

**The effectiveness of the creative technologies for the integrated learning program in  
light of the Corona pandemic from the point of view of supervisors and teachers of the  
computer course**

**Proposal**

**For a PhD project in the field of integrated learning**

## **Overview**

The research will investigate the effectiveness of the creative technologies and electronic excellence criteria for the integrated learning program in light of the Corona pandemic from the point of view of supervisors and teachers of the computer course.

## **Introduction**

In the last decade of the twentieth century and the beginning of the twenty-first century, the world is witnessing a huge civilizational shift that includes all aspects and areas of life, and these transformations have cast a shadow on the structure of the educational system, and therefore we need non-traditional education, and addressing all these transformations and changes requires reconsideration In the educational systems concept, content and method (Prahani, et al., 2021), on new foundations based on effective scientific strategies that absorb the available material and human capabilities (Catalano, 2014), and in the framework of this, schools are making growing efforts to reach global levels in education, by re-arranging the traditional educational systems, whether by change or Reform until it conforms to the standards of excellence (Prahani, et al., 2021) and use different creative technologies.

Although direct traditional education has served the educational process for a long time and played its role greatly, development necessitates that we always look to what is best, and accordingly the educational process must always consider mechanisms and means that help it to play its role effectively (Mughtarom, Budimansyah & Suryadi, 2016), and among the means which help the educational system to renew itself and make it keep pace with the time technological developments that must have a role in the educational process in a way that reshapes it and

improves its operations and outputs (Fadillah, Nopitasari & Pradja, 2020, p.174), 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 It serves the era in which we live, which requires many complex skills so that the student can deal effectively in society and the labor market after graduation (Lalima & Dangwal, 2017).

Educational institutions have begun to redouble their efforts to search for how to provide learners with creative thinking skills, develop their mental abilities, research and insight, and strategies for solving problems. It is clear that this type of education cannot be developed, so it was necessary for education to move from teaching during class meetings that require the presence of the student The teacher is in one place to employ different creative technologies, and technologies have been used in the classroom in order to improve the educational process (Muchtaron, Budimansyah & Suryadi, 2016), then the path of development has moved towards integrating between direct classroom teaching and teaching via the Internet, and then part of the material is provided via the Internet instead of completely accreditation on what is given in the classroom, where educational content is transmitted over the Internet and supervision, follow-up and evaluation are carried out through it (Lalima & Dangwal, 2017).

The emergence of the Corona pandemic and the development it produced in information technologies and modern communications contributed to reconsidering the structure of educational institutions to provide new environments and modern methods of education, which paved the way for the emergence of a new type of education that mixes traditional education and e-learning/creative technologies, which is called blended education (Fadillah, Nopitasari & Pradja, 2020, p.173).

Blended education is one of the most important forms of e-learning that has been widely used recently. It works to blend traditional face-to-face education with creative technologies, which research and studies have proven to be effective in providing effective learning environments, and improving learning during the Corona pandemic (Singh, Steele & Singh, 2021, p.141).

(Fadillah, Nopitasari & Pradja, 2020, p.174) decides that blended education is a development of e-learning within an educational program in which multimedia is integrated to achieve educational goals in the optimal way, and (Ciftci, 2020, p.144) stresses that the key to successful hybrid education is choosing a good mix of means that will achieve the highest impact in education, especially during the Corona pandemic.

The results of (Khader, 2016) study showed the importance of using blended learning and its positive impact on improving achievement motivation and performance of the professor and student alike, and recommended paying attention to the concept of total quality in education, standards of electronic excellence for the blended learning program during the Corona pandemic.

(Ciftci, 2020, p.144) study also aimed to introduce blended education, the reasons that led to its adoption and its role in improving the level of the educational process, and concluded that the blended education changed the form and methods of teaching, especially at the higher education level. In improving the educational process from the positives found in both.

One of the most important things on which the success of blended education is built is reassurance about the standards of electronic excellence and its requirements, which makes it feasible, applicable and evaluated, in light of the availability of an educated, supportive, trained

and qualified human infrastructure, and a broad and broad community base in the field of computer and Internet use (Singh, Steele & Singh, 2021, p.142).

It also requires a dynamic electronic school community that includes teachers, learners, technicians, courses, laboratories, guidance and counseling, training and education, and they have the ability to absorb technology, research, thinking, induction and design, and an effective electronic link system (Prahani, et al., 2021).

That is why the study came to investigate the effectiveness of the electronic excellence standards for the blended learning program in light of the Corona pandemic from the point of view of supervisors and teachers of the computer course.

### **Research problem**

Schools, like other institutions, seek to survive and grow in their fields of work, and are working on developing and implementing general strategies to ensure that they achieve their goals. However, schools are facing new and increasing challenges, including financial challenges, local and international competition, the pressures of diverse and changing labor market requirements, and blended learning, as well as a lack of Studies link the criteria of electronic excellence and the blended learning program (Mahyoob, M. (2020), so the current research came to find out the research problem through the following main question:

**What is the effectiveness of the electronic excellence criteria for the integrated creative technology learning program in light of the Corona pandemic from the point of view of supervisors and teachers of the computer course?**

### **Research Objectives**

1. Recognizing the effectiveness of the electronic excellence standards for the integrated creative technology learning program in light of the Corona pandemic from the point of view of supervisors and teachers of the computer course.

2. Detection of statistically significant differences at the significance level ( $\alpha \geq 0.05$ ) in the effectiveness of the electronic excellence criteria for the blended learning program and creative technologies in light of the Corona pandemic from the point of view of supervisors and teachers of the computer course due to the variable (gender, educational qualification, years of experience).

### **Research significance**

The importance of the current research lies in the fact that:

1. It is a new scientific addition of its kind in terms of standing on the effectiveness of the electronic excellence criteria for the blended learning program using creative technologies in light of the Corona pandemic, in addition to the scarcity of studies that dealt with the topic of the current research.

2. It is possible that the current research contributes to increasing the interest of officials in educational institutions by standing on the criteria of electronic excellence for the blended learning program using creative technologies to raise the level of blended learning in Saudi Arabia schools.

3. The current research can benefit researchers in the field of blended education and open up new areas for other studies.

### **Literature review**

**(Huanga, Tangb, Hec and Lic, 2019) study, entitled: “Singapore’s School Excellence Model and student learning: evidence from PISA 2012 and TALIS 2013”.**

The study examines the relationship between key elements of the School Excellence Model (SEM) and student achievement in reading, mathematics and science as measured by the Programme for International Student Assessment (PISA) 2012 and the Teaching and Learning International Survey (TALIS) 2013, using a sample of 166 schools in Singapore. Strategies, quality and resources are identified as school-level dimensions commonly involved in the SEM to select variables in PISA 2012 and TALIS 2013. A multilevel data analysis was conducted using hierarchical linear modelling. The results indicate that a triangulated school strategy focused on strengthening teacher participation, principal commitment and school responsibility has significant relationships with student performance. In particular, teachers' instructional improvement contributed to student achievement, while teacher ratio to support teaching staff accounts for the largest variance in student achievement. Finally, school extra-curricular activities promote well-rounded student development that enhances learning achievement. Findings highlight the importance of school-based accountability that empowers teachers, in building school capacity for student achievement.

**(Khader, 2016) study entitled: “The Effectiveness of Blended Learning in Improving Students' Achievement in Third Grade's Science in Bani Kenana”.**

The study aimed to determine the effectiveness of blended learning in improving students' achievement in third grade's science in Bani Kenana. The experimental method was used, where the study sample consisted of (108) students, and they were divided into two groups, experimental and control, where the experimental group consisted of (54) students, who were taught through blended learning, and the control group, where they were taught by traditional methods, and the results showed that there were statistically significant differences between the experimental and

control group in favor of the experimental group, as it was found that blended learning contributes to improving students' achievement in the science course for the third grade in Beni Kinana .

### **Research Methodology**

Research methodology is the general approach to the whole procedure of the research study (Collis & Hussey, 2009). The focus of research methodology revolves around the problems to be investigated in a research study and hence is varied according to the problems to be investigated.

Each study or research is distinguished by its own approach, the researcher chooses the approach based on the nature of the study and its variables, society, and sample to which the study will be applied, in order to achieve the goals of the study and reach the expected results. The study methodology is also known as the method that the researcher chooses and his followers in implementing the study or research, which includes a set of tools, techniques and special software used for the purposes of examining study tools and collecting and processing primary and secondary data.

The methodology of the research mainly determines the processes that are utilized in order to reach the outcomes and results of the research. A quantitative approach is considered appropriate as it seeks to analyze the relationship among variables. The primary goal of this model is to determine the potential relationship between two or more variables, like in the scenario of this research.



## **Research design**

The current study relied on the mixed method (It includes the descriptive approach by distributing questionnaires to the study sample and the qualitative approach by conducting interviews with the study sample of teachers and supervisors) for its suitability for this study, and to help it recognize the effectiveness of the electronic excellence criteria for the integrated learning program in light of the Corona pandemic from the point of view of supervisors and teachers of the computer course.

## **The research population and sample**

Mostly, in order for the studies are integrated and purposeful, they are applied to a specific society and the research sample is chosen from it, where the study community represents all individuals or things that are related to the problem of the study, the study community also can be defined as all the elements that the researcher tries to work on generalizing the hypotheses by studying them. While the study sample is defined as a partial group of the study community, it has all the characteristics of the original community and is chosen in a specific way that is appropriate to the nature of the study (intentional or random), and then generalize the results to the entire study community.

The target population of this study was the supervisors and teachers of the computer course from different age groups, gender, educational qualifications.

A comprehensive sample was chosen as the most appropriate sampling technique to get a useful and representative sample from the study population.

In this study, convenience sampling methodology has been used, convenience sampling is a sampling method where samples are picked, in parts, or completely at the researcher's convenience, and this approach allows accessible data collection in a limited period of time and is cost-effective. The questionnaires will submit to the supervisors and teachers of the computer course, to present their degree of agreement or disagreement with each clause and conducting interviews with teachers and supervisors. And to calculate the sample size, the researcher used sample equation. The researcher will use statistical analysis tool to obtain results which is SPSS and Steven K. Thompson equation to calculate the sample size, as follow:

$$n = \frac{N \times p(1-p)}{[N-1 \times (d^2 / z^2)] + p(1-p)}$$

Where N = community size

z = standard score corresponding to the level of significance

d = error rate

p = the percentage of availability of the characteristic and the neutral.

### **Study population**

The study population will consist of supervisors and teachers of the computer course whose number is (176) teachers, including (105) male teachers and (71) female teachers, and (11) supervisors including (6) male supervisors and (5) female supervisors.

## **Sample size**

The researcher chose a random sample representative of the study population, which numbered (120) teachers, including (80) male teachers and (40) female teachers, and (11) supervisors including (6) male supervisors and (5) female supervisors.

## **Data collection methods**

The consensus of procedures for collecting and analyzing data, and then obtaining results relevant to the research objective and objectives is what research design means as defined by Kothari (2004). Many benefits of the research design of the survey as its quality since the information collected is not accessible from other sources, the impartial representation of the population of interest, and the standardization of calculation as the same information is collected from each respondent.

The researcher adopted a mixed method; the mixed approach focuses mainly on the interpretation and collection of data using structured surveys to gather data from a large sample. This approach is also considered to be the most appropriate method when the researcher seeks to analyze and understand actions thoughts and motives. This methodology uses deductive reasoning to evaluate similar topic hypotheses by gathering and analyzing data. The questionnaires and the interviews are data collection devices that will be used to gather data and information on the subject of the research.

The questionnaire will build on the conceptual framework drawn from the literature to recognize the effectiveness of the electronic excellence criteria for the integrated learning program in light of the Corona pandemic from the point of view of supervisors and teachers of the computer course; it is modified several times based on the supervisor's suggestions and comments till

reaching the final copy. The three constructs namely validity, reliability and objectivity are the three dimensions of establishing the study credibility. The questionnaire will check several times to make sure it is free from grammatical errors, ambiguous clauses, and its understandability, and ease of responding to each clause.

### **Data analysis methods and Statistical methods**

The data collection and analysis process are considered one of the basic processes in scientific studies and research so that the researcher can find appropriate solutions to the study problem. Where accurate and recent data can help in analyzing the study problem and determining the best ways that can be followed to address it and to achieve the goals of the study, in addition to that it also contributes to defining the basic features and characteristics of the study community and sample, as it contributes to the design of study tools and to verify their validity and reliability. In order for the researcher to achieve the goals of the study, he uses many methods in collecting the data that he will need in preparing the study and working to solve the study problem and treat it. The researcher in this study has classified the data into the following:

- **Initial data:**

To obtain the primary data for the current study, the researcher prepared the questionnaire tool and distributed it to the head sample, and then worked on analyzing it and obtaining the primary data for the study.

- **Secondary data:**

The researcher collected secondary data and information related to the current study axes from various sources, and the most important of these sources are:

1. Published books and articles related to the subject of the study.
2. Research and studies related to the title of the study and published in specialized periodicals.
3. Websites and published articles related to the subject of the study.

In this study, the researcher will rely on the use of the Statistical Package Program (SPSS).

A number of statistical tools will be used, which are categorized as follows:

**Descriptive statistics metrics:**

- Repetitions and percentages to show the characteristics of the study population, broken down by categories, for personal (demographic) variables.
- Standard mean and deviations to determine the level of both the dependent and independent variable and the order of the dimensions of the study variables.

**Analytical Statistics Metrics:**

- Alpha Cronbach test to test the stability of the study tool.
- One-Sample T Test.
- Simple regression analysis.

After developing the study tools and extracting validity and reliability, and after distributing it to the study sample members, and after completing the process of collecting the necessary data and information about the study variables, the following statistical methods will be used:

- To answer the study questions in the questionnaire, arithmetic means and standard deviations will be used. The five-point Likert scale will be adopted to correct the study tools, by giving each of its paragraphs one degree out of its five degrees (a very large degree, a large degree, a medium degree, a few, very few) and they are represented digitally (5, 4, 3, 2, 1) On the order, the following scale will be adopted for the purposes of analyzing the results:

- From 1.00 - 2.33 Low

- From 2.34- 3.67 Medium

- From 3.68- 5.00 large

The scale will be calculated by using the following equation:

The upper limit of the scale (5) - The lower limit of the scale (1) / The number of categories required (3)

$$(5-1)/3=1.33$$

And then add the answer (1.33) to the end of each category.

- To answer the hypotheses of the study, arithmetic averages, standard deviations, and Two-way analysis of variance will be used, in order to test the degree of statistically significant differences in the answers of the study sample that are attributed to the study variables (gender, years of experience, educational qualification) and to find out the significance of the differences.

### **- Statistical methods**

The data play a vital role in achieving the goals in studies and scientific research, as it is used in investigating evidence in addition to verifying the correctness or error of hypotheses, in

addition to providing answers about the questions and inquiries discussed by the researcher. After the process of collecting primary and secondary data from its sources and storing them, the researcher seeks to convert these data into facts and information that can be documented and utilized by applying a set of statistical methods and treatments of data after statistically processed. Thus, the results of the conclusions formulated in an appropriate manner based on the preliminary data of the study, after analysis and treatment, achieve the objectives of the study and represent its results.

In this research also accepted the measurable approach. In the initial stage, the researcher will distribute survey and conducting interviews to supervisors and teachers of the computer course, so as to recognize the effectiveness of the electronic excellence criteria for the integrated learning program in light of the Corona pandemic from the point of view of supervisors and teachers of the computer course. After that the researcher will analyze and tabulated the data and made the suitable classifications, and then the researcher will use statistical analysis tool to obtain results which is SPSS.

### **Search terms:**

The study includes the following terms:

#### **1. Electronic excellence criteria:**

- **Procedural:** The researcher defines it as: It is a measure that determines the qualities, characteristics and characteristics that must be available in schools to judge the quality of academic and institutional performance in it.

- **Idiomatically:** (Muxtorjonovna, 2020, p.507) defines it as: "strategic combination of online and in-person instruction".

Also (Lalima & Dangwal, 2017, p.129) defines it as: "an innovative concept that embraces the advantages of both traditional teaching in the classroom and ICT supported learning including both offline learning and online learning".

- **Procedural:** It is the learning that includes the usual direct learning and e-learning, and it contains a number of educational media that are designed to complement each other, and it includes many learning tools such as virtual cooperative learning, self-learning, and internet-based curricula, and it is taught in Saudi Arabia schools.

- **Procedural:** It is the learning that includes the usual direct learning and e-learning, and it covers a numeral of educational media that are intended to complement each other, and it contains several learning tools for instance, self-learning, internet-based curricula and virtual cooperative learning, and it is taught in Saudi Arabia schools.

### **Search Limitations**

The current study includes the following limits:

- **Objective limitation:** The study was limited to recognition of " The effectiveness of the electronic excellence criteria for the integrated learning program in light of the Corona pandemic from the point of view of supervisors and teachers of the computer course".

-**Spatial limit:** the study is limited to Saudi Arabia schools.

- **Human limit:** the study is limited to supervisors and teachers of the computer course in Saudi Arabia schools.



- **Time limit:** second semester

### **References**

Catalano, H. (2014). The Opportunity of Blended-Learning Training Programs in Adult Education - Ascertaining study. *Procedia - Social and Behavioral Sciences*, 142 (1), 762 – 768.

Ciftci, B. (2020). The Effect of Blended Learning on Academic Achievement and Attitudes at Social Studies Courses. *Open Journal for Educational Research*, 4(2), 143-150.

Collis, J., & Hussey, R. (2014). *Business research: A practical guide for undergraduate and postgraduate students*. Available at: [https://www.researchgate.net/publication/38177413\\_Business\\_research\\_A\\_practical\\_guide\\_for\\_undergraduate\\_and\\_postgraduate\\_students](https://www.researchgate.net/publication/38177413_Business_research_A_practical_guide_for_undergraduate_and_postgraduate_students)

Fadillah, A., Nopitasari, D., & Pradja, B. (2020). Blended Learning Model During the Covid-19 Pandemic: Analysis of Student's' Mathematical Disposition. *Jurnal Teori dan Aplikasi Matematika*, 4(2), 173-181.

Huanga, J., Tangb, Y., Hec W., & Lic, Q. (2019) Singapore's School Excellence Model and student learning: evidence from PISA 2012 and TALIS 2013. *Asia Pacific Journal Of Education*, 1(1), 1-17.

Khader, N. (2016). The Effectiveness of Blended Learning in Improving Students' Achievement in Third Grade's Science in Bani Kenana. *Journal of Education and Practice*, 7(35), 109-116.

Khader, N. (2016). The Effectiveness of Blended Learning in Improving Students' Achievement in Third Grade's Science in Bani Kenana. *Journal of Education and Practice*, (35)7, 109-116.

Kothari, C. (2004). *Research methodology*. New Delhi: New Age International (P) Ltd.

Lalima & Dangwal, K. (2017). Blended Learning: An Innovative Approach. *Universal Journal of Educational Research*, 5(1), 129-136.

Lalima & Dangwal, K. (2017). Blended Learning: An Innovative Approach. *Universal Journal of Educational Research*, 5(1), 129-136.

Mahyoob, M. (2020). Challenges of e-Learning during the COVID-19 Pandemic Experienced by EFL Learners. *Arab World English Journal*, 11 (4) 351-362.

Muchtarom, M., Budimansyah, D., & Suryadi, A. (2016). *The Implementation of Integrated Education to Develop the Intact Personality of Students*. Available at: file:///C:/Users/User/Downloads/jurnalcover.pdf

Muxtorjonovna, A. (2020). Significance of Blended Learning In Education System. *The American Journal of Social Science and Education Innovations*, 5(1), 507-511.

Prahani, B., Jatmiko, B., Hariadi, B., Sunarto, M., Sagirani, T., & Amelia, T. (2021). Development Blended Web Mobile Learning Model on COVID-19 Pandemic. *TEM Journal*, 10(4), 1879-1883.

Singh, J., Steele, K., & Singh, L. (2021). Combining the Best of Online and Face-to-Face Learning: Hybrid and Blended Learning Approach for COVID-19, Post Vaccine, & PostPandemic World. *Journal of Educational Technology Systems*, 50(2), 140–171.