

The Use of IPod in teaching as a factor that raising Learning Motivation among Early School Pupils of the Arab Sector in the State of Israel

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Abstract: This work paper examines the influence of the use of tablet computers (IPods) as part of the learning process in the Israeli education system. In order to examine the issue from the pupils' point of view, the pupils' motivation and achievement components were examined through using a questionnaire relating to the integration of tablet computers as part of the E-Learning in the educational institutions. As part of the study, questionnaires were distributed among 120 pupils, in order to examine the actual influence of the examined data on the importance of tablet computers in online teaching. In order to examine the issue, the questionnaire related to both the quantitative and the qualitative aspects. The findings of the study present a situation report that show that the tablet computers (IPods), greatly assist to the pupils' motivation and achievement in their perception, and this also derives from the great advantage of the E-Learning regarding their motivation and achievements.

Keywords: Online teaching, Pupils' Achievements, Technology and Tablet Computers (IPods) in Teaching, learning Motivation, Pupils' Achievements.

I. Introduction

We live in a digital world today, surrounded and immersed in technology. The pace of changes and innovations in technology is growing and leading to massive changes in all aspects of our lives, including on the road where we teach and study. As for the link between use of computers in schools, it can be said that the limited use of computers is preferable to the lack of use at all. However, when the use of computers increased, the results of the study showed that pupils reported a positive learning experience, and essential and important for them.

As part of the study, questionnaires were distributed among 120 pupils, in order to examine the actual influence of the examined data on the importance of tablet computers in online teaching. In order to examine the issue, the questionnaire related to both the quantitative and the qualitative aspects.

This study confirms the findings of previous researches that found that online teaching is highly efficient today, as it more properly responds to the changing needs of the pupils in the renewable world. Technology is an inextricable pillar of the younger generation today, as well as academic institutions have already made use of tablet computers as part of online teaching. The use of tablet computers in elementary education is still in its infancy in the State of Israel, and it would be appropriate that this be significantly expanded. The traditional frontal education no longer provides a proper response to the needs of the pupils and does not provide to the pupil any proper cognitive stimulation for the child's development.

II. Literary Review

Online teaching is a teaching and learning environment in which the learning process includes technological equipment as well as the use of the Internet network. The pupils in the online teaching environment learn through the computer and the Internet, and the study materials are accessible to the pupils from anywhere, from home and away, whenever and wherever they are [1]. Most of the learning is done through and with the assistance of computers. I.e., the online teaching can be done in many different ways, much like regular teaching. This form of learning is widely used around the world, and there is much evidence in the education system that it helps to the pupils to improve their achievements. There are various factors that influence pupils' achievements, and this also implies the importance of factors such as motivation and motivating of it. This review will present the concepts of motivation of pupils and achievements of pupils, with reference to the use of tablet computers as part of the online teaching mechanism [3].

2.1 Motivation among Pupils

The word motivation refers to a person's desire to invest resources such as time and investment in a particular action despite its complexity. Psychologists and researchers have explored the field during the

development of psychology and for this purpose various theories have been developed in order to explain the motives of a person to achieve a particular goal and fulfilling of his or her desires in different fields. There are some researchers who refer to this as a balance of energies that motivate a person to a certain behavior when this balance is violated [2]. There are some theorists who claim that motivation is actually behavior which is motivated by reinforcements. It is agreed that there are three characteristics of motivation: direction, intensity and quality. The element of direction refers to the person's choice to act in any way and his or her persistence regarding this. The element of intensity refers to the person's investment in the way which he or she chose and the extent to which he or she adheres to the purpose. The last element in the definition - quality, refers to the way in which person's activity in order to achieve the purpose [15].

Motivation is examined with relation to the social socialization process, with integration of elements such as individuality and pupil culture. The pupil's motivation process is a process that involves internal and external forces that influence the learning process and shape the individual's behavior regarding intensity, continuity and form in which he or she performs the work. Intrinsic motivation is based on personal pleasure or interest, while extrinsic motivation is governed by reinforcement of dependence [5].

Different approaches to motivation focus on cognitive behaviors, non-cognitive aspects (beliefs, perceptions and etc.) or both. Characteristics of activity arising from intrinsic motivation are divided into different fields: behavioral characteristics, which include investment of effort and time and selection of difficult tasks and persistence in the absence of reward or external pressure. Cognitive characteristics include high concentration of attention and great involvement in the task and little concentration of attention and thought on performance consequences for self-esteem or the social status of the pupil [11].

2.2 Pupils' Achievements

The school has become a professional organization in recent years. As such, there a lot of opinions that consider it as an organization that acts in the business market and therefore it adapt itself to the environment by investing efforts to show achievements to public, impressive learning outcomes and a trend of innovation and uniqueness. As a professional organization, it formulates a clear policy that commits its employees. The school expects its employees to work for the success of the organization, and ensures this by motivating employees to identify with its goals and their captivation towards their realization [16].

The commitment of teachers to the school as an organization (organizational commitment), to the teaching profession, to their role and to the pupils is essential to the success of the school and to the optimal educational climate creates a high sense of responsibility among them. Worldwide education systems distribute such and other programs for the advancement of pupils in the system. In general, educational policy is based on the imparting of knowledge and skills in order to expand the circle of studies at all levels of education, to reduce drop-out rates and to increase the level of education of the entire population in the system on its various levels [6]. Weak pupils who develop non-routine thinking will be successful at solving problems. The teaching method affects significantly and controlled onpupils' achievements. In general, teachers tend to give challenging assignments, which require a high cognitive level from high-achieving pupils[16].

On the other hand, for those pupils who find it difficult, teachers will usually be less challenging. The high-achieving pupils are exposed to more frontal hours in which the teacher teaches in the classroom, while the teachers in the weaker grades are primarily concerned with pupils' behavioral and discipline disorders and therefore the pupils do not receive multiple teaching hours [12].

2.3 The Connection between Motivation and Pupils' Achievements

It is possible to see that there is a connection between motivation for learning and achievements of the pupils. A person with high self-esteem will set for himself or for herself challenging for performance purposes. Also, this perception influences the person in problem solving, and how his or her decisions are made in this field and even his / her beliefs on himself or herself, he or she reach high achievements[17]. At the same time, when the self-esteem is low, the pupil is concentrated on his or her own failures. When this pupil concentrates on these negative things, he or she comes under stress, is characterized by anxiety, frustration and even despair from the studies. A pupil who does not acquire the basics cannot succeed in the more complex fields that follow it. It is evident that pupils who believe that their intelligence is changeable and can be developed as a result of their learning will invest significantly in their studies than those who do not believe that intelligence is changeable [15]. Pupils who believe that intelligence cannot be influenced and developed, perceive themselves as very poorly capable, they will not demonstrate knowledge publicly and will not invest efforts in order to develop their ability in this field. In fact, most of them will stop learning and will not strive to achieve good grades or achievements because they do not believe in themselves [10].

Motivation is an element that is related to the pupil's mental well-being at school and his or her educational achievements. I.e., as a child's mental well-being in relation to learning is high, so he or she will succeed to reach higher achievements. It can be predicted that those pupils who have low mental well-being and low motivation will have learning difficulties. The educational achievements and the level of motivation for learning are necessarily related to the pupil's emotional and social problems at school [6]. As the child will experience more and more successful experiences, so he or she will attribute them to internal factors and will understand that he or she has control over them. In fact, the pupil's focus of control will change from the extrinsic to intrinsic. The role of the educational system in this child is to create experiences of success that will cause to him or to her to believe in him or in her and thereby significantly improve his or her achievements and he or she will feel successful [17].

2.4 The Use of Technology and Tablet Computers (iPods) in Teaching

Online teaching has many advantages for learning and teaching, among them structures such as a reduction in the budget that is required for study, the possibility to adjust the pace of learning more individually for each pupil, the expansion of databases and lesson plans, and the possibility for pupils to study more deeply, beyond the subjects which are taught by the teacher [3]. In addition, in a computerized learning and teaching environment, the pupils can use elements such as integration of music, films or videos and presentations, animation and graphs into study materials, and greater use of the visual aspect of the teaching. Pupils can also expand their level of mutual assistance through tools such as topics such as blogs, chats, study groups, or various electronic tools used in the online learning environment [1].

The online teaching includes a number of components that enhance the learning experience; For example, the online environment offers courses and online learning materials that the use of them enables to the pupils an independent research, share, and obtaining of information from many different sources and the ability to advance at an individual learning pace as part of the learner's pedagogical promotion [9]. Another benefit of online learning is that they enable different levels and different learning rates, so it is possible to personally adjust the online learning when each pupil chooses the appropriate for him or her courses or study materials. The traditional-frontal approach is lecture-based. The teacher is the main speaker. The teacher guides the learning process and transfers for all pupils in the classroom and the content and the skills that they need to learn [8].

The transition to an online teaching environment has led to a comprehensive perceptual change in science and technology studies; and the changes that this transition causes are not limited to the field of motivation alone but cause a perceptual change in the nature of learning. Many pupils have noted that the use of technology including tablet computers in a online learning and teaching environment significantly improves the achievements of gifted and talented pupils, when learning in this way enables creativity and through it to cause topupils to do themselves extensive researches about the studied material and the teacher serves as a mediator between them and the work environment [14].

Contrary to the traditional-frontal approach according to which the pupil absorbs and acquires from an external source of knowledge, in computerized learning the pupil is at the center and takes an active role in collecting, organizing, processing of information and its communicating with previous knowledge, meaning that the pupil is the someone who builds the knowledge. Active learning refers to the situation in which pupils are active participants in the learning process. They use decision-making skills and exercise many cognitive abilities. Active learning also uses diverse strategies such as project execution, problem solving and research [2]. It is also evident that group work among pupils is very efficient for the active teaching process and enhances critical thinking skills. The teacher who guides such learning has had the opportunity to support, to pay attention and to help for groups and for individual pupils. All pupils have equal opportunities to participate, to express a position, learn, to be aware of what is going on around them and to express their abilities. Usage of technology in teaching provides for the pupils an opportunity for active learning in the classroom and to receive critique from the computerized environment immediately [7].

2.5 The Influence of Tablet Computers on the Motivation and on Education

Children during the study period experience stressful situations when they need to meet the requirements and standards that are categorized according to achievements. As a result, it was found that school pupils may experience anxiety due to that they do not understand the studied material. The emotional situation which is caused by stress which is associated with learning creates the pupil's learning experience and also affects his or her abilities and beliefs in the chances of his or her success. However, it should be noted that the transition to online teaching and the use of computer tools in each curriculum significantly increases pupils' motivation to learn and to understand the studied material. Online teaching offers tools that facilitate learning

and thus contributes to the increase of motivation for learning [4]. For example, online teaching enables the use of writing-supportive tools such as spell checking, copying and pasting, search and exchange, highlighting and links. Additional tools are those that enable contact for consulting and collaborative work such as e-mail, forums, blogs and chats, and tools that help organize the text (emphasizing and highlighting) and incorporating of images and illustrations [13]. An online learning environment has a positive influence on the learning experience because it integrates interactive contents, animations and films that help to easily understand the studied material and contribute to calming of pupil and greater involvement in the learning process. This suggests that the use of tablet computers (iPods) during the learning process may have a positive influence on the motivation and the achievements of the pupils, as will be examined in the following chapters [4].

III. The Research Objectives

In recent years, the Israeli education system assimilates innovative digital technologies (such as iPods) to improve the learning process. The iPod device is a very easy, mobile and relatively inexpensive technology. For the younger generation it is very attractive and with touch screen which is accessible and convenient to operate. In addition, it enable to the pupil to go outside (not in the physical sense) beyond the boundaries of the classroom, thereby expanding knowledge and increasing the motivation for the pupil and ultimately affecting his or her achievements. From this, the study aims to examine the real influence of the use of tablet computers on pupils' achievement and motivation, and accordingly to improve their achievements in the Israeli education system. The study aimed to investigate the influence of the integration of iPods on the motivation for learning and achievements of elementary school pupils.

IV. The Research Method

2.6 The Research Population

The sample which was selected for this study was characterized by several different parameters:

- The sample size: In the study there were selected 120 pupils from elementary school.
- The selected pupils were from four different 6th grades.
- In the sample there participated children of both genders.
- The pupils who participated in the sample were 11-12 years old (the beginning of the adolescence age).
- The pupils fulfilled questionnaires completely anonymously.
- The pupils used tablet computers as part of their regular study routine.
- The pupils study in the school which belongs to the Arab sector.
- More female pupils than male pupils in total.

The selection of these pupils made it possible to examine the influence of using a tablet computer at a relatively young age in the education system, prior to moving to a more difficult level of education in middle school and high school.

2.7 The Research Framework

In recent years, it has become apparent that the importance of traditional formal teaching has been diminished due to the technological changes that affect the society in many levels. Today, children are exposed to the various technological means from an early age, and so their cognitive thinking also adapts to the new level of performance. The technological world is changing and its characteristics are being updated, but the education system remains almost unchanged. This raises wonder about how the system's ability for all its factors can encourage pupils to improve their grades and achievement within the school framework, including through nurturing their motivation. Therefore, tablet computers may be an efficient and appropriate method as part of a computerized education system, and it is worth examining the issue and its consequences in practice by examining the efficiency of this teaching system among pupils in a sixth grades in the elementary school.

2.8 The Research Tools

The research tool that was selected for this study is the questionnaire. The questionnaire is the most appropriate tool, for a number of key reasons: Firstly, the questionnaire enables to obtain much information from the pupils with maintaining their anonymity. It is easy to distribute it among many individuals in order to reach the quota which is determined in order to reflect a representative sample. It is also possible to distribute the questionnaire into several parts, thus to obtain information based on different methods.

In this study, the questionnaire collected information for both quantitative and qualitative analysis. Within the quantitative framework, the questionnaire was divided into terms, which the pupils had to rank on

according defined scale of four different values. In the second step, the pupils were also asked to rank various aspects regarding learning with tablet computers, but at this step they were also required to explain in their own words the choice they made regarding ranking these aspects. Finally, the questionnaire enabled the collection of data which are critical for the research question, with thoroughly examining the issue so that the research question could be answered most appropriately.

2.9 The Research Procedure

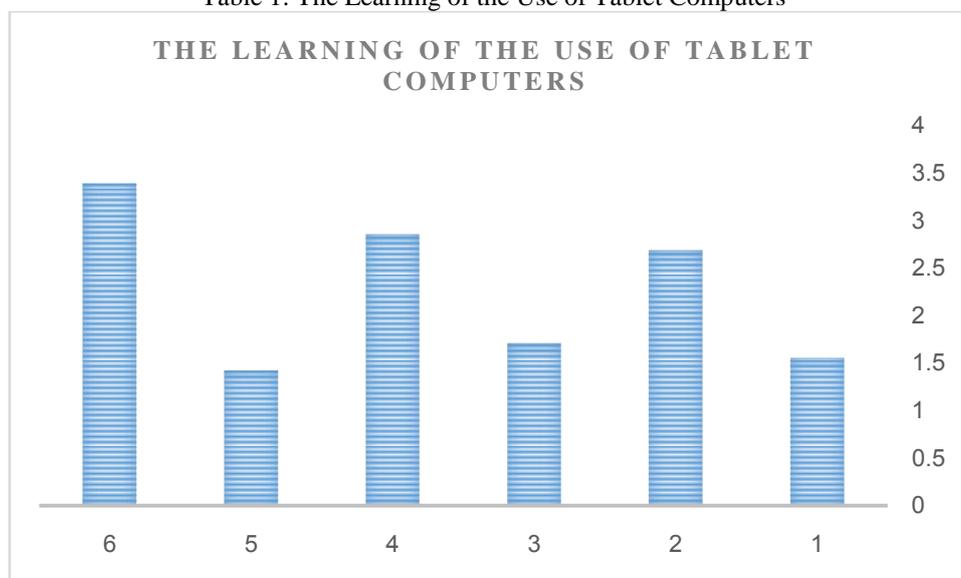
The research procedure in this work paper relates to both quantitative and qualitative analysis, which was performed on the basis of the data which were collected through the questionnaire. The questionnaire was distributed among pupils who were randomly selected for research needs from four different sixth grades. The pupils fulfilled the questionnaires with complete anonymity and then the data were analyzed in two ways. At the beginning the data were analyzed quantitatively based on the existing data which were obtained from the questionnaires. The most prominent data were analyzed with regard to different statements were analyzed according to the division for categories. In the qualitative aspect, 20 participants were selected randomly and their choices were assessed with reference to the rating that they made on the different themes. The chapter of findings presents the statistical analyzes as well as the main findings that emerge from the analysis of the main themes of the questionnaires. Finally, the findings were brought to the chapter of summary in order to conclude the necessary conclusions with respect to the research issue.

V. Analysis of Findings

This chapter will present the main findings that emerge from the data in relation to the research question. Firstly the quantitative data will be presented and then the qualitative data will be presented. The quantitative data were examined with reference to the total of the 120 sampled participants sampled, while the qualitative data were examined with reference to 20 qualitatively selected sampled participants.

With respect to the first category, i.e., the learning of the use of tablet computers can be concluded that most of the pupils responded with an estimate the answer of 1: completely agree regarding the questions regarding the quick and convenient operation of tablet computers in the learning process. It can be seen in Table 1 that the only questions that crossed the level of 3 are precisely the statements that argue that the operation and the use of tablet computers is difficult and cumbersome, this is something that the pupils disagree with it. From this, it can be learned that most of the pupils experience a comfortable learning experience for use of the tablet computers.

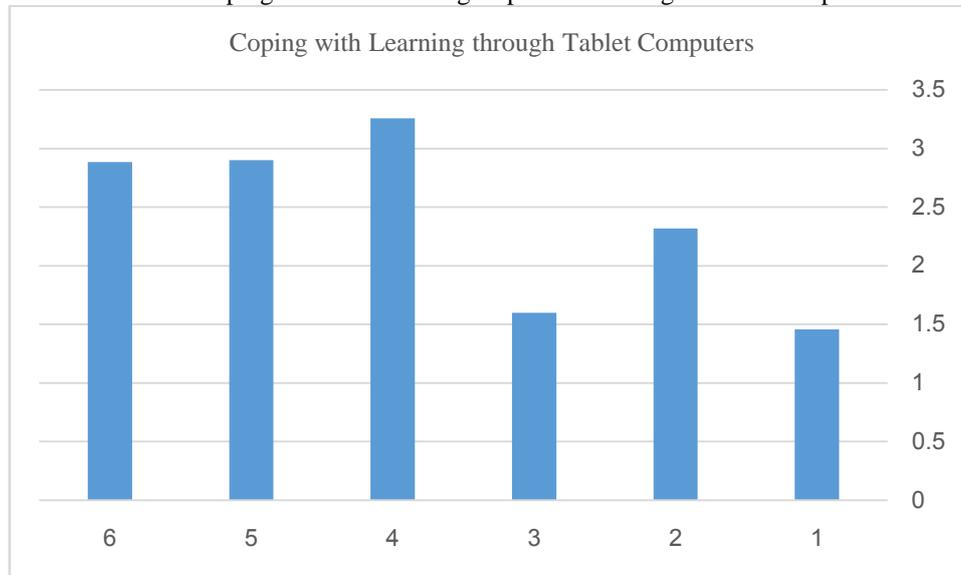
Table 1: The Learning of the Use of Tablet Computers



The second category relates to coping with the learning experience through tablet computers. It can be seen in Table 2 that questions 2, 4-6 refer to characteristics such as difficulty, despair, and frustration in coping

and learning with tablet computers. The average ranking of these questions is very high and close to 4, something which indicates a very high degree of disagreement of the pupils with this statement.

Table 2: Coping with the Learning Experience through Tablet Computers



The third category relates to the improvement of the achievements through the use of tablet computers for learning purposes. It is also possible to identify into this category a similar trend such those that were found in the previous categories, as pupils showed a very high degree of sympathy and agreement with the ideas that actually benefited from the use of tablet computers, as opposed to the high degree of disagreement with the statements that argued that there are complication and difficulty in using tablet computers in the learning process.

Table 3: The Influence of the Use of Tablet Computers on the Improvement of the Achievements

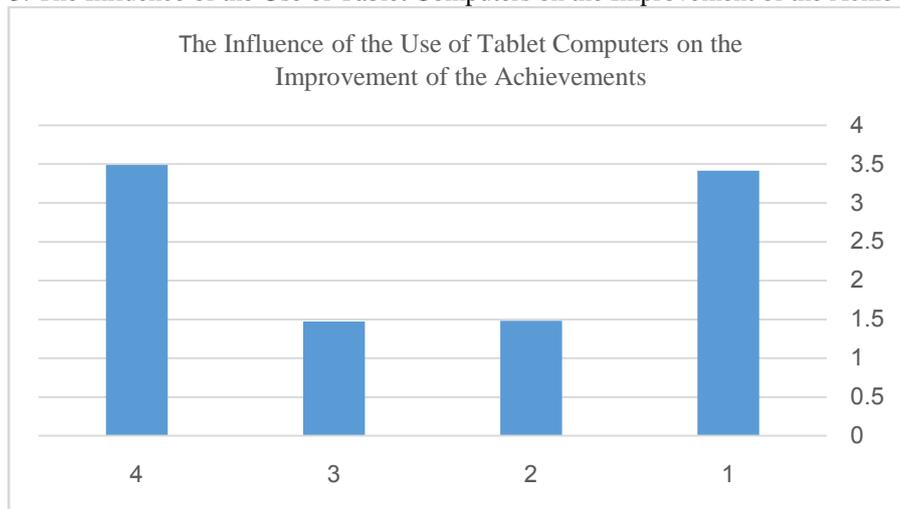
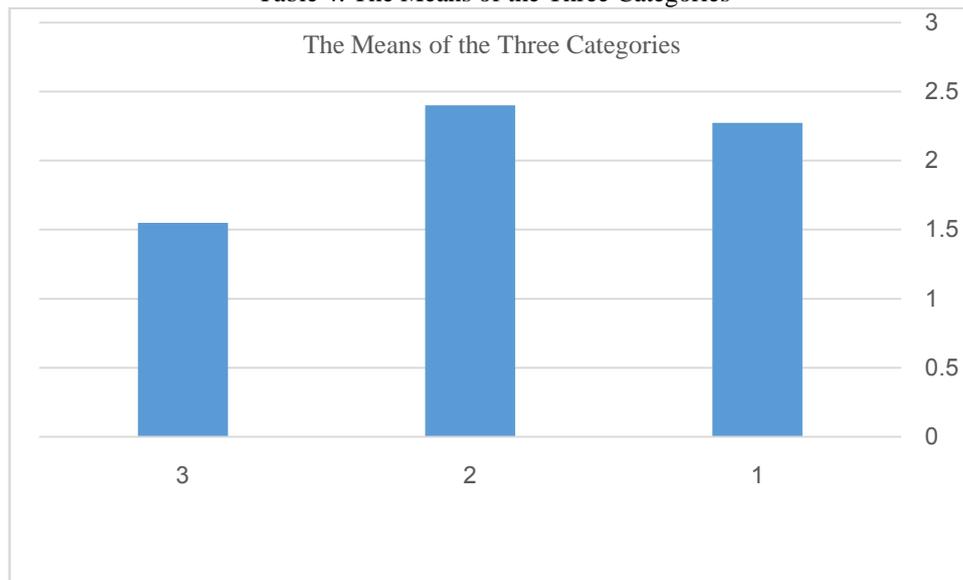


Table 4: The Means of the Three Categories



The table shows that in the three categories which were analyzed above, it seems that most of the pupils responded on average on the answer of 2, i.e., “Agree”. This means that most of the pupils agreed that the use of tablet computers helps them in learning, as well as the use of it is convenient and efficient. The qualitative analysis of the twenty randomly selected participants shows a similar picture as well. Most of the pupils use a tablet computer frequently, something which indicates a great advantage and sympathy of the pupils towards the use of computerized technology for learning purposes. With regard to method of learning, the use of it increases, most of the pupils think that this is a basic technology and they can operate the tablet computers relatively easily.

"It is easy, fun to use and unconventional"

"Because it is easy to use and it is not part of the routine as writing in a notebook and enjoyable"

"The use of IPod is not as difficult as writing and it clarifies us how to use everything that I engage with it"

Even during the learning experience, the IPod seems to provide for the pupils an opportunity to have a more efficient and enjoyable learning experience as it enables to the pupils to practice the studied material more effectively and more efficiently.

"I love technology and it helps me in many things during my life"

"It teaches us new things and it is not boring and helps us"

A unique thing that can be learned from the qualitative findings is the place of technology for the pupils. The technology is a very basic element in the lives of the young pupils today, so also the learning through technological means is also a process that enables to improve learning procedures.

"It is a global tool; most of the pupils use it"

"Because most of the pupils use it for information finding and for learning and are comfortable and fun to use"

"While I use the IPod for learning, I get into games and other sites"

The learning process through using tablet computers also provides for the pupils a patience as it allows them to both learn and enjoy during the process from games and other existing functions that help pupils to leverage their school activities to high levels of pleasure in relation to the past. In summary, it can be stated unequivocally that tablet computers contribute to increasing the motivation and the achievements of the pupils as part of the online teaching in the elementary schools.

VI. Summary

The availability of online teaching causes a significant reduction in the budget which is required for the needs of studies, and enables accessibility to information resources faster and more convenient than until a few years ago. As schools offer and expand their databases that are on the Web, they carry out a process that significantly optimizes pupils' learning abilities. This study confirms the findings of previous researches that

found that online teaching is highly efficient today, as it more properly responds to the changing needs of the pupils in the renewable world. Technology is an inextricable pillar of the younger generation today, as well as academic institutions have already made use of tablet computers as part of online teaching. The use of tablet computers in elementary education is still in its infancy in the State of Israel, and it would be appropriate that this be significantly expanded. The traditional frontal education no longer provides a proper response to the needs of the pupils and does not provide to the pupil any proper cognitive stimulation for the child's development.

At the same time, it is also important to remember that this sample cannot be a representative sample for the entire relevant population of the State of Israel, as it is too small sample. The use and technological proficiency of children in nowadays is also stems from the environment that exists in their home. There are homes where there is little possibility of enabling an advanced technological environment, so it is expected that these children will also have greater difficulty in acclimating in the online learning. It would be appropriate for further studies will examine the issue more extensively and through a broader sample of schools from different sectors.

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