

# Designing Virtual Educational Environment in Light of Distance Learning Requirements to Develop Creative Teaching Skills for Faculty Members at University of Hail

TAMARA AWAD KHEDER ALOBEID ALLAH<sup>1</sup>, THANAA ABD AL RASHEED MUHAMMAD IBRAHIM<sup>2</sup>, SEHAM ALSAYED SALEH MURAD<sup>3</sup>

<sup>1</sup>Assistant Professor Curriculum and teaching methods - Faculty of Education, University of Hail

<sup>2</sup>Assistant Professor of Creed and Contemporary Doctrines Faculty of Education, University of Hail

<sup>3</sup>Curriculum and teaching methods professor Faculty of Education, University of Hail

Correspondence to: Tamara Awad Kheder Alobeid Allah

## ABSTRACT

**Summary of the Research:** The current research aimed to design a virtual learning environment in light of the distance education requirements for the development of creative teaching skills among faculty members at the University of Hail. The descriptive analytical approach was used and an expert opinion poll was used about the list of distance education requirements and the list of creative teaching skills; The results of a questionnaire to identify needs, which were applied to a sample of (120) faculty members at the University of Hail, showed that all areas of training needs in the field of creative teaching are required and important, and that the degree of training need for creative teaching skills in its five axes came to a large degree, of creative teaching and creative teaching skills related to fluency, flexibility and originality for the research sample. The teaching staff at the University of Hail is based on the requirements of distance education and is judged by specialists in training programs according to a special evaluation card to take into account the availability of technical and educational standards in its design.

**Keywords:** environment design - opinion poll - e-learning - creativity in teaching - general design

## INTRODUCTION

Technological progress has led to the emergence of various methods and ways that are supported by e-learning technologies and strategies with their various components, based on the use of technological innovations to achieve the required learning better, and through the use of computers, satellites and satellite channels, in addition to websites through the Internet that allow the learner in the place of his choice, and the time he chooses, without being restricted to specific places or times. (Abdel Moneim, 2010).

The educational system has witnessed a remarkable development to keep pace with the tremendous development in information and communication technology (Inform Comm Technology (ICT)), which led to a tremendous development in electronic educational programs using computers and e-learning mechanisms by activating and integrating the rich interaction of e-learning strategies (Amin, 2012: Abdel Moneim, 2010)

Creative teaching is a human activity, consisting of a set of activities and processes carried out by the teacher and the learner together with the aim of achieving the desired goals of the learning process. Creative teaching is achieved when the teacher is creative. Creative teaching is an activity that reflects the teacher's ability to invest all his cognitive, professional and personal potentials to help his students acquire information and build it on their own, and in their own way that gives it a meaning that is consistent with their knowledge building, unleashing their potential for learn (Abu Sweirah, 2009).

The stages of creative teaching are represented in the following stages (Mahmoud, 2018; Al-Qarni, 2012, Yahya, 2013): Planning stage for creative teaching, Implementation stage for creative teaching, and the Evaluation stage for creative teaching. In creative teaching, teaching methods are linked to controversial methods of thought, managing discussion and learning events, and achieving motivation for self-learning, and accordingly creative teaching proceeds according to a map of basic teaching skills to achieve outstanding teaching outcomes, where these behaviors can be observed and measured in light of the educational standards that must be taken into account in learning.

**Research Objectives:** This study mainly aims to:

1- Determining the distance learning requirements necessary to build a virtual learning environment to develop the creative teaching skills of faculty members at the University of Hail.

2- Revealing the necessary criteria for designing an adaptive virtual learning environment in light of the distance learning requirements for the development of creative teaching skills among faculty members at the University of Hail.

3- Determining the creative teaching skills that should be developed among faculty members at the University of Hail

4- Determining the training needs of faculty members in the field of creative teaching

5- Designing a virtual learning environment in light of the requirements of distance learning to develop the creative teaching skills of faculty members at the University of Hail

**The field study for the research:**

**Firstly:** Applying a list of training needs, after making the arbitrators' (experts) adjustments, the requirements of distance learning and creative teaching skills were presented to the faculty members at the University of Hail affiliated with the university's faculties in the academic year 1442/2021 AD. Their number was (40) faculty members in scientific and (80) faculty members in theoretical faculties. In order to determine the rate of need (needs it - does not need it) and determines the rate of importance (important - somewhat important - unimportant). The results of the application were as follows in order to determine the rank of the questionnaire statements, where: This is for each phrase within the study tool according to the Likert scale, which explains the responses of the research sample, as follows:

Table 5: The arithmetic average significance scale for calculating the degree of need

Arithmetic average		Agreement rate
From	To	
1	1.50	Don't Need It
1.51	2	Need it

**Secondly,** analysis of the fields of the questionnaire (training needs for creative teaching skills in its fields.

The questionnaire targeted (determining the training needs of faculty members) (the research sample), and it includes five fields (main themes), and the following is a presentation of the results for these fields (themes) as a whole, as shown in Table (5)

Table 6 Agreement rate on fields as a whole and the questionnaire in total (from the research sample point of view) (N=120)

Field	No. of indicators	Needing Rate				Importance rate					
		Arithmetic average	Standard deviation	%	Need rate	Rank	Arithmetic average	Standard deviation	%	Need rate	Rank

Planning for creative teaching	12	1.960	0.07	98%	Need it	2	2.984	0.18	96.47%	Important	3
Implementation of creative teaching	16	1.962	0.06	98.10%	Need it	1	2.906	0.16	96.78%	Important	1
Evaluation of creative teaching	11	1.946	0.12	97.30%	Need it	3	2.897	0.26	96.57%	Important	2
Creative teaching skills associated with fluency	7	1.876	0.20	93.8%	Need it	5	2.724	0.42	90.80%	Important	5
Creative teaching skills associated with flexibility and originality	10	1.907	0.19	95.35%	Need it	4	2.832	0.37	94.40%	Important	4

Table 6: shows that: The rate of training need for creative teaching skills in its five fields ranged from (1.876 by 93.8%) to (1.946 by 97.30%). Implementation skills of creative teaching came in the first rank. The importance rate is from (2.724 with a percentage of 90.80%) to (2.906 at a rate of 96.87%) and implementation skills came in the first place, which confirms its importance at the professional level

**In the first field:** Training needs related to planning skills for creative teaching. The aim of this field is to identify the rate of their need for training in planning skills for creative teaching. (12) skills are shown in Table (6). From the analysis of the data contained in Table (6), it is clear that: The training needs mentioned in the first field "needs related to planning skills for creative teaching" obtained the "rate of training need" for all skills, with a percentage of 98% and a rate of importance of 96.47%. These results are consistent with previous studies Such as the study of Gow (2000), the study of (Al-Tawdari, 2002), the study (Hassanin, 2003), the study (Murad, 2006).

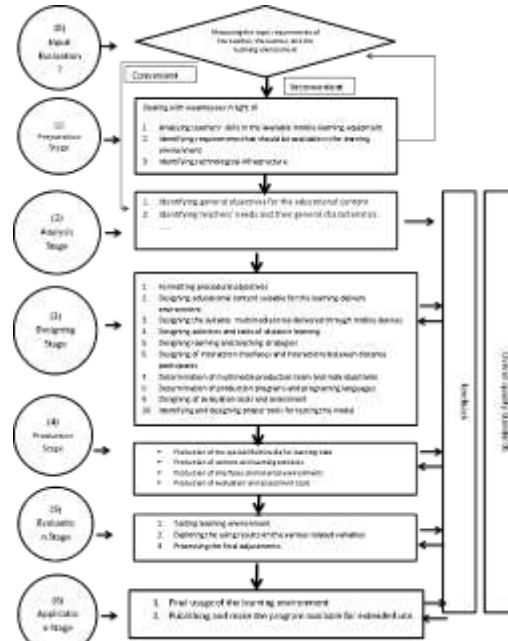
**In the second field:** training needs related to the implementation skills of creative teaching. From the analysis of the data contained in the previous table (6), the research sample sees that the training needs mentioned under the implementation of creative teaching skills have a "very high" training need of 98.10%. While all skills in this field in the rate of importance got (important) with a rate of 96.87%, and all of them fall under the "important" rate range." These results are consistent with previous studies such as the study of Qazamel 1998, Gow 2000, Al-Tawdari 2002, Hassanein 2003, Murad 2006, Abu Al-Ala 2009.

**As for the third field:** Training needs related to evaluation skills for creative teaching. While all skills come in terms of the rate of importance as "important" to the research sample, with a percentage of 96.57%, and thus they need more training from their point of view. These results are in correspondence with many previous studies, such as the study of Abdul Elah 2001, Yahya 2013, Gow 2000, Al-Tawdari 2002, Hassanin 2003, Murad 2006, Al-Qarni 2012, Harhash 2016, Obaida 2017, Salem 2020, and Al-Amri 2020, in their approach to provide a training program for a sample of teachers of different subjects.

**As for the fourth field:** training needs related to creative teaching skills related to fluency: and from the analysis of the data contained in Table (6). It is clear that the research sample sees that the training needs training needs in the axis. So that it is considered one of the most skills that are practiced and mastered by faculty members (research sample), and they do not need further training on them from their point of view. These results are partially correspondence with some previous studies, such as Gow 2000, Al-Jamal 2017, Al-Zind and Al-Shatnawi 2016, Al-Agha 2015, Al-Tawdari 2002, Hassanin 2003, Murad 2006, Al-Qarni 2012, Harhash 2016, Mohammed 2016, Obaida 2017, Salem 2020, and Al-Amri 2020, in their approach to provide training programs for a sample of teachers of different subjects, such as the study of Abdul-Alah (2001) and the study of Yahya (2013).

**As for the fifth field:** Training needs related to creative teaching skills related to flexibility and originality: from the analysis of the data contained in Table (6).

There is an availability of interaction between all components of this model in terms of structural evaluation, revision, modification and improvement. This model was characterized by simplicity and ease of application in all stages by the ability to add or delete some elements as needed, also there is flexibility and reciprocal influence between its components. The following is a presentation of the form of the instructional design model:



Model 1

To design of the experimental treatment material, we used the educational design model by El-Desouki and Mustafa (2015), and the following is a detailed explanation of those stages:

First, the trainers' requirements: The requirements of the proposed training program were identified in light of the requirements of distance learning for trainers as follows:

- Dealing with modern learning devices
- The possibility of solving problems that you may encounter while dealing with e-learning devices
- Dealing with all computers, phones and internet use

Table 7 schedule of the training program sessions

No.	Day and Topic	No. of sessions	No. of hours
1	Day 1 opening session	1	1
2	Day 1 planning for creative teaching	2	3
3	Day 2 implementation skills for distance creative teaching	2	3
4	Day 3 teaching strategies in light of distance learning requirements	2	3
5	Day 4 evaluation methods for distance learning	2	3
6	Day 5 creative teaching skills	2	3
Amount of days and sessions		11 sessions	16 ours

Table 8 the used multimedia

No.	Topic	Suitable multimedia
1	Planning skills for creative teaching	Text, Video, Images
2	Implementation skills for creative teaching	Text, Video, Images
3	Distance learning strategies	Text, Video, Images
4	Distance evaluation process	Text, Video, Images
5	Creative teaching skills	Text, Images
6	Fluency skills for creative teaching	Text, Images

**Designing the training content for a proposed training program:** In light of the objectives that were previously identified, the researchers identified the topics within the training program, and after preparing the content by reviewing a number of previous research, studies and reviewing electronic publications, the researchers made a list of criteria for designing the proposed training program In light of the requirements of distance learning:

Accordingly, five main topics for the content of the proposed training program were identified:

- Planning skills for creative teaching.
- Skills of implementing creative teaching from a distance and their number.
- Distance learning strategies.
- Distance evaluation process.
- Creative teaching skills and their number.

**Surfing the proposed training program:** There are two types of touring within the proposed training program:

- I. Surfing for the trainee: The learner is logged into the website via the Internet by any means of e-learning devices on the following special website for the proposed training program: [http://eschooly.net/edu\\_env/index.php](http://eschooly.net/edu_env/index.php)

**1- The trainee shall:**

- Read the instructions on the proposed training program.
- Access is made to the lectures page in order to register within a proposed training program.

**2- Trainer surfing (coach)**

- The trainee can navigate between the content of the program through the pages in an easy and flexible way. Defining production programs and programming languages. The researchers identified the requirements for programming the proposed training program in light of the distance learning requirements for the development of creative teaching skills for faculty members, in terms of multimedia, program tests and distance learning skills, which were represented in the following table and the purpose of each program is as follows:

Table 9: programs used in designing the proposed training program

No.	Program	Purpose
1	PHP	Programing language for dealing with interactive web pages
2	SQL	Programing language for dealing with data bases
3	Microsoft Expression Web	Program for designing and developing web pages
4	Wonder share quiz creator	Producing exercises, and tests for self-presentation within the training content
5	Microsoft Word 2010	Writing content texts and formatting them to comply with the training environment
6	Internet Explorer Or Fire fox	Web browser enables reaching the multilevel training environment

The researchers produced the interfaces for interaction between each of the trainer and the trainees, and based on their design criteria, which were reached in the list of environment standards. These interfaces are:

**A. User Interaction Destinations (trainees), including the following:**

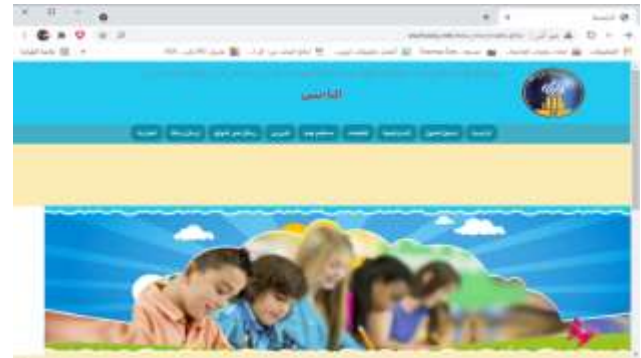
Within the framework of the training content site, which includes (home page, lectures, my page, compose a message, about the site, contact us) in order for the trainer to control the proposed training program in light of the requirements of distance learning. The following figure shows the user interaction.

The tools are designed at the top of the main page, which contains a set of hyperlinks that enable the trainee to navigate within the pages of the proposed training program. The trainee's communication toolbar is designed according to the requirements of distance learning.

**B. Trainer interaction destinations (the coach), including the following.**

An interaction interface (Enter a proposed training program) has been created, to make control through the interface between

the trainer and the trainees, and control it through the following: trainees' data, lectures, tests, and results, and sending and receiving electronic messages to and from the trainee.



Pic 2: user interaction destination

**Recommendations and Suggestions**

**Firstly, Recommendations:** Based on the findings of the current research, the following recommendations can be made.

- Activating virtual classrooms in the creative teaching of faculty members in light of the requirements of distance learning
- The necessity of identifying the training needs of faculty members and working on developing creative teaching skills. Through virtual learning environments
- The necessity of providing training programs for faculty members in all faculties on the design of adaptive virtual educational environments.

**Secondly, Research suggestions:** In continuation of the current research, and in light of the results of the research, and in light of the previous recommendations, the following research is proposed:

- The effect of designing a virtual learning environment on developing creative thinking skills for university students

**REFERENCES**

1. Abdel Karim, Yassin and others. (2009). The virtual environment is an interactive environment. Baghdad.
2. Abdel Moneim, Ahmed Fahim Badr (2010). The effect of using both e-learning and blended learning in developing the computer maintenance skills of the assistant teacher in the light of e-learning standards and the trend towards blended learning, Journal of Educational Technology, Cairo, Egyptian Association for Educational Technology, Vol. 20, Issue 1, pp. 162-163.
3. Abdel Razzaq, Salah Abdel Samee. (2007). E-Learning - Virtual Education. Retrieved from WWW.SLAH.JEERAN.COM.
4. Abdel Wakeel, AlFar Ibrahim. (2000). Computer Education and the Challenges of the Beginning of the Twenty-first Century, 2nd Edition, Dar Al-Fikr Al-Arabi: Cairo.
5. Abdel-Ilah, Nayel Youssef (2001). The effectiveness of a training program to develop some creative teaching skills for Arabic language teachers and its impact on developing creativity among their students, Master's thesis, Faculty of Education, New Valley University, Assiut.
6. Abu Fakhr, Zarifa Salama al-Khatib. (2012). The effect of virtual learning on the achievement of Sociology teaching methods for students of educational qualification diploma in Syrian virtual universities. Damascus University - College of Education, p. 44.
7. Abu Sitta, Faryal (2011). The effectiveness of a training program in developing creative teaching skills and reducing teaching anxiety among students of the Faculty of Education within the framework of quality, educational and psychological studies, Journal of the Faculty of Education in Zagazig, Mansoura University, 1 (70), 113-161.
8. Abu Sweirah, Ahmed (2009). A training program based on instructional design in the light of training needs to develop some technological skills for teachers of technology, unpublished master's thesis, Islamic University, Gaza.
9. Agha, Murad Haroun Suleiman (2015). The effectiveness of the proposed training program for secondary school mathematics teachers to develop their creative teaching skills and its impact on the creativity of their students in the Gaza Strip, PhD thesis, Faculty of Education, Ain Shams University: Egypt.

10. Ahmed, M. E., (2019) The Effects of a New Virtual Learning Platform on Improving Student Skills in Designing and Producing Online Virtual Laboratories, *Knowledge Management & E-Learning*, v11 n3 p364-377:
11. Al-Amri, Faisal Yahya (2020). The effect of a training program on developing the creative teaching skills of gifted student teachers and their acquisition of creative productivity skills, *International Journal of Educational and Psychological Sciences*, Arab Foundation for Scientific Research and Human Development, (39), 109-138.
12. AlAswad, Zahra (2018). The level of creative teaching skills among faculty members in Algerian universities, *The Arab Journal for Quality Assurance of University Education*, University of Science and Technology, 11 (38), 61-84.
13. Al-Barashdia, Hafida Bint Suleiman (2018). The effect of an electronic program based on the method of individualizing training in the professional development of career guidance specialists in the Governorate of South Al Batinah in the Sultanate of Oman, *Journal of Educational and Psychological Sciences*, University of Bahrain - Scientific Publishing Center, 19(3), 259-286.
14. Al-Baz Jamal. (2001). Introducing the Internet and the various electronic means and their uses in the educational process and educational technology. Conference on the educational process in the age of the Internet. Nablus, Palestine.
15. Al-Dariush, Ahmed Abdel-Alim. (2017). Technological innovations and educational innovation. Cairo: Arab Thought House.
16. Al-Hadi, Muhammad. (2005). E-learning via the Internet. Cairo: The Egyptian Lebanese Publishing House.
17. Al-Jamal, Somaya Helmiya Muhammad and Al-Astal, Ibrahim Hamed (2017). The effectiveness of the proposed training program based on active learning strategies in developing creative teaching skills for mathematics teachers in the basic education stage, an unpublished master's thesis, College of Education at the Islamic University, Gaza.
18. Al-Kilani, Tayseer (2006). *The Economics of E-Learning* (Third Edition). Amman: The Arab Network for Open and Distance learning.
- Al-Najjar, Iyad Abdel Halim Muhammad (2010), The level of multiple intelligences among members of the science faculty at Umm Al-Qura University and its relationship to their creative teaching skills, (The Seventh Arab Scientific Conference for the Gifted and Talented - Our dreams come true under the auspices of our talented children).
19. Al-Qarni, Abd al-Ilah bin Musa (2012). Evaluation of creative teaching skills for science teachers at the primary stage, Master's thesis, College of Education, King Khalid University
20. Al-Shboul, Muhannad Anwar and Alyan, and Ribhi Mustafa (2014 AD), e-learning, (Dar Safaa for Printing, Publishing and Distribution - Jordan), p. 13.
21. Al-Tawdari, Awad Hassan (2002). Providing some creative mathematics teaching skills for middle school mathematics teachers, *Educational Journal*, Sohag College of Education, South Valley University, (17), 197-240.
22. Al-Zind, Walid Khader and Al-Shatnawy, Youssef Aqil Khattar (2016). The rate of professional education teachers' practice of creative teaching skills in the light of the knowledge economy in Jordan, *Journal of the Association of Arab Universities for Education and Psychology*, 14 (4), 258-312.
23. Amin, Salah al-Din (2012). The effectiveness of e-learning strategies in developing and disseminating interactive simulation software design skills among students of the College of Education. PhD thesis, Mansoura, Faculty of Education, Mansoura University
24. Designing a virtual learning environment in light of the requirements of distance learning to develop the creative teaching skills of faculty members at the University of Hail
25. Dvies, T. (2006). Creative teaching and learning in Europe: promoting a new paradigm, *The Curriculum Journal*, 17(1), 37-57.
26. El-Desouky, Mohamed Ibrahim and Mustafa, Abu El-Nour (2015). The effectiveness of a training program based on integrating e-learning, cloud, and mobility in developing the skills of using some smart phone applications in education among basic education teachers. Egyptian Association for Educational Technology, Cairo.
27. Filmban, Samir bin Noureddine (2004). The effectiveness of a proposed program to provide student teachers with a specialization in mathematics creative teaching skills, *Journal of Teachers' Colleges*, Umm Al-Qura University, Makkah Al-Mukarramah, 4(2), 85-150.
28. Gow, G.(2000). Understanding and Teaching Creativity, *Tech Directions*, 59(6).
29. Haitham, Hassan. (2018). Virtual world technology and augmented reality in education. Arab Academic Center.
30. Hajji, Ahmed (2003). Open University Distance learning from Correspondence Education to the Virtual University. Cairo: The world of books.
31. Hamutoglu, N., B.& Gemikonakli, O & Duman, I., & Kirksekiz, A., & Kiyici, M.,(2020). Evaluating Students Experiences Using a Virtual Learning Environment: Satisfaction and Preferences .*Educational Technology Research and Development*, v68 n1 p437-462 Feb 2020. 26 pp.
32. Harhash, Safwat Tawfiq Hendawy (2016). The proposed training program based on divergent thinking strategies to develop creative teaching skills for Arabic language teachers in the preparatory stage and its impact on developing creative writing skills among their students, *Journal of the College of Education*, Al-Azhar University, 4(170), 368-405. Hassanein, Badria Muhammad (2003). A training program based on creative teaching skills and its impact on developing these skills for science teachers in general education stages in Sohag, studies in curricula and teaching methods. Faculty of Education, Ain Shams University, The Egyptian Association of Curricula and Teaching Methods, (84), 15-63.
33. Hegazy, and Muhammad. (2016). Quality standards for virtual classrooms from the point of view of faculty members. The Sixth International Arab Conference to Ensure Teaching at King Saud University with Sudan University of Science and Technology. Riyadh.
34. Hunaiti, Abdel Rahim (2004). Quality and quality standards in open learning and distance learning (first edition). Jordan: Series of Publications of the Arab Network for Open and Distance learning.
35. Ibrahim, Ghada Shehata (2001). The effectiveness of computer-aided educational technology on the student-teacher competencies in applying the steps of instructional design and its relationship to the pragmatic learning style. Unpublished Master's Thesis, Cairo, Women's College, Ain Shams University.