

# Effectiveness of A Proposed Program for Training Social Studies Teachers in the Light of Electronic Functional Competencies

Prof. Atef Mohamed Saied Abdallah

Umm Al-Qura University, Makkah, Makkah, SA

## Summary

The study aimed to build a proposed program for training Social Studies teachers in the light of electronic functional competencies, the researcher used the experimental method with a quasi-experimental design, the study sample consisted of (37) Social studies teachers in Ismailia. A proposed program in the light of electronic functional competencies. A measure of awareness of the dimensions and components of electronic feasibility. The study concluded several results: There is a statistically significant difference at the level of ( $\alpha \leq 0.01$ ) between the average scores of the teachers of the research group in the pre and post measurements of the measure of awareness of the dimensions and components of electronic functional competencies in favor of the teachers scores in the post-measurement. Training Social studies teachers on the functional electronic competencies necessary for them to keep up with educational developments.

## Keywords:

*Social studies teachers, the functional electronic competencies*

## Introduction:-

The teacher is the corner stone of the educational process and the pillar of every social and educational reform, the quality of education is linked to the quality of the curricula and the teachers who implement them.

The official attention is focused on preparing the teacher for this profession and providing him with the various knowledge and skills that make him able to perform his task perfectly.

In light of modern technological developments in the era of digital electronic life in accordance with modern and contemporary educational trends, it has become a duty for the teacher to be aware of technical and technological methods and their developments. (Watson, 2018)

The spread of e-learning resources and the ease of dealing with them has led to the competition of educational institutions in working to employ them in education.

As a result, educational and training institutions and centers have sought to shift from traditional learning to blend e learning.

Among the requirements of that transformation is the necessity for the teacher to acquire new skills that are

commensurate with the cognitive and technological development witnessed by educational systems. (Abdelmwla, 2011, 3)

Many international bodies interested in teachers such as The National Council for Accreditation of Teacher Education Programs (NCATE) and The International organization for Technologies in Education (ISTE) have identified several standards related to educational technology for teachers and indicators of their achievement, which they must be familiar with, know and employ well in the educational process through their preparation programs.

These criteria include understanding the nature of technology, planning and designing learning environments, assessment and evaluation and taking into account ethical legal and humanitarian issues 'therefore, the teacher's mastery of information skills and dealing with technological innovations has become a basic requirement of teacher preparation and in-service training programs. (Zaho, 2016, 241).

If we analyze the tasks of the modern social studies teacher and look at them from the perspective of electronic functional competencies, we will find that it requires the teacher to have a degree of knowledge, skills, values and attitudes necessary to deal with modern technology and employ it in the educational process in a proper manner. The availability of these competencies for the teacher is an essential element in order to be able to perform his role effectively, and to provide modern ways to help students learn through modern technological media.

Competencies are one of the contemporary concepts in human resource management blind's the individual's ability to use personal knowledge 'skills and abilities in work situations (Quinn, 2013) defines it as a set of personal 'scientific and practical characteristics and qualification that enable the individual to achieve distinct and standard performance rates that exceed the normal rates.

This will only be done through training social studies teachers on electronic functional competencies in-service

training helps teachers develop their performance in line with successive global changes and to raise the level of their performance.

It is the most accepted postulate in educational circles that training must be designed to meet training needs. These the needs represent the basic inputs to the educational system, and the identification of these needs in light of the idea of the research came with the aim of knowing the effectiveness of a proposed program for training Social studies teachers in the light of electronic functional competencies.

### Research problem:-

The problem of the current research is summarized in the weakness of functional electronic competencies for Social studies teachers, and to overcome this problem, the research tried to answer the current research:-

**What is the effectiveness of a proposed program for training social studies teachers in the light of electronic functional competencies? The following sub-questions are derived from it**

- 1- What are the dimensions and components of electronic functional competencies that social studies teachers should have?
- 2- What is the proposed scenario for a training program to develop some electronic functional competencies for social studies teachers?
- 3- What is the effectiveness of a proposed program in developing awareness of the dimensions and components of electronic functional competencies for social studies teachers?

### Aims of the research:-

- The current search aims to develop the electronic functional skills of social studies teachers.

### Importance of the research:

The importance of the current research are:

- Provide a list of the dimensions and components of electronic functional competencies that social studies teachers must have.
- Presenting a proposed program aimed at developing some electronic functional competencies for social studies teachers.
- Providing a tool to measure the electronic functional competencies social studies teachers.

- This research can guide the development of in-service training programs for social studies teachers.

### Research delimitation:-

The current program is limited to:-

- Adoption of training program on one of the forms of self-learning, which is "educational modules "
- Determining the dimensions and components of electronic functional competencies as mentioned in previous research and studies namely :-  
Electronic functional competencies "its concept nature", digital citizenship, digital, applications, electronic achievement file.
- The application was limited to a sample of social studies teachers in Ismailia.

### Research hypotheses:-

There is a statistically significant difference at the level of significance ( $\alpha \leq 0.01$ ) between the average scores of the teachers of the research group in the pre and post measurements of the scale of awareness of dimensions and components of electronic functional competencies in favor of teacher's scores in the post measurement.

### Research Theoretical framework:-

The teaching profession, like all other professions, needs special preparation that qualifies the teacher and after him to exercise his future role with efficiency and competence.

The preparation and training of the teacher occupies an important place, especially in the light of the technological development and the information revolution.

Since the current research aims to verify the effectiveness of proposed program for training social studies teachers in the of electronic functional competencies 'therefore ,the theoretical framework will address the most important of those competencies that a social studies teacher must possess as follows :-

### First: Digital citizenship:

It is the good and proper use of modern technology in dealing with others ,through desirable behaviors and combating unwanted behaviors in digital transactions and fining the right way to guide and protect all way to guide and protect all users .(Lyons,2012,9)

The concept of digital citizenship includes how to safely participate in both digital media and social

networks; This requires knowledge of the rules and behaviors associated with the digital world and regarding privacy ,copyright laws and other practices .(Young,2014,22)

Miller& Ribble (2013, 89) defined it as: a method that can be employed to help understand the issues that should be known, in order to use technology in an optimal manner. ,Simsek & Simsek (2013,128) defined it as the individual's ability to participate in the digital society with the aim of finding the right way to guide and protect all users of different age groups by encouraging acceptable behaviors and the pleasure of unacceptable behaviors in digital transactions for a digital citizen who preserves his homeland and strives for its advancement. , Hancock & searsson (2015, 735) define it as the safe, responsible and ethical use educational technology.

### **Themes (dimensions) of digital citizenship:**

There are many dimensions associated with digital citizenship that work on preparing or shaping the digital citizen ,the most important of which are :(Couros&Hildebrandt,2015;Ribble,2012)

- 1- Digital Access (Digital Availability).
- 2- Digital commerce.
- 3- Digital communication.
- 4- Digital culture (Digital literacy).
- 5- Digital code of conduct.
- 6- Digital laws.
- 7- Digital security and digital.
- 8- Precautions.

### **Second: Digital applications:**

Digital applications are one of the most important modern technological means because of their great positives, including providing the learner with different types of knowledge sources and educational activities. Moreover, it is helping to arouse the learners 'motivation and curiosity towards learning ,and in providing an interactive environment based on fun and suspense, with the direction of the elements of sound, image and movement.

Hence, the role of the teacher has differed from what it was in the past, the development of information and communication technology has added many new burdens to today's teacher, who has become obligated to deal with modern technologies and employ them in the teaching process to help students achieve the targeted educational outcomes. therefore , the teacher's possession of digital learning skill for the learner, and in this regard ,the

Franklin study (2007) indicated that teacher training and motivation is one of the most important factors that affect the use of digital learning in education.

Hamed (2009,571) defines digital application as educational programs designed on smart phones or tablets ,such as the application of history maps thinking maps ,digital stories ,etc., that help the teacher to present the content of social studies interactively ,manage the classroom, evaluate his students and follow their level .

Hence, it was necessary to pay attention and focus to benefit from the digital developments in the educational field through interactive content based on digital applications and to benefit from the nature of the social studies course to develop and refine learner's abilities. They feel the value of studying this course, and to help them develop their life skills .Unless a teacher has many capabilities that allow him to fulfill this role to the fullest.

So that the teacher can keep pace with the modern learner with his technological capabilities and culture , then design a number of digital applications to help the teacher manage the classroom, create scientific and interactive material test students' capabilities and others and among these applications are the following : (Hamed ,2019) ,(all srour,2018) :(Zouhai,2017) :

Education teacher tool, Google slides- Atlas for iPad free- Google earth- learn world Geography – World History Maps –World War II History –Historian World –History Today Magazine- Back in Time – The Pyramids –Mindomo- Street view.

### **Electronic achievement file:-**

E-Portfolio is one of technological innovations that used as a tool for evaluating teaching, to the extent that it has become a major component of the steps used by the International Board of Teaching Standards.

There are also many international bodies that have called for the need for the teacher to possess a set of skills that help him in preparing the electronic achievement file ,including acquiring the skills of using the computer and the Internet ,such as International Society for Technology in Education and Council of National Accreditation For Teacher Education (NCATE).

Challis (Challis, 2005) defines the electronic achievement file as a selective and organized collection of information in order to achieve a number of specific purposes, while providing tangible evidence of the achievements and growth of the learner.

In addition to modifying them to suit practical use with different web environments with the possibility of retrieving the contents of electronic completion files via one of websites or presenting them using CD room/ DVDs.

**Features of the electronic achievement file:-**

Daghmash and Lulu (2014, 38) summarized the advantages of the electronic achievement file as follows:

- Ease of storage, retrieval, deletion and addition.
- Ease of publishing and distributing the entries of electronic completion files to many and varied parties on a large scale.
- The owner of the electronic achievement file develops the skills of using multiple technological media.
- Encourage students to design the electronic achievement file, especially if the teacher uses it.
- Continuity in the future, update the contents of the various file.
- The ability to renew by replacing previous files with new ones.

Technological skills needed to design an electronic portfolio:

Kojk (2012, 100) summarized the technological skills needed to design an electronic completion file as follows:

- Scan and review photos and make some adjustments.
  - Transfer digital audio and video files.
- Format the content of the achievement file and create links and buttons.
- Print on CD Recordable.
- Recording on your computer a group of photos and commenting on them by voice.
- Coordination and output of the completion file in its final form, taking into account the associated technical and aesthetic foundations.
- Good handling of office programs (word-power point).
- Video film design skill (video maker program).
- Publish the electronic achievement file on the internet.
- Mastery of presentation and presentation skills for the completion file.

**In light of the theoretical framework, the educational modules included the electronic components and functional competencies:-**

Sub components	Main dimension	
Its concept.	Functional electronic competencies	
Its nature.		
Most important components.		
<ul style="list-style-type: none"> <li>• Digital citizenship in technology.</li> <li>• Digital citizenship in the social field.</li> <li>• Digital citizenship in the ethical field.</li> </ul>	Digital citizenship	
<ul style="list-style-type: none"> <li>• Google Earth.</li> <li>• Learn world Geography.</li> <li>• World History Maps.</li> <li>• Mindoro.</li> <li>• Street View.</li> </ul>	Digital application	
<ul style="list-style-type: none"> <li>• Technological skills needed to design an electronic portfolio.</li> <li>• Stages of building an electronic completion file.</li> <li>• Electronic file design criteria.</li> <li>• Electronic file building processes.</li> </ul>	E-portfolio	

**Research Methodology:-**

In light of the nature of the research and its imposition, the current research relied on the use of:-

- Descriptive analytical method.
- Experimental method.

**Research variables:-**

- **The independent variable:** the proposed training program in the light of electronic functional competencies.
- **Dependent variable:** awareness of the dimensions and components of electronic functional competencies.

**The research sample:**

A sample of social studies teachers in Ismaili, whose number was (37) teachers to facilitate the application procedures.

**The research tools:**

**First: build** the proposed program:

The main objective of the proposed program is to develop the electronic functional competencies of social studies teachers through the proposed training program.

- Determine the content of the training material :-

The content of the training material was determined in the light of the objectives of the proposed training program, and in light of what was reached during the theoretical framework,

As well as a list of dimensions and electronic functional

Competencies that social studies teachers must have, and accordingly, the researcher has done the following:-

- Determine the main ideas of the program topics.
  - Dividing the program into several modules ,each of which includes a specific topic and values , as a presentation of these modules :
1. The first module: functional competencies.
  2. The second module: digital citizenship.
  3. The third module: digital applications.
  4. The fourth module: electronic completion file.

In building modules, the researcher has adhered to the following components:

- Outer cover: contains the module title.
- Objectives of the module that defined procedurally accurate, clear, and measurable.
- Instructions: these are the steps and instructions that the trainee must follow in order to, achieve the desired goals.
- Introduction: it gives a comprehensive idea and overview of the module in order to prepare the trainee before studying the module.
- Pretest: for revealing the level of the trainee's tribal and revealing his background knowledge on the subject.
- Module content: it is divided into frameworks or paragraphs; each paragraph contains the scientific material.
- Posttest: the posttest may be the pretest or it may be another test, and this test determines the extent to which the trainee achieves the goals before moving to study another module.
- Module sources: the module ends with a set of sources and references that the trainee must refer to and use to provide him with information related to the topic.

After completing the preparation of the modules, the researcher presented them to a group of experienced

arbitrators, and the appropriate scientific modifications and proposals were made.

The teachers have some notes on these modules that the researcher took into consideration when putting the modules in their final form.

### **Evaluating Methods in the proposed program:-**

**The formative assessment include in the proposed program the following:-**

- Questions and assignments that follow each module.
- Daily notes.
- Weekly reaction cards.

As for the final evaluation, it was done through the application of the measure of

Electronic functional competencies on the trainees.

### **Second: build the scale:**

The main objective of the scale is to measure the availability of the dimensions and components of the dimensions and components of electronic functional competencies for social studies teachers.

- Determining the dimensions of the scale: the researcher determined the dimensions of the scale in the light of the theoretical framework of the research, as well as a list of dimensions and components of electronic functional competencies that social studies teachers should have. The following dimensions of the scale have been reached (electronic functional competency) ,it's concept ,it's nature, digital citizenship, digital applications, electronic achievement file ).
- Formulation of scale Statements: (48) statements were formulated in the form of behavioral attitudes distributed over four dimensions that reflect the trainees' feeling about the previously identified dimensions, provided that each dimension includes (10) statements between positive and negative.
- The validity of scale: the scale was presented to a group of experienced arbitrators, with the aim of identifying their opinions and scientific observations about it.
- The exploratory experiment of the scale :the scale was applied to the same exploratory sample on which the program was applied , and the answers were corrected ,scores were scored and arithmetic operations were performed with the aim of: calculating the stability of the scale , the stability of the scale was calculated through the

researcher applying the scale to the exploratory sample with an interval of about a month , and the percentages of agreement between the results of the two applications were calculated using the following Cooper equation :

The percentage of agreement =

$\frac{\text{The number of times the agreement is reached} \times 100}{\text{The number of times the agreement} + \text{the number of times the disagreement}}$

The number of times the agreement +the number of times the disagreement

The percentage of agreement between the two implements is 97%, it's a high percentage and indicate that the scale has a high degree of stability.

- Calculation of the scale time ; the time required to answer all the items of the scale was calculated by calculating the average response time of the trainee to the scale items ,and it was found that the time required to answer the scale = 60 minutes.
- Scale correction : scale statements were formulated according to Likert's method ,and the response was determined in a triple gradient (always-sometimes- rarely) so that the estimates responses to the alternatives statements are in the order (3-2-1) of the positive statements ,and this order reflects in the case of negative statements ,Thus ,the maximum end of the scale is (120) degrees .

**Research results:**

The text of the imposition of the research on the existence of a statistically significant difference at the level ( $\alpha \leq 0.01$ ) between the average scores of the teachers of the research group in the tribal. Remote measurements of the scale of awareness of the dimensions and components of electronic functional competencies in favor of the teacher's scores in the dimensional measurement.

To verify the hypothesis, the mean scores of the teachers of the research group, the standard deviation of these scores, and the "t" value of the differences between the mean scores were used through the use of a t-test for two related samples. The results came as in the following table:-

Table (1) the results of the t-test for the comparison between the mean scores of the teachers of the research group in the pre and post implements of the awareness scale of the dimensions and components electronic functional competencies as a whole and in its sub-dimensions.

Effect size Squared eta	Indication level	Degree of freedom	Value Of "T"	Standard deviation	average	N	Implement	A measure of awareness of the dimensions and components of electronic functional competencies
.963	.000	36	30.78	2.661	10.56	37	pre	Electronic functional competencies (concept, nature)
				2.938	26.59		post	
.946	.000	36	25.20	3.376	10.13	37	pre	Digital citizenship
				3.541	26.10		post	
.897	.000	36	17.76	2.962	10.00	37	pre	Digital applications
				3.560	25.35		post	
.898	.000	36	17.79	3.024	10.27	37	pre	The electronic portfolio
				3.750	25.21		post	
.968	.000	36	33.42	7.127	40.97	37	pre	The overall score of the scale
				7.953	103.27		post	

It is evident from table (1) that there is statistically significant difference between the mean scores of teachers of the research group in the two implements. The pre and post implements of the scale of awareness of the dimensions and components of electronic functional competencies as a whole and its sub-dimensions in favor of the post implement degrees, as the level of statistical significance of the test value reached the total degree of the scale and the sub-dimensions it's components (0.000). Which is a value smaller than the level of significance (0.01) it's also clear that the size of the impact of the proposed training program is of a large type of the research group aware of the dimensions and components of electronic functional competencies.

Discussing and interpreting the results of the research:

The results proved the effectiveness of the proposed training program through the higher mean scores of teachers in the post implement of the measure of awareness of the dimensions and components of electronic functional competencies than their average score in the tribal implement.

This is for their grades in each of the four dimensions that represent the proposed training program. This is due to the teachers receiving a program that explains to them the importance, concept, and nature of electronic functional competencies, and the need for them to possess the values and skills of digital citizenship necessary to deal with technological innovations, take advantage of their positives and avoid their negatives. In addition to training them on some digital applications that help them to manage the classroom and create scientific and interactive material. Also, they were trained on the technological skills necessary to design the electronic achievement file, the stages of its construction and design criteria, in the form of modules and within each module many activities, and these activities were discussed with The researcher first, to help teachers learn to master. It had a great impact in helping teachers understand the

electronic job competencies in each of the four dimensions previously identified, and that the teacher did not move from one module to another until after the teacher answered the pre-test again as a post-selection and did not move to the next module only after obtaining 85% or more.

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### Prof. Atef Mohamed Saied

#### Abdalla

received the M.A. degrees, in Social studies in 1993 from Ain shams University in Egypt. In addition, he received the Ph.D degree in Social studies in 1998 from Ain shams University in Egypt. He was working as a visitor professor at UAEU University from 2001-2007. He occupied director of the Faculty Development Center at Suez Canal University in 2006, Head of Curriculum Department 2008, and Vice Dean of the Faculty of Education at Suez Canal University in 2013. Moreover, he is working as professor at UQU University from 2009 up to now His research interest includes teaching strategies of social studied, Teaching social studies by using ICT. He is a consultant of Quality and Development at the College of Education at Umm Al-Qura University at KSA.