The Influence of Educational Technology in the Artistic Education in a Medium High School of Mexicali, Baja California, Mexico

Leonardo Ávila Vargas[1], Xicoténcatl Sánchez Rocha[2], Juan Gabriel López Hernández[3], Silvia Estela Vargas Ríos[4], Jesús Andrés Garcia Ayala[5], Edén Antonio Arce Patrón[6], Glenda Anel Misquez Tapia[7], Abigail Guerrero Guzman[8], Estefany Marli Guzmán Ramirez[9]

[1]*Departamento de Ciencias Básicas, Centro de Bachillerato Tecnológico Agropecuario # 146, San Quintín, Baja California, México.*

Abstract – The educational technology tools (ETT) are very relevant in the educational yielding of students of diverse educational levels in all place of the world. In this scientific study made reference to an evaluation in a medium high school that is located in Mexicali, analyzing the creativity and imagination of students of this educational level, correlating the use of ETT with the artistic concepts. In this modern city, are installed a lot quantity of schools of this level (public and private), and the teenagers of this age have a great contact with the technology, especially in the use of cell phones, computer systems and tablets, with diverse communication programs as Facebook, WhatsApp, as the basic application programs (app) or tools utilized to generate information or communicate between cell phones, computer systems or tablets. This investigation showed an increase in the use of the creativity and imagination of the students of the school where was made the scientific study, being made in 2022.

Keywords: Educational technology, artistic actions, medium high school.

1. INTRODUCTION

One of interest aspect is the thematic about the artistic education, denominated art-education; which in the schools of our country, is the artistic program in diverse educational level, focused in this investigation in the medium high school located in this industrial city, where was made reference to the faculty to build new objects or representations or reproduce it (Coggshall et al, 2012). This is part of the art actions that supports to use the creativity and imagination to anything to want to do, being important in this relevant level of education, because is the age with the university level, when students have a lot energy to be creative, utilizing the artistic concepts. This scientific study, was made an analysis of the way to think of students of the medium high school evaluated, using the ETT, and other capacities and skills of they, to solve problems or improve any action in the daily life or in industrial, commercial, health or food activities; as the principal actions, being important debit was utilized artistic concepts, and approach the ETT that this educational institution evaluated have in these installations as computer laboratory (Reeves et al, 2011). The art science has great relevance in the development of industrial design, innovation, technology and continuous improvement in each action, where the artists are be considered as engineers, because can have the same important aspects: the creativity and imagination (Grismore, 2012). Both aspects are introduced in the thematic of educational activities, and in this scientific study was made this evaluation about the way of think of students of the school where was made this investigation.

1.1 Medium High School Institutions

This is educational level from 12 to 15 years of persons, but in sometimes people with more age that not have the opportunity to study in they age as teenager, can assist to medium high school. In this age teenagers principally, have a lot questions of the life and a lot energy that be approached to learn and apply relevant educational topics, and have great interest by use of technology with cell phones, computer systems and tables (Fletcher et al, 2012). This support to teenagers of this age to learn more about any thematic in the world, but exists a complicate situation: teenagers know more by the technology as Facebook, WhatsApp, Google Meet and Zoom as the principal methods to communication actions, or the use of internet homepages, which are a lot information of different topics (Wolf, 2010). With the great quantity of information of the communication applications and internet homepages, teenagers, essentially; they do not develop the sense of thought, and not think about the diverse critic situations in the daily life or labor, educative, sports or other kind of situation that need generates a immediate solution, being worrisome for parents, productive, school, sports or other sectors; Because not being able to give a quick solution to a situation that cannot be very difficult, and when presented to teenagers at this school level, they tend to get frustrated and generate a more critical situation than they have at the beginning, later being more difficult to solve. or sometimes there is no solution and loss of important aspects for us can be caused, such as health or another important factor (Duty et al, 2014).

1.2 Education technology tools

Is an important thematic that debit be applied in all schools of the world, because actually, exists the opportunity to generates a communication from every place at worldwide, being interesting because any person can know about the any topic, language, customs or other action of interest of each person (Hamdan et al, 2013). Also, the ETT are very relevant, because can utilize tools for each thematic of interest of each person. Teenagers spent a lot time using the informatic applications to communicate with his family, friends or classmate, to know about the topics that they want learn, but sometimes, as occurred in the medium high school evaluated, the teenagers, utilize the informatic applications to play, inappropriate actions or bother people like their classmates, giving themselves sometimes, extortion or even child pornography, essentially. For this reason, family parents, debit he supervise to his teenager's son or daughter, to prevent any critic situation how did it happen. The use of ETT was supported to teachers in the educational institution where was made this scientific study, observing an increase in the awareness of the utilization adequately of the technology tools of students of this school, and teachers were actualized his knowledge (Fullan et al, 2013).

1.3 Technology Information and Communication (TIC)

Are a group of tools, materials, equipments and strategies to supports in the use of the educational technology tools, where are the most important function is the adequate use of the communication and search of interesting information. Since its inception, the TIC has been important in the solution of conflicts, and also improvement the communication action, obtaining a great knowledge efficiently (Gray et al, 2011). Th TIC are they are considered as computer programs, applications, networks and media; that support the actions of compilation, processing, storage and also the transmission of information, which can be as voice, data (textual or numerical information), videos, images and figures of interest to each person (Cavanaugh et al, 2011). To make the actions mentioned above, is necessary electronic equipments as cell phones, computer systems and tablets that have the hardware and software adequate to elaborate each action, depending the necessity of use of each person. In this scientific study, was focused to the utilization of TIC

of students of the educational institution evaluated, where was presenting an increase in the use of TIC when teenagers of this school analyzed, but not was approached this technologic resource to make benevolent actions or to obtain some group or personal benefit, but were used mainly to annoy their classmates. The students of this evaluated school used Facebook and WhatsApp to communicate irrelevant information for their educational use (Clifford et al, 2014). This worried teachers, school authorities, societies that develop acts of support for social welfare and especially parents, who did not know what to do when their children got out of control and elaborated undue actions, without values and out of the law.

1.4 Artistic education using TIC

School art is very useful in generating creativity and imagination, which, when used optimally, generates innovative ideas, being relevant to school processes, such as science, technology and creativity contests, as well as participation. of the students of any medium high school in the world (Fullan et al, 2013). This has greatly supported the development of prototypes, laws, standards or innovative actions; that cause a positive effect on our society, care for ecosystems, support for health, food, gender equality and situations that grant a benefit in social well-being. School art in our country and in any region of the world has the great challenge of supporting school themes, from the initial stage, to the university, where benefits are generated for people who consider it relevant in their actions to develop their activities. daily. In addition, it supports from the initial stage to adulthood, to control emotions that can be of great support in the efficient integral development of people in this current complex society. In this scientific study was made an analysis of the form of think of students of the educational institution evaluated, about the use of TIC in their classroom actions or homework that made in his homes, observing a delicate situation (Duty et al, 2014). This was, because teenagers or this school where was made the investigation, was using inadequate the TIC tools, generating a negative effect in his classmate, teachers and directive people; because some students were originating complicated situations that cause at least discomfort in some persons of this school evaluated, being a negative action. Some students were suspended and others fired from this school (Wenger et al, 2011).

1.5 Mathematical evaluation

The mathematical evaluation is fundamental in the knowledge of the functionality of devices, systems, equipment and machinery; of any type of action, evaluating their operational performance as well as people, in such a way that it is possible to know when it is necessary to generate continuous improvement in any process or activity (Dawson, 2012). This has been relevant since the actions of both devices, systems, equipment and machinery of any activity, as well as people, began to be evaluated in order to improve each situation of interest or provide solutions to critical situations in life. daily or in labor, educational or other actions of interest. Mathematical analyzes are important, because they show the results that can be expected in some type of investigation or evaluation of a situation that is to be improved or solved (Cavanaugh et al, 2011). The information obtained with the mathematical analysis can be obtained through surveys, experimental processes and can be quantitative or qualitative, observing how a desired event to be analyzed behaves or to obtain an immediate solution. In this research, surveys were used to obtain numerical information and to be evaluated with the Excel program, as one of the most widely used computer programs in the analysis of numerical data, observing interesting results that are shown in the following sections.

1.6 Agricultural operations

One of the important issues in any region of the world is the analysis of agricultural activities, which are relevant because, based on their actions, they can have a positive (economic gains) or negative (economic losses) effect. In addition, a better productive performance can be originated, they can be by the application of optimal methods or strategies, which help to obtain better benefits for the people who are dedicated to agricultural activities in any region of the world (McConnell et al, 2013). In this scientific study, technological education tools were evaluated together with ICT materials and tools, which generated a positive effect on the learning of the students of the evaluated school and with an efficient school use, with increases in the generation of knowledge in the students (Evans, 2012).

2. METHODOLOGY

This investigation was relevant in the correlation analysis of the use of ETT and ICT in the school where the scientific study was carried out, being interesting to improve the qualities, aptitudes, behavior, abilities and relationship of the students evaluated. The process of this investigation consisted of two stages, which are mentioned below:

a) Analysis of the use of ETT and ICT by teachers, as well as the use of strategies for the motivation of the teaching-learning process of the students evaluated and the way of thinking regarding the use of ETT and ICT with the aspect of art.

b) Evaluation of the school yielding of the students evaluated, with the objective of improving their integral development.

3. RESULTS

This scientific study was made to analyze the relation between the use of ETT and the scholar yielding of students of the schools evaluated, where was observing an improvement in the approach of acquisition of knowledges of students, improvement the creativity and imagination of students, when were utilized adequately the ETT and TIC correctly. The results are expressed in the next sections.

3.1 Analysis of utilization of ETT and ICT

The analysis elaborated in this section of this scientific study, was relevant, indicating that the use of ETT and TIC correctly, improved the way of the teaching-learning process, where was necessary use specialized strategies to raise awareness among students at this school level to use ETT and ICT tools appropriately and thereby improve the acquisition of knowledge, skills, abilities, attitudes and behavior; as well as their creativity and imagination of the students and apply their abilities to solve complicated situations in each activity to participate and be able to improve study cases. Table 1 shows the relation of the use of ETT and TIC and the improvement of capacities of teachers and students, being a comparative evaluation between before and after application adequately the ETT and TIC, and relating the tools with the artistic education and improvement of skills of students in the school evaluated.

Table -1: Comparative evaluation of the use ETT and TIC in a medium high school (2022)

| Factors Month	ROYTETT, %	ROYSETT, %	ROYTTIC, %	ROYSTIC, %
January	60	69	58	62
February	62	73	62	64
March	65	76	65	66
April	68	77	67	69
May	70	80	71	74
June	74	82	72	76
July	77	85	74	77
August	80	88	76	79
September	83	89	79	82
October	85	92	83	86
November	87	93	85	88
December	88	93	86	92

Relation of Operative Yielding of Teachers and the Use of ETT (ROYTETT).
Relation of Operative Yielding of Students and the Use of ETT and TIC (ROYSETT).
Relation of Operative Yielding of Teachers and the Use of TIC (ROYTTIC).
Relation of Operative Yielding of Students and the Use of TIC (ROYSTIC).

Table 1 shows relation of the use of ETT and TIC, where was observed that conforms advanced this investigation, the adequate use and scholar achievement of students fomented by teachers by their availably, shows an increase in the improvement of skills of teachers and with this the skills of students to solve complicated situations, correlated the art-education thematic and make improvements of any activity in the life.
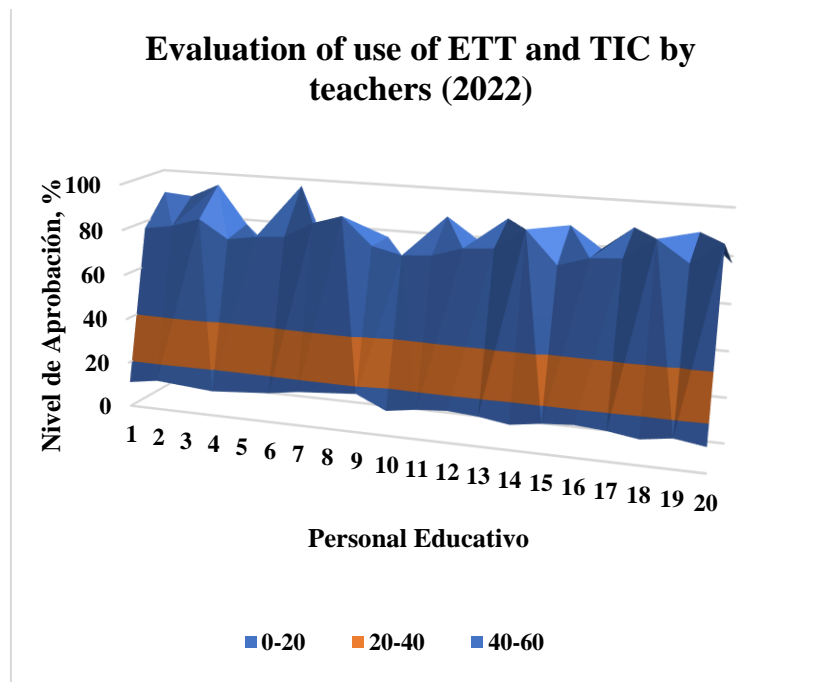
Fig -1: Analysis of the use of ETT and TIC elaborated by teachers (2022).

Figure 1 shows the evaluation obtained of the surveys elaborated in the high medium school, where was made this investigation at the begin of this scientific study and the final of this, illustrating from 0% to 20% with the light blue color, the low level of school achievement, indicating that teachers not was interest in use the ETT and TIC, being this part of the analysis at the begin of this investigation. Then, was appeared the orange color, with 21% to 40%, representing that in this part of this scientific study was presented a bit increase of the awareness of teachers to use adequately the ETT and TIC, and then from 41% to 60%, 61% to 80% and 81% to 100%; with the same light blue color, as 0% to20%; indicates that teachers recognized that was necessary the awareness of the use of ETT and TIC adequately. This means that the use of ETT and TIC correctly, increase the scholar achievement of teachers and with this of the students, being relevant in the formation of human resource as students in this school evaluated, to improve the skills of students of this school.

3.2 Evaluation of awareness of scholar population related with the scholar achievement

Once the analysis of the appropriate use of the ETT and ICT was prepared, the evaluation of the awareness of scholar population and related with the school achievement of the students of the evaluated school was carried out, which is shown in Table 2, from the beginning to the final of the scientific study. This evaluation is related with the art-education to improve the creativity and imagination of teachers and students.

Table -1: Analysis of scholar achievement of teachers and students of the medium high school (2022)

Factors Month	SATETT, %	SASETT, %	SATTIC, %	SATTIC, %
January	57	59	56	58
February	60	62	60	63

March	64	65	63	66
April	67	67	69	68
May	68	69	74	69
June	73	72	77	70
July	76	75	81	73
August	79	77	83	75
September	80	80	84	77
October	83	84	86	80
November	85	87	88	83
December	88	89	90	85

Scholar Achievement of Teachers using ETT (SATETT).
Scholar Achievement of Teacher using ETT (SASETT).
Scholar Achievement of Teachers using TIC (SATTIC).
Scholar Achievement of Teacher using TIC (SASTIC).

Table 2 shows the analysis of the awareness of teachers and students, illustrating that conforms was made this scientific study, was generated an increase in the awareness of teachers and students, being relevant in the scholar achievement of teachers and students, being important in the improvement of skills of both persons of this school evaluated.

4. CONCLUSIONS

This investigation shows important information in the us of ETT and TIC from teachers and students of the educational school, where was made this scientific study, being relevant in the scholar achievement of teachers and students, and promoting the development and improvement of the skills of both type of persons of this school evaluated. This is of interest to the educational authorities of this modern city, regional, state and national educational authorities, and of industrial and commercial industries and government dependences, which are constantly looking schools and students with specialized skills to the labor activities.

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