model to promote students' critical thinking skills. *Journal of Physics: Conference Series* (Vol. 1521, No. 4, p. 042083). IOP Publishing.

Liu, H. (2016). An Analysis on Blended Learning Pattern Based on Blackboard Network Platform. *International Journal of Emerging Technologies in Learning*, 11(9).

Putri, D. and Adha, M. (2020). The problems of implementing blended learning class in civic education students, University of Lampung. Universal Journal of Educational Research, 8(3D), 106-114.

Rasmitadila, R., Widyasari, W., Humaira, M., Tambunan, A., Rachmadtullah, R., & Samsudin, A. (2020). Using blended learning approach (BLA) in inclusive education course: A study investigating teacher students' perception. *International Journal of Emerging Technologies in Learning (IJET),* 15(2), 72-85.

Sekhar, c. (2016). Design of Courseware for E-Learning, Available at: www.cdac.in/ html/pdf/Session4.3.pdf, Accessed 27/11/2014.

Suebsom, K. (2020). The use of blended learning: Social Media and Flipped Classroom to encourage Thinking skills and Collaborate Work in Higher Education.

In Proceedings of the 2020 the 3rd International Conference on Computers in Management and Business (pp. 201-206).

Teng, Y., Bonk, C., Kim, K. (2017). The Future of Blended Learning and the Competencies of Human Resource Development Professional in Taiwan, Paper Presented at *the International Research Conference in the Americas of the Academy of Human Resource Development, Indianapolis,* Feb 28-Mar 4,2007.

Tupe, N. (2020). A Study of the Effectiveness of Blended Learning Program for Enhancing Entrepreneurial Skills Among Women in Maharashtra. *Journal of Education*, 0022057420903257.

Tyas, A., Muam, A., Sari, H., Dewantara, C. (2020). The effectiveness of blended learning in improving students' workplace communication skills: A case study on OLIVE website test result. Lingua Cultura, 14(1), 1-13.

Verkroost, M., Meijerink, L., Lintsen, H., Veen, W. (2018). Finding a Balance in Dimensions of Blended Learning, *International Journal on E-Learning*, 6(3),499- 522.