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# The Impact of iPad Utilization on Middle and High School Students in Jerusalem

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### **Abstract:**

This study was ignited during the "technological boom" when devices began serving as substitutes for textbooks and teaching methods. That said, the study aimed to assess the pros and cons for this technological shift, focusing on iPads, identify the factors that affect this assessment, and underline students' attainments which reflect on teachers' efficiency in teaching. To adroitly carry out this aim, the study designed a questionnaire which constitutes of two main fields: the first field containing the demographic variables of the chosen sample (gender, age, educational level, the classes and subjects taught by teachers and the percentage of iPad usage in an average class or lecture). The second field consists of two major parts for evaluating the iPad's advantages and disadvantages. The study evaluated this by assessing a sample of teachers (60) from schools using iPads, and consequently analyzing the data by computing several tests such as the SPSS program, Chronbach's Alpha, an independent t-test, and a One-Way Anova.

The results showed that the advantages of iPads are noticeable in that they are easier to carry as opposed to heavier textbooks, save paper, create simpler and more channels of communication with teachers (emails), enhance the students' creativity, ease the process of exchanging information, and help teachers to track the students' work during and



outside of class. On the other hand, the disadvantages of the iPad are student distraction during class and lectures, copying assignments and exchanging answers, weakening the students' eye visions, technological limitations during power outages, and the drifting from handwritten notes and assignments which potentially affect penmanship and other writing skills. It is also worth noting that both advantages and disadvantages can vary according to age, educational degree, classes, and subjects. That said, the recommendations for this technological integration into academia is as follows: training both teachers and students on the utilization of iPads, focusing more on history and language classes for the iPad, and using educational games to help satisfy the students' urges to play entertainment games. All in all, this study aims to shed light on the effectiveness of iPads in academia, ultimately helping perfect this technological shift in academia.

Keywords: iPads, advantages disadvantages, teaching, Jerusalem



## ملخص باللغة العربية

تم عمل الدراسة خلال فترة "الطفرة التكنولوجية"، حيث بدأت الأجهزة تعمل كبديل للكتب المدرسية، وقد هدفت الدراسة إلى تقييم إيجابيات وسلبيات ذلك التحول التكنولوجي، والتركيز على استخدام أجهزة iPad ، مع تحديد العوامل المؤثرة في التقييم؛ والتأكيد على إنجازات الطلاب التي تعكس كفاءة المعلمين في التدريس.

صممت الدراسة استبانة مكونة من مجالين رئيسين: الأول يحوي المتغيرات الديمغرافية للعينة المختارة (الجنس، العمر، المستوى التعليمي، الصفوف، والمواد التي يعلمها، نسبة التعلم عن طري iPad)، بينما كان الجزء الثاني حول تقييم مزايا وعيوب الiPad. استخدمت الدراسة عينة من (٦٠) معلم ومعلمة، وتم تحليل البيانات باستخدام الرزم الإحصائية SPSS.

أظهرت النتائج مزايا الiPad الملحوظة، من حيث سهولة حملها مقارنة بكميات الكتب المدرسية الثقيلة، وتوفير للورق، وإنشاء قنوات اتصال أكثر سهولة وبساطة بين الطلاب والمعلمين، وتعزيز ابداع الطلاب، وتسهيل تبادل المعلومات داخل وخارج الصفوف المدرسية.

بينما كانت العيوب انه قد يكون مصدر للهو، ونسخ للمهام دون حل، وإضعاف نظر الطلاب، إضافة للقيود التكنولوجية مثل انقطاع التيار الكهربائي أو شبكة الانترنت، كذلك الانجراف للمهام المنسوخة من الانترنت، وتراجع في خطوط الطلبة لقلة الكتابة اليدوية، علماً بأن المزايا والعيوب تتباين حسب الفئة العمرية، والصف والموضوع الدراسي.

وبناء على نتائج الدراسة تم التوصل إلى عدد من التوصيات أهمها:

- تدريب المعلمين والطلاب أكثر على استخدام ال iPad
- التركيز على دروس التاريخ واللغة خلال التعلم من خلال جهاز الiPad
- استخدام الألعاب التعليمية للمساعدة في تلبية رغبات الطلاب وحاجتهم للعب.
  - التنويع في كيفية وطبيعة المواد المستخدمة للتدريس عن طريق الiPad



#### 1. Introduction

During the late 1900s, there has been a noticeable shift regarding the education system worldwide. Up until the 20th century, education was regarded as traditional. Teachers were the center of the teaching process while students did not take part in significant roles. In a nutshell, the teachers provided the information and the students were required to digest and study the latter. Teachers were regarded as the major role in the education process. Additionally, resources were only accessible in students' textbooks or at the libraries, limiting their access to information absent in the latter and forcing them to depend on their teachers.

Gradually, the traditional teaching methods transformed to more interactive ones. With the development of technology such as desktops, laptops, and portable tablets such as iPads, innovative and interactive teaching methods were introduced to schools worldwide, evidently signifying that technologies penetrated teaching systems and curricula. The education system's progress didn't halt, rather technology was introduced to the classrooms with the intention to improve the education's interactivity and accessibility, specifically by adapting constructivism and connectivity theories.

Connectivism Theory integrated in the teaching systems. Moderately, schools worldwide believed that utilizing the technology era would create an excellent platform for the connectivism theory to offer students more active responsibilities and roles in classrooms, whereas teachers were regarded as facilitators: more passive roles. With this change, education systems converted into more hands-on opportunities with interactive teaching methods. During the early stages of the technology integration, schools began by providing limited amounts of computers in classrooms or libraries, a projector, and in a few unique cases, smart boards. Recently, school principals are aiming to provide a personal laptop or iPad for every student. Specifically, with its light weight, portability, and user-friendliness, iPads became the newly innovative, educational ethos, diverting middle school education and teaching methods whilst shaping the future education approach.

The goal of this research is to focus on and underline iPad use in classrooms and its effects, potentially effectiveness, regarding the



subjects taught using these devices. In other words, the research will explore and analyze advantages and disadvantages for this technological replacement of textbooks.

Although the first computers were developed in the 1930's, they were enormous in size and costly. Desktop computers were introduced in the 1980's as lacking user-friendliness due to their limited functions. Although the first laptop computers were introduced in 1981 by IBM, it weighed 24 pounds and the costs were \$1800. Apple introduced the Mac laptop in 1984 which weighed less and surprised the consumer with its attractive functions. Apple Inc. had the vision of creating the ultimate, lightest portable device possible, leading to the launch of the iPad in 2010. By the year 2017, 350 million iPads were sold worldwide (Zapata, 17, 2010).

Technological advancements have revolutionized our lives as well as classrooms. Nowadays, almost every classroom worldwide has the advantage of using technology as a part of their exclusive teaching methods by offering lessons through different means: visual, audio, and kinetically. Schools worldwide are gradually drifting away from textbooks and are being drawn to eBooks, therefore alluding to the high demand on iPads. Both educators and parents are encouraged and looking forward for iPads use because they believe that students are more motivated to learn through technological tools.

## 2. Rationale of the Study

The 21st century marks the beginning of iPad uses in the classrooms globally. In 2012, the Jerusalem School in East Jerusalem made a drastic change by replacing their paperback and hard copy textbooks with eBooks. This major transformation was applied to 7th through 12th grades. Several reasons led to this change: the institution, being an elite American school using American curricula, spent enormous amount of money each year on the costs of textbooks, shipping, and handling to Israel including tariffs. As a solution, JHS now pays for electronic textbooks that are downloaded on the students' iPads at the beginning of the scholastic year, ultimately avoiding shipment hassles and taxes. Almost all textbooks are being replaced to electronic books or in process. The Holt McDougal Curriculum is now available as electronic



textbooks for the teachers' version as well as for the students' books from 7th to 12th grades.

JHS aimed to relieve the student from the burden of carrying heavy textbooks. The majority of the JHS community places major concern on the environment, and iPads are the new, eco-friendly alternative that saves wasted paper, trees, and habitats. Additionally, instructors and students communicate by sending all documents by using their emails. By communicating with the students and their parents, by email and Google classrooms, helped in providing a communication channel among all the benefactors. JHS believes the use of iPads is inclusive to all types of the students' needs, especially students with learning disabilities. The American institution also believes that iPad use in high schools prepares students for college system's and reliance on technology.

The iPads are not provided by the school, but rather each student has to invest by purchasing an iPad to be used for 6 academic years. The prices on the iPads are around \$600. At the start of the academic year, JHS's IT technician downloads all textbooks, educational applications such as the Khan Academy application, English, Hebrew, and Arabic dictionaries, an SAT practice application, etc. while also restricting the App Store and other channels of entertainment and unsuitable websites. While many would think otherwise, JHS annually strives to sharpen and maintain their technological integration to their curricula.

#### 3. Limitations

- 1. Unlike hardcopy textbooks, iPads can distract students during lectures.
- 2. Some students experience difficulties with the new technology.
- 3. In some cases, students forget to charge their iPads at home which causes them to be disconnected during lectures and classes.
- 4. There have been cases where students break their iPads which also cause student disconnections during lectures and prevent students from submitting assignments online and gaining access to their school emails.
- 5. Not having Wi-Fi available can be a problem, since it is essential when submitting their assignments, browsing the internet, and checking for various applications requiring Wi-Fi.



- 6. Some curricula are not adapted to having electronic books.
- 7. iPads can experience technical difficulties such as the loss of textbooks, lagging, etc.
- 8. iPads provide access to inappropriate sites that can affect student behavior.

## 4. Problem of the study

Many schools have adopted the iPad or similar 'Post-PC' tablet devices, whilst others are looking to do so in the near future (Clark and Luckin, p. 3, 2013). There will be a focus on how teachers perceive technological influences on education. At the end of this research paper, a trend of how iPads are used in schools will be apparent, the teachers' input regarding this technology being part of the students' learning system, and the iPads' effects on students' results. Additionally, this study will present applicable solutions for the difficulties faced when applying iPads to curricula.

## 5. Purpose of the study

The objective behind this research paper is to:

- 1. Closely observe how iPads are used for teaching different subjects offered at schools.
- 2. Assess the advantages and disadvantages of this technological application in high school curricula.
- 3. Identify the factors that affect the assessment of advantages, disadvantages, and student's attainments (the latter explaining the teachers' effectiveness in teaching, using effective teaching by using technology).
- 4. As aforementioned, to assess this technological application through the lens of teachers.

## 6. Research questions

- 1. How are iPads used to teach subjects such as mathematics, science, history, geography, and languages such as English, Arabic, and Hebrew?
- 2. How are iPads affecting the students' results and scores?
- 3. What is the degree of advantages or disadvantages that are yielded from the technological application in academia?
- 4. What is the percentage of use of the iPad throughout the lesson?



- 5. What is the impact of the usage of the iPad on the students' behavior during the lesson?
- 6. Are there any differences among teachers in regards to their teaching subjects and characteristics as in age, experience, gender, grade level, and subjects?
- 7. The amount of time using the iPad during the lesson?

#### Second field:

- 1. The iPad's advantages
- 2. The iPad's disadvantages
- 3. The impact of iPads on students' results, scores, and achievements

## 8. Hypothesis

- 1. There are no significant differences at the significant level  $\alpha \le 0.05$  between the iPad's advantages, disadvantages and the impact of iPads on students' results, scores, and achievements concerning gender.
- 2. There are no significant differences at the significant level  $\alpha \le 0.05$  between the iPad's advantages, disadvantages and the impact of iPads on students' results, scores, and achievements concerning age.
- 3. There are no significant differences at the significant level  $\alpha \le 0.05$  between the iPad's advantages, disadvantages and the impact of iPads on students' results, scores, and achievements concerning educational level.
- 4. There are no significant differences at the significant level  $\alpha \le 0.05$  between the iPad's advantages, disadvantages and the impact of iPads on students' results, scores, and achievements concerning level grades.
- 5. There are no significant differences at the significant level  $\alpha \le 0.05$  between the iPad's advantages, disadvantages and the impact of iPads on students' results, scores, and achievements concerning subjects taught in classes.
- 6. There are no significant differences at the significant level  $\alpha \leq 0.05$  between the iPad's advantages, disadvantages and the impact of iPads on



students' results, scores, and achievements concerning percentage of time in which iPads are used during lectures.

## 9. Importance of the study

Many schools follow the traditional way of teaching the various subjects where teachers depend on traditional tools such as chalk or white boards, computers and science labs. This study will help shed light on technology's potential in its integration in academia. Additionally, this study will take a closer look on iPad use in the subjects taught in schools. There will be a comparison of the advantages and disadvantages of having iPads substituting numerous textbooks and notebooks. "For decision makers, such as school leaders, there is pressure to enhance learning and iPads offer potential to help." Another importance in the study is its ability to provide other schools with an outlook of iPad use in learning systems by projecting advantages and disadvantages. In a nutshell, schools debating on whether they should integrate technology into their teaching systems will refer to the study to better understand if this shift will academically and financially benefit their schools.

#### **Theoretical Framework**

#### 1. Introduction

Recent years portrayed a very rapid development in the technology domain: smart phones, personal computers, tablets, and Wi-Fi conquer most households. Additionally, technology has also migrated to educational systems, but this is still an early bird. "The stage is distinguished by three characteristics: the demographic change, the acceleration at technology and a large database which is available for researching through it" (Aomour and Abu-Riash, p.2, 2013). By utilizing iPads in schools, both students and teachers will gain access to an "online" library and electronic highway which will ultimately aid them in assignments and curiosity.

#### 2. Definition of Terms:

"The **iPad** is a tablet computer developed by Apple. It is smaller than a typical laptop, but significantly larger than the average smartphone. The iPad does not include a keyboard or a trackpad, but instead has a



touchscreen interface, which is used to control the device" (Christensson 2011). The iPad has a 9.7 inch (diagonal) screen that displays 1024-by-768-pixel resolution at 132 pixels per inch. The data capacity is 16GB, 32GB or 64GB. The iPad's battery life is up to 10 hours. The iPad comes in two main versions: a Wi-Fi (802.11a/b/g/n) only model and; a Wi-Fi plus 3G (mobile phone connection) model. The iPad is the newest member of the iOS family of devices that also includes the iPod Touch and iPhone (Ierland and Woollerton, 2010).

### **Education through iPad:**

Education through iPad is a process of teaching the electronic contents, support the learner, administrate the education and the class interaction through the iPad, as the iPad introduce a new environment for education that can develop the culture of learning in traditional classes. Meanwhile, education through iPads also introduce new activities for learning because they contain the advantages of changing the nature of interaction between students and the element of education. (2011, Khamis)

## 4. Apple's user-friendly features

Without a doubt, Apple is extending their target customers by offering many educational applications for users. All the apps and services your teachers and students need every day, like Google Drive and Microsoft Office, are available on iPad. And with the countless creative tools Apple offers, students are empowered to express their learning in various methods.

#### Examples of some programs:



1. **Khan Academy**: a free application that allows students to free educational tutorials and exercises in the fields of mathematics, physics, economy, art, biology and many more. This app allows students to get help on subjects they feel they are lacking enough knowledge.



2. **Quizlet**: is a free application which allows students to prepare and study for exams by answering quiz questions in relations to mathematics, sciences, English, and many more subjects.





3. **Google Classroom**: a free program by google, which allows teachers to post the assignments and other documents. The students by using this app can send their assignments and answer questions and receive a grade in a paperless manner.



4. **Kahoot**: is an app created by google. It is a is a game-based learning and quizzing that makes learning awesome. The best way to play Kahoot! is in a group, like your classroom. Questions appear on a shared screen and the students answer on their own device.



5. **Good Reader**: is an app designed to allow the students to read, annotate, organize, write, access pdf documents. This app is useful for students and teachers download and save PDF.



5. **Power School**: is an app for teachers, parents, and students. This is a grading system designed as a grade book. where teachers put the grades for parents and students to see. This app does the calculation

# 5. Firstly: Getting the iPads up and running

Apple School Manager is a simple, web-based portal that helps IT administrators deploy iPad and Mac in schools. You can easily provide students and staff with access to Apple services, set up devices, get apps and books, and enable teachers with tools to create engaging learning experiences — all from one place.

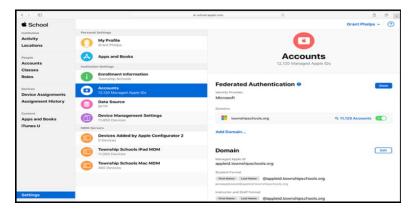




# 6. Integrate the iPads with the school's existing learning systems

With federated authentication in Apple School Manager, it's now easier than ever to integrate iPad and Mac into your existing environment using your school's Microsoft Azure Directory.

Worldwide the schools' curriculums are getting switched to ebooks, making it accessible for schools who wish to change their system to technology friendly.



# 7. Use Azure Active Directory to manage access

Connect Apple School Manager with your school's Pearson Power School program which is designed to get every student and staff member automatically set up with Apple services. Students, staff members, and parents can then use their existing Power School account credentials to log in to iPad, Mac, iCloud, to check assignments posted, comments written by teachers and administrators regarding grades and behavior.



## 8. Prepare for a simplified login experience

- Verify that your school uses Pearson Power School.
- Decide which school domains should be linked to Apple School Manager.
- Set up the connection to Pearson Power School in Apple School Manager.

## 9. Register student information to system

The easiest way to access class rosters with students and teachers set up in Apple School Manager is through a direct connection to the schools's roster data in the Student Information System (SIS). Apple School Manager integrates directly with popular SIS providers including SunGard, Infinite Campus, and PowerSchool. Roster information is then available for Schoolwork, Classroom and Shared iPad, so teachers can start working with their class immediately.

## 10. Build an individualized experience for students and staff

With educational apps, iPads can become a laboratory, a movie studio, a time machine, and even a spaceship. Apple School Manager makes it easy to provide classrooms with the right learning materials in time for the first day of class, from the productivity apps schools need for their daily workflows, and free Apple-designed apps for doing and creating, to the thousands of apps in the App Store designed specifically for learning.

When the federated authentication is set up, students and teachers can use their existing login to access the full range of Apple services, including 200GB of free iCloud Storage and the ability to collaborate in Pages, Keynote, Microsoft Word, Good Reader, and many more. Students are provided with an individualized experience on iPad, even if they're sharing a device. Teachers can use Schoolwork to hand out assignments and follow student progress, helping them tailor instruction to each student's needs. Most importantly, everyone's personal data will remain private and secure.



## 11. Set up devices instantly

Once the learning experiences for students and teachers are set up you want your teachers and students to have, you can set up devices so everyone can get up and running quickly. Whether your school chooses a one-to-one iPad environment or a shared iPad model, with Apple School Manager and your mobile device management (MDM) solution, you can easily automate device setup. Wirelessly configure settings and restrictions according to your school's requirements, then assign devices to students, teachers, or class groups.

#### 11. Use in the classroom

With devices in the hands of students, it's important to set teachers up with the right tools to create great learning experiences. iPad fits right in to your school's existing productivity workflows, with native support for apps like Google Drive and Microsoft Office. And Classroom, Schoolwork, and Apple TV help your teachers go further and transform their classrooms into dynamic and interactive learning environments. When you set up student accounts and class rosters in Apple School Manager, classes are automatically available in Classroom and Schoolwork, so teachers can start working right away. And you can enable Student Progress for Schoolwork from the Settings area of Apple School Manager, or disable this feature for individual students in the Accounts area.

# 12. Set up Apple TV for sharing and collaboration

Apple TV is a great addition to any classroom or conference room. It allows iPads to wirelessly display their screen to share presentations, websites, and videos. Management features in tv OS make it simple for schools to configure Apple TV. Apple School Manager or Apple Configurator 2 can enrol Apple TV in MDM and fully configure it simply by plugging in power and Ethernet — no user input required. Schools can manage Apple TV at scale including the option to remotely set Air Play security settings and greater control of what shows on the default Home screen. With MDM you can also



set the Apple TV name, network, and Conference Room Display Mode with a custom message



All the features are from the Apple site: <a href="https://www.apple.com/education/it/">https://www.apple.com/education/it/</a>

## Characteristics of iPad's usage:

The iPad usage has different advantages make it useful at education:

- 1-Easy for carrying compare to carrying books. It is also evident that the education through iPad will make it easy for the student by allowing the students to learn any where without barriers nor obstacles.
- 2-Easy for processing and downloading the programs from the apple company sites, and it easy to contact with the different tools like the external speakers and display devices.
- 3-It's battery has long life, and it may reach to (10) hours, this will allow the student to move and to carrying out many tasks such as doing homework, preparing for presentations, and studying.
- 4-It is easy to deal the iPad's screen through one touch only.
- 5-It is easy to save files and share it through certain application that can be useful and the user can get it by the providers. The student will also be able to share it with the teachers as well.



6-It has high safety degree for information and files which can be available by the operating system (ios) the matter can make the penetration by viruses is difficult.

7-The student can use the camera for acquiring the educational documents to electronic documents then the student can save it and share it with the other students, or use it for presentations and other tasks.

8-Using the communication programs that available at the iPad and the available social sites for the students to contact their teachers. Applications such as google classroom, Near Pod, and many others.

9-It is possible to save a huge number of information sources like books, photos and maps. the student can manage it and search through it easily and refresh it continuously, by using special apps such as Pages, Word, Good Readers

10-It saves papers, effort, time and money.

11-The speed and high quality at the execution of the administrative tasks of the teacher through the application which guarantee the flexibly, safety and easily like the task of restriction the students at the class and evaluation of the students.

12-The iPad can be considered as a step for changing the traditional classes to smart classes. So that it can be administrate the tasks and the student's activities and ensure the class interaction by through certain application which is available at apple store.(Al-Shamrani, 2013)

#### How does the iPad revolutionize the education?

It is not difficult to imagine how the iPad could revolutionize the classroom. The iPad (along with Wi-Fi equipped buildings) will facilitate the following six main developments:

1-The students will reach by easy to audio or video sections and control that rather than the teacher, playing material will be available to students



individually, and student will be able to decide how to play and when and free to choose.

- 2-Student can get through wi-fi the materials that he wants by downloading or uploading.
- 3-Every classroom can be a CALL or LL room. CALL and LL rooms can be liberated from the constraints of bulky furniture like chairs and tables that have been a barrier between other students and between the students and the teacher.
- 4-The internet will be available for the student and can research any material for any purpose spatially for searching the books through the school library and about the scientific topics.
- 5-The iPad is not a costumer device and the user is not a solely a recipient of material only, he also can author intended or required material by a several software programs like iWork, a suite of applications that includes Pages (a word processor/page layout program), Numbers (a spreadsheet) and Keynote (a presentation tool).
- 6-The iPad can be used as a presentation tool and can be connected to large displays and projection systems. (Ireland and Woollerton , 2010)

#### Literature review:

Many study research by the application of iPad at schools, like (*Al sufi, 2014*)The theses aimed to evaluate the use of iPads in schools at it's time, particularly K-12 schools, as well as to build a future idea about how they might be used more effectively. For investigation of this aim, the researcher depends a quantitative research method and designed a questionnaire consist of a 32 question, Out of them 18 were multiple-choice questions, and 14 involved free responses. The free responses allowed for a wide range of opinions, and for descriptive statistics to be gathered., the survey was applied on a sample of 250 size of participants. 65 participants responses all the 32 questions. The distribution of the respondents over the gender was 77% females and 23 males. And over the age categories, approximately 45% at the age category (22-25), 38% at the age category (above than 25) and 17% were at the age category (18 – 21). A majority, 62%, had obtained a Bachelor's degree as their highest form of education. The participants were consisted from two schools, one



in Bowling Green and the other in Toledo. The results of the study revealed that most teachers, whether or not they already use iPads as a tool for instruction, would use them as such if they were available and if their access was cost-effective. It also revealed that most teachers who are currently using iPads for the purpose of classroom instruction are able to recognize and articulate various ways that may be useful and beneficial tools for this purpose, the study also recommended that parents, teachers, school administrators, and government officials communicate with one another and work together to ensure that technology is used efficiently.

And the study of (Bebell and Pedulla, 2015) which is an experimental study and it's objective was to measure students' achievement while using laptop computers, tablets, and smartphones in the classrooms. Although increasing students' technology access may be associated with increased student achievement, there is little research directly investigating this objective. This study addresses the short-term and longterm quantitative impacts of one of the world's first school efforts to provide Kindergarten through 3<sup>rd</sup> grade classrooms with 1:1 iPad access and a range of English Language Arts (ELA) and math Apps. The study has summarized two investigations conducted during this iPad implementation. First, a 9-week pre/post randomized control trial was conducted in which 8 Kindergarten classes used literacy and numeracy apps while another 8 Kindergarten classes used their traditional (noniPad) resources. At the end of this short implementation period, slightly stronger literacy performance gains were observed in the iPad settings. In a second longitudinal study, three years of assessment data were explored before and after the 1:1 iPad implementation in grades K to 2. Results from the longitudinal study provide emerging evidence of potential increases in ELA achievement, but no consistent results in math achievement. This paper adds to the sparse literature in this area and provides a springboard for further research.

Also (*Al-Anzie*, 2018) study aimed to evaluate the experience of using the iPad in the educational process from the prospective of teachers and educational supervisors in state of Kuwait. As well as whether this evaluation would vary according to their academic qualifications,



experiences and the nature of their work. A questionnaire has been designed as a tool of the study and consisting of (50) paragraphs divided into 4 sections: 1-Evaluating content provided by iPad, 2-evaluating the use of ipad by learners, 3- evaluating the use of iPad by teachers, and 4advantages of using iPad in education. The tool proved to be true and sufficient in achieving the purposes of the study. The sample of the study consisted of (50) teachers and (50) educational supervisors who were chosen from three educational areas which are Farwaniya, Jahra And Capital. Results showed that the degree of Evaluating the use of iPad in educational process from the prospective of teachers and educational supervisors was high. Results proved that there are no differences of statistical evidence attributed for the variables of study except for one variable. This variable is experience years of educational supervisors in two sections: using iPad, iPad by teacher and advantages of using iPad by supervisors of short and long experience. The results proved to be for the benefits of the latter. In addition the iPad characterized by several advantages which easily attracts the students and make them like to deal with their iPads as it contains animations, pictures, video sections, colours, movements and many exciting contents for the students. In light of these results, the study recommended generalizing the experience of using iPad for all subjects in Kuwaiti schools. The study also presented a number of recommendations.

The study of (*Karsenti and others*, 2013) which aimed to carry out it's **objective**: to help the schools for achieving their education mission, and to gain a deeper understanding of the uses, benefits, and challenges of using the iPad in school. In order to carry out this aim.

## Sample study and study tool:

The study covered a sample 6,057 students (from Grade 6 to 10) participated in Phase 1 on iPad use in Quebec schools 48.4% of them are girls and 51.6% of them are boys. And they were 14 years old on average. Note that Phase 2 of the study is ongoing. In addition, a sample of 302 teachers 42.7% of them are men and 57.3% of them are women in the study. The teachers taught a variety of school subjects and had a



wide range of teaching experience. While the students sample comprised two use settings for the iPad at school, the first is individual use, which is an educational setting in which each student has an individual iPad at school and at home with 87% of participants and the other is a shared use, which is an educational setting in which students share an iPad with at least one other student and the iPad remains at school with 13% of participants. The data was collected by six ways which is Online surveys for teachers (n = 302), Online surveys for students (n = 6,057), Semi-directed individual interviews with teachers (n = 18), Semi-directed group interviews with students (n = 44), Semi-directed group interviews with teachers (n = 16) and Videotaped classroom observations (n = 18, 60–90-minute periods). But the research concentrated on the online completed by students and teachers. To illustrate some of the findings, the study also present some extracts from the individual and group interviews.

## iPad uses:

Because the questionnaire data comprised both Likert scales and open questions, they were analyzed quantitatively and qualitatively. The survey results showed that 53.6% of the students had "never or very rarely" used an iPad before the school's experimental program, 30.9% had used one sometimes, and 15.5% had used one regularly. The survey results showed that 70.2% of the teachers had "never or very rarely" used an iPad prior to the school's experimental program, 14.5% had used one sometimes, and 15.2% had used one regularly. Furthermore, the teachers appeared to have had even less experience with the iPad than their students had. Thus, 53.6% of the students reported that they had no previous experience with the iPad. For instance, we note that for every 60 minutes of teaching, 88.5% of the students reported using the iPad for less than a quarter of the class time.

Of the most frequently applied uses, electronic textbooks (etextbooks), applications such as iAnnotate and PDF Expert, Next was Pages for iPad, The students also mentioned that they used Dictionary, The multimedia application Keynote came fifth. Next came the school's



portal, for managing schoolwork and homework. Students used iStudies to organize their agenda and course schedule and to see what work and homework they had to do, some students used Instagram, a photosharing, video-sharing, and social networking application. Email came in last place.

## **The Educational Applications:**

And the educational applications on the iPad by that the students do by frequency are Doing schoolwork, internet searches, Gaming, Making course notes, Agenda, Comunnication with peers and others, Doing projects, Studying and reviewing, Multimedia and Reading. And out the class room arranged descendingly are Facebook, iMessage, Homework, Games, Photos and videos, surfing, Music and Agenda. And 908 student spend their time regulary on writing, 2871 rarley and 2278 never.

## The benefits:

The benefits of iPad using as the students and teachers see are academic performance, access to more informations on the internet, access to etextbook, concentration in class, motivation in class, collaboration among students outside class, collaboration among students in class, quality of schoolwork, quality of organizations and exibits, work organization, creativity and IT skills.

# **Challenges:**

Main challenges at using the iPad in class, as perceived by students are distraction, difficulty writing with iPad, difficulty organizing work, unsuitable textbooks and lower academic performance. And the Main challenges in using the iPad in class, as perceived by teachers are major source of distraction, difficulty writing with the iPad, difficult to organize schoolwork, unsuitable textbooks and lower academic performance. But the overall satisfaction by teachers about iPad using at school is 23% very or extremely satisfied, 53% moderately satisfied and 24% somewhat or



completely dissatisfied, and the overall satisfaction by students is 56% very or extremely satisfied, 36% moderately satisfied and 7% somewhat or completely dissatisfied.

### **Study recommendatios:**

The study recommended by training the teachers in both the pedagogical aspects (class management and subject teaching methods) and technical aspects of student use of iPads at school. Resources should be made available to teachers ahead of time, teachers should be made aware of both the benefits and challenges of iPads in education, the study also recommended that the better teachers do not remain in front of the class, but instead circulate among the students. The results also showed that the better teachers, even though they get their students to use the iPad regularly, ask them to put them away at times in order to get their full attention. And for avoiding distraction it would be critical to implement various strategies to train the students in how to get full use out of their iPad and to ensure accountability, in and outside of class. It appears critical to promote reading on the touchpad, and to rekindle students' interest in reading in general via the touchpad. Textbooks should be suitable and accessible at all times and the activities they contain should be interactive and they should appeal to the students. Designers of educational applications could take into account some of the clearly identified needs in this study when they develop applications. It would be important to conduct studies on experimental programs implementing iPads in schools. Finally, encourage the governments to provide the schools by the iPads and train the teachers and students how to use and take the useful from the iPad.

(Benton, 2012)At present, handheld devices and tablet computers are infiltrating public schools across the nation, the most popular model being the Apple iPad. Schools and teachers are attempting to integrate the devices and are using a variety of methods and models for implementation. The purpose of this study was to examine the implementation of the iPad as an instructional tool through the experiences of classroom teachers. A review of related literature was conducted to inform the conceptual framework, design, data collection,



analysis, and synthesis components and stages of this study. Qualitative including teacher-participant interviews and classroom observations, were utilized in this study and served to inform the researcher's understanding of the phenomenon. The purposefully selected sample consisted of eight teacher participants who were engaged in an iPad implementation project in their respective schools in Jobs School District. The data collected underwent several phases of coding and subsequent findings were organized to reflect the research questions and conceptual framework. The research revealed that teachers did not receive adequate support to integrate iPads in their respective content areas. As a result, teachers relied on colleagues and their students for support. The research also revealed that teacher pedagogical behaviors remained unchanged throughout the implementation period. Teachers tended to continue to focus on standardized test preparation and to rely on the same instructional methods that they utilized prior to In addition, the research indicated that implementing the devices. teachers perceived that iPads had the potential to positively impact student engagement and learning. This was based on teachers' perceptions increases related to student time-on-task and improvements in quality of work.

Recommendations are offered for practicing educators, for further research, and for educational policy.

## Methodology:

The study was depended on the analytical descriptive method so that it used the papers, books and journals for consisting a clear picture about the level of iPad's advantages, disadvantages and it's impact on the student's attainment, with the results of the analyzed collected data by a suitable prepared questionnaire.

# Borders of the study:

1-Time borders:-the study was carried out across the period from 1<sup>st</sup> May to 1<sup>st</sup> June.



- 2-Spatial borders:- the study was done at Jerusalem Schools in Jerusalem and in Bethlehem and applied on a randomly chosen schools from those that use iPads at teaching.
- 3-Human Borders:- the questionnaire was applied on a sample of teachers at the chosen schools.

## Sample of the study:

The study was applied on the population of teachers at Jerusalem Schools in Jerusalem and in Bethlehem, at the period from 1<sup>st</sup> May to 1<sup>st</sup> July, by selecting a random sample of size 60 teacher, and depends on a random way of selection by choosing the sample members from these two schools, and this sample has several characteristics as in the following table:

## characteristics of the sample:

## table(1)Frequencies and percentages of the sample variables:

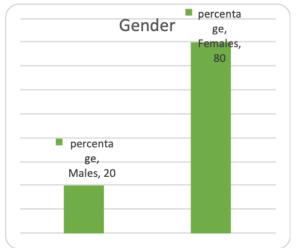
variable	category	Percentage	Frequency
Gender	Male	20.0	12
	female	80.0	48
Age by years	Less than 30	38.3	23
	31 - 35	28.3	17
	36 - 40	11.7	7
	More than 40	21.7	13
Educational	Diploma	3.3	2
level	BA	58.3	35
	MA	35.0	21
	More than MA	3.3	2
percentage	100%	13.3	8
time of using	75%	23.3	14
the iPad	50%	31.7	19
	25%	31.7	19
The subject	class teacher or	25.0	15
	multiple		
	pre aljebra or	21.7	13
	seince or math		



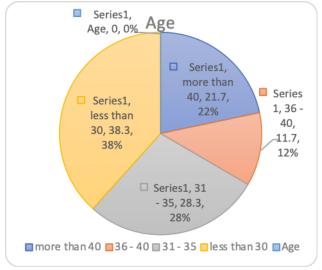
	Computer	16.7	10
	language or	25.0	15
	language or history		
	others	11.7	7
The classes	1 – 4	18.3	11
	5 – 8	43.3	26
	9 - 12	38.3	23

The above table shows the distribution of the sample and it can be more clear by the following diagrams.

A) The figure shows the distribution of the study sample by gender where 20% of the sample is males by size of 12 and 80% is



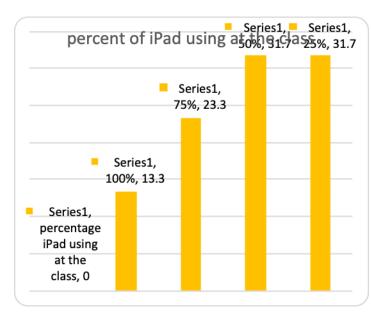
females by size of 48 upon the type of gender.



B) The figure shows the distribution of the when the sample distributed by age we see that 38.3% of teachers are from the category of (less than 30) years by size of 23, 28.3% of teachers are from the category (31 - 35) by size of 17, 11.7% teachers are from the category (36 - 40) by size of 7 and 21.7% teachers (more than 40) years by size of 13.





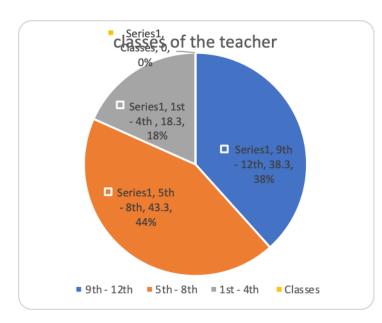


C)The educational level by 3.3% have diploma, by size of 2, 58.3% have BA of size 35, 35% have MA, by size of 21 and 3.3% teachers of size 2 have degree more than MA

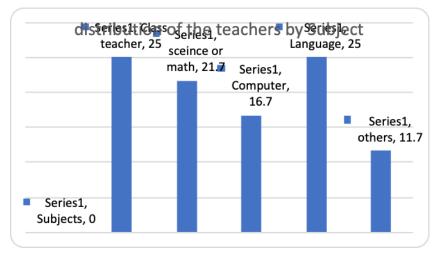
D) The sample distributed by the percentage time of using the iPad at the lecture by13.3% with percent of (100%) by size of 8, 23.3% with percent of (75%) by size of 14, 31.7% with percent of (50%) by size of 19 and 31.7% with percent of (25%) by size of 19, and

this results agreed with (*Al-Anzie*, 2018)"degree of Evaluating the use of iPad in educational process from the prospective of teachers and educational supervisors was high"





E) The sample distributed by the classes, where 18.3% of the teachers teach the classes (1st – 4th), 43% of the teachers teach the classes (5th – 8th) and 38.3% of the teachers teach the classes (9th – 12th).



F) The sample also has distributed over the subject so that 25% of the teachers are class teachers, 21.7% of the teachers tech (science or math), 16.7% of the teachers teach

computer, 25% of the teachers teach language or history while 11.7 teach other subjects.

# Study tool:

The study tool is a questionnaire which has been designed for investigating the study aims, which constitute of a two main fields, the



first field contains the demographic variables of the chosen sample, which is the gender, age, educational level, the classes taught by teacher, the subjects that taught by the teacher and the percentage time that taken by the iPad during lecture. The second field consists of three major parts, the first part contains nine paragraphs for evaluation the advantages of the iPads, the second part contains also nine paragraphs for evaluating the disadvantages of the iPads and the third part contains twelve paragraphs for the impact of the iPads on the educational attainment.

## Reliability and consistent of the study tool:

#### Consistent:

To ensure from that the study tool is logically consistent we pass it on a number of arbitrators for correction the logic consistent, and then take their notes seriously and modifying the mistakes as they see. It was later applied on the sample.

## Reliability and consistent of the study tool:

To ensure from the reliability and consistent of the study tool the Chronbach's Alpha was used to calculate coefficient for each field at the study and it was 0.861, 0.825 and .779. For ipads advantages, disadvantages and impact on the educational attainment, respectively. and these Cronbach's Alpha coefficients for each field of the study lies at the following table.

Table(2): the chrombach's alpha values

The field	Alpha	Number of	Sample size
	coefficient	paragraphs	
	value		
Advantages of iPad	0/1	9	60
using at schools:	.861		
Disadvantages of		9	60
iPad using at	.825		
schools:			
Impact of iPad		12	60
using on the	770		
educational	.779		
attainment:			



The above table indicates that the results of the iPad's advantages is reliable by 86.1%. The results of the iPad's disadvantages is reliable by 82.5%, and the results of the impact of the iPad on the educational attainment is reliable by 77.9%.

### Statistical analyses of the data:

After collecting the data by the questionnaire, the SPSS (statistical package for social science ) and have used the means and standard deviations to evaluate study variables, to answer the questions of the research used the Fifth Likert Scale for evaluation the degree of each paragraph, so each degree(mean) for each paragraph will be from 5. The dump of the data depended encoding the paragraphs answers, so that: strongly agree = 5, agree = 4, have no opinion = 3, disagree = 2, strongly disagree= 1, and the following table shows the evaluation key of the analyses:

Table(3) mean degrees:

Range of the mean value	degree
1 – 1.80	Strongly disagree
1.81 - 2.60	Disagree
2.61 – 3.40	Neutral
3.41 – 4.20	Agree
4.21 - 5	Strongly agree

First question: What is the iPad's advantages or benefits?
-I can answer this question by:

# table(4):description of the field of the iPad's advantages by means and standard deviations:

number	The paragraph	St.deviation	Mean	Degree
1	iPads motivate the students	1.24181	3.6833	Agree
2	iPad saves time and effort	.69624	4.3000	Strongly
				Agree
3	iPad helps the teacher to see the	.97366	4.0333	Agree
	students' works anytime			
4	It is easier for students to carry iPad	.73242	4.3500	Strongly
	than carrying many books			agree



5	Students can view YouTube videos,	1.21421	3.8167	Agree
	flashes on iPad			
6	ipad is more interesting and easier than	1.32085	3.5333	Agree
	the book			
7	Ipad improves interaction between	1.21153	3.3000	Neutral
	students			
8	IPad improves the student's reading	1.32597	3.0667	Neutral
	skills			
9	IPad allows the students to get the	.67961	4.2500	Strongly
	information easier			agree
	Over all degree	.74062	3.8148	Agree

The above table shows that respondents have agreed that the iPad motivates students by a mean of 3.68 and a standard deviation of 1.24, and strongly agreed that it saves time and effort by a mean of 4.30 and a standard deviation of 0.97. The usage of the iPad helps the teachers to see the students' work at any time, by a mean of 4.03 and a standard deviation of 0.97. The fact that it easer than books for student to carry, by a highest mean of 4.35 and a standard deviation of 0.73, students can view many videos and flashes by iPad by mean of 3.81 and a standard deviation of 1.21, and it is more interesting and easer than books, by a mean of 3.53 and a standard deviation of 1.32, and it allows the students to get information easer than books, by a mean of 4.25, and a standard deviation of 0.67, and the over all degree is 3.81 and it's standard deviation is 0.74 with agree evaluation. But the respondents have neutral towards some advantages which is that it improves student's reading skills, by a lowest mean of 3.06 and a standard deviation of 1.32, and it improves interaction between students by a mean of 3.30 and a standard deviation of 1.32.

#### Conclusion:

-The advantages of the iPad are as follows; 1. It easier for carrying than books. 2.It saves time and effort. 3. It allows the students to reach the information easier. 4. Several apps help the teacher to correct the student work. 5. Students can watch videos on YouTube. The iPad is a source of motivation for the students, which agreed the study (*Al-Anzie*, 2018) "iPad characterized by several advantages which easily attracts the



students and make them like to deal with their iPads as it contains animations, pictures, video sections, colours, movements and many exciting contents for the students". While (*Karsenti and others, 2013*) sees that "the iPad's advantages on the academic performance, access to more informations on the internet, access to etextbook, concentration in class, motivation in class, collaboration among students outside class, collaboration among students in class, quality of schoolwork, quality of organizations and exibits, work organization, creativity and IT skills".

# Second question: what is the iPad disadvantages or challenges? -The following chart answers this question:

Table(5): description of the field of the iPad's disadvantages by the means and standard deviations of each paragraph:

number	The paragraph	St.	Mean	Degree
		Deviation		
1	IPad is distracting	.98161	3.9500	Agree
2	IPad distracts students with attention	.81978	3.8500	Agree
	deficit hyperactivity disorder			
3	IPad is used for inappropriate content	1.11221	3.4833	Agree
4	The students use ipad to play games	.82339	4.0000	Agree
	during class			
5	Students easily cheat and copy	.68458	4.3500	Strongly
	assignments			agree
6	IPad affects the students' eye vision	1.11424	3.7500	Agree
7	iPad affects the students' thoughts and	1.12546	3.5667	Agree
	ideas			
8	Lack of electricity affects their work	.97366	3.9667	Agree
9	Students can access their Facebook in	1.28210	3.1833	Neutral
	class			
	Over all degree	.64940	3.7889	agree

The above tables shows that all the paragraphs got the agree or strongly agree evaluation, except the paragraph that the student can access the facebook at the class going away from the learning, by a mean of 3.18 and a standard deviation of 1.28 and neutral evaluation, the I pad distract the students by a mean of 3.95 and a standard deviation of 0.98, distracts students with attention deficit hyperactivity disorder, with a mean of 3.85



and a standard deviation of 0.81, can be used for inappropriate contents, by a mean of 3.43 and a standard deviation of 1.11, the student can play games through class, by a mean of 4.00 and a standard deviation of 0.82, the student can cheat and copy assignments, by a highest mean of 4.35 and a standard deviation of .68, effect the student's eye vision, by a mean of 3.75 and a standard deviation of 1.11, effects the student's thoughts and ideas, by a mean of 3.56 and a standard deviation of 1.12, they may suffer the lake of electricity affecting on their works, by a mean of 3.96 and a standard deviation of .97, and the overall mean is 3.78 and the standard deviation is .64.

## Conclusion:

- -The disadvantages of the iPad are: 1. distracting, 2. students can use it for games, 3. Allows cheating and 4. copy the assignments.
- -It may effect the students' eye vision, thoughts and ideas.
- -The lake of electricity will affect the students works.

And this agrees the study (*Karsenti and others*, 2013)"distraction, difficulty writing with iPad, dificulty organizing work, unsuitable textbooks and lower academic performance. And the Main challenges in using the iPad in class, as perceived by teachers are major source of distraction, difficulty writing with the iPad, difficult to organize schoolwork, unsuitable textbooks and lower academic performance

Third question: how the iPad affects the student's educational attainments:

It can answered by:

Table(6): description of the impact of iPad on the educational attainment by means and a standard deviations:

number	The paragraph	St.	Mean	Degree
		deviation		



1	IPad usage affects the students' writing	1.01667	3.9833	Agree
	skill			
2	Students easily can access the internet	1.00788	4.0333	Agree
3	IPad usage affects the students'	.81563	4.2500	Strongly
	penmanship			agree
4	iPad usage enhance the student's	1.18178	3.6000	Agree
	creativity			
5	IPad is a source of knowledge even	1.09686	3.8167	Agree
	though it is restricted			
6	IPad enables the students to accomplish	.80183	4.0333	Agree
	their work faster			
7	IPad enables better communication	1.26792	3.4500	Agree
	during class			
8	Students get confused from numerous	1.24010	3.4333	Agree
	messages			
9	iPad causes the student not to listen to the	1.05445	3.8000	Agree
	teacher			
10	IPad allows the students to be more	1.21327	3.5500	Agree
	organized			
11	IPad usage allows the students to have	.85354	4.0167	Agree
	better skills in technology			
12	IPad develop the teacher's skills	1.11221	3.6833	Agree
	Over all degree	.57609	3.8042	agree

The above table shows that all the paragraphs agree or strongly agree degree, and the highest mean was for the affecting of the iPad on the penmanship of the students by a mean of 4.25 and a standard deviation of .81, and the lowest mean was for the confusion of the students from the numerous messages, by a mean of 3.43 and a standard deviation of 1.24. The iPad affects the student's writing skills, by a mean of 3.98 and a standard deviation of 1.01. The student can easily access the internet, by a mean of 4.03 and a standard deviation of 1.00, and it enhance the student's creativity, by a mean of 3.60 and a standard deviation of 1.18. It is a source of knowledge, by a mean of 3.81 and a standard deviation of 1.09, enables the students to accomplish their work faster, by a mean of 4.03 and a standard deviation 0.80. It enables better communication during the class, by a mean of 3.45 and a standard deviation of 1.24. The iPad causes the students not to listen to the teacher, by a mean of 3.80 and a standard deviation of 1.05. It allows the students to be more organized,



by a mean of 3.55 and a standard deviation of 1.21. It allows the students to have better skills in technology, by a mean of 4.01 and a standard deviation of 1.11, and the overall mean is 3.80.

## Conclusion:

- -The iPads help the students to access the internet easily.
- -The iPad impact the student's writing skills, penmanship, Students can be confused from numerous messages and the students do not listen to the teacher.
- -The iPad enhances the student's creativity, it is a source of knowledge, facilitate the communication between the students, allow to the students to be more organized and have better skills at technology. This agrees with the study (*Benton*, 2012) "teachers perceived that iPads had the potential to positively impact student engagement and learning".

## Hypothesis of the Study:

## The First Hypothesis:

There is no significant differences at significance level  $\alpha \le 0.05$  at the iPad's advantages, disadvantages and impact on the student's attainments refers to gender.

Table(7): Testing of the hypotheses by independent sample t-test:

Independent Samples Test								
	Sexual	t-test	for Equalit	y of Means				
	type	N	mean	St	t	df	Sig. (2-	
				.deviation			tailed)	
Advantages of	Male	12	3.8426	.91436	.144	58	.886	
iPad using at	female	48	3.8079	.70188				
schools:								
Disadvantages	Male	12	3.5093	.55950	-	58	.096	
of iPad using	female	48	3.8588	.65664	1.694			
at schools:								
Impact of iPad	Male	12	3.6944	.88144	735	58	.465	
using on The	female	48	3.8316	.48056				
Students'								
Attainments								

From the above table we see that there is no differences at the advantages, disadvantages and the impact on the attainment refers to sexual type. So that the mean for the advantages of the iPad that evaluated by males is 3.84 and by females is 3.80 and the p-value for determining the



significance of the differences between the males and females is .886. the mean for the disadvantages of the iPad of males is 3.50 and of the females is 3.85 and the p-value for determining the significance of the differences between the males and females is . the mean for the impact of the iPad that evaluated by is 3.69 and of the females is 3.83 and the p-value for determining the significance of the differences between the males and females is .465.

### Conclusion:

-There are no significant differences regarding the iPad's males and females evaluation.

## The Second Hypothesis:

There is no significant differences at significance level  $\alpha \leq 0.05$  at the iPad's advantages, disadvantages and impact on the student's attainments refers to age.

Table(8):- one way anova -test for comparing the various age category means:

field		Sum of	df	Mean	F	Sig.
		Squares		Square		
advantages	Between	8.267	3	2.756	6.405	.001
	Groups					
	Within	24.095	56	.430		
	Groups					
	Total	32.362	59			
disadvantages	Between	1.161	3	.387	.914	.440
	Groups					
	Within	23.721	56	.424		
	Groups					
	Total	24.881	59			
impact	Between	2.843	3	.948	3.170	.031
	Groups					
	Within	16.738	56	.299		
	Groups					
	Total	19.581	59			



From the above table we see that there is a significant differences at the iPad's advantages based on age, so that the p-value for determining the significance of the difference is 0.001. and it's impact on the student's attainment by a P-value of 0.031, but there is no significant differences at the iPad's disadvantages by a P-value of 0.440.

-for determining the differences and it's directions we go to use the LSD test, as in the following table:

` ′	Table(9): Multiple Comparisons by LSD test between the various age category means:								
2 2 .									
Dependent	(I) age	(J) age	Mean	Std.	Sig.				
Variable			Differenc	Error					
			e (I-J)						
Advantages	less than	31 - 35	45155*	.2098	.036				
	30			0					
		36 - 40	-1.21532*	.2831	.000				
				5					
	31 - 35	36 - 40	76377*	.2945	.012				
				8					
	36 - 40	more	.92918*	.3075	.004				
		than 40		1					
Impact on the	less than	36 - 40	70238*	.2360	.004				
attainment	30			0					

The level of the advantages of the iPad using for the age category (less than 30) less by .45 than the age category (31 - 45) with a significance level of .036, and less by 1.21 than the age category (36 - 40) with a significant level of .000, and for the age (31 - 35) less by .76 than the age category (36 - 40) with a significance level of 0.012, and the age category (36 - 40) more than the age category (more than 40) by .92 with a significance of .004. and the difference at the impact of the iPad using is 0.70 for the age category (less than 30) than the age category (36 - 40) with a significance level of .004.



## The Third Hypothesis:

There is no significant difference at significance level  $\alpha \leq 0.05$  at the iPad's advantages, disadvantages and impact on the student's attainments refers to educational level.

Table(10):- one way anova -test for comparing the various educational category means:

field		Sum of	df	Mean	F	Sig.
		Squares		Square		
adva	Between	3.129	3	1.043	1.998	.125
ntage	Groups					
S	Within	29.233	56	.522		
	Groups					
	Total	32.362	59			
disad	Between	1.073	3	.358	.841	.477
vanta	Groups					
ges	Within	23.809	56	.425		
	Groups					
	Total	24.881	59			
impa	Between	5.953	3	1.984	8.155	.000
ct	Groups					
	Within	13.628	56	.243		
	Groups					
	Total	19.581	59			

From the above table we see that there is a significant differences at the ipad's impact on the student's attainment with a significance level of .000, but there is no significant differences at the ipad's advantages with a significance level of 125 and there is no significance difference at the disadvantages with a significance level of .477.

-for determining the differences and it's directions go to use the LSD test, as in the following table:

Table(12):Multiple Comparisons by LSD test between the various educational category means:

Dependent	(I) edu	(J) educational	Mean	Std. Error	Sig.
Variable		level	Difference		
			(I-J)		



The impact on the	Ba	higher than MA	1.63095*	.35865	.00
attainment					0
	MA	higher than MA	1.39683*	.36505	.00
					0

The above table shows that the evaluation for the teachers who have BA degree is 1.63 more than the teachers who have more than MA degree with a significance of .000, and for the teachers who have MA degree is 1.39 more than the teachers who have more than MA degree with a significance level of .000.

## Conclusion:

- -There is no significant difference at the evaluation of advantages and at the evaluation of the disadvantages.
- -The teachers who have BA degree and who have MA degree have more evaluations than teachers who have (higher than the MA) degree, the matter might be explained by the method of teachers at teaching and that the lower degrees teachers use the iPad more.

## The Fourth Hypothesis:

There is no significant differences at significance level  $\alpha \le 0.05$  at the iPad's advantages, disadvantages and impact on the student's attainments refers to classes.

Table(13):- one way anova -test for comparing the class means:

field		Sum of	df	Mean	F	Sig.
		Squares		Square		
adva	Between	5.490	2	2.745	5.823	.005
ntage	Groups					
S	Within	26.872	57	.471		
	Groups					
	Total	32.362	59			
disad	Between	1.394	2	.697	1.691	.193
vanta	Groups					
ges	Within	23.488	57	.412		
	Groups					
	Total	24.881	59			
impa	Between	1.718	2	.859	2.742	.073
ct	Groups		_			_
	Within	17.863	57	.313		



Groups				
Total	19.581	59		

From the above table we see that there is a significant difference at the iPad's advantages based on the classes , and that the p-value for determining the significance of the difference is 0.005. and there is no significance difference at the impact on the student's attainment by a P-value of 0.073, and at the iPad's disadvantages by a P-value of 0.193 -For determining the differences and it's directions the LSD test is used, as shown in the following table:

Table(14): Multiple Comparisons by LSD test between the various class's means:

Dependent	(I)	(J)	Mean	Std.	Sig.
Variable	class1	class1	Difference	Error	
			(I-J)		
Advantages of	9 - 12	1 - 4	53491*	.25170	.038
iPad using		5 - 8	65069*	.19654	.002

The above table shows that the teachers who teach the classes (9 - 12) have less evaluation than the teachers of the classes (1 - 4) by .53 with a significance level .038, and less than the teachers of the classes (5 - 8) by .65 with a significance level of .002.

## The Fifth Hypothesis:

There is no significant difference at significance level  $\alpha \leq 0.05$  at the iPad's advantages, disadvantages and impact on the student's attainments refers to subjects.

Table(15):- one way anova -test for comparing the subject's means:

field		Sum of	df	Mean	F	Sig.
		Squares		Square		
adva	Between	13.068	4	3.267	9.313	.000
ntage	Groups					
S	Within	19.294	55	.351		
	Groups					
	Total	32.362	59			

disad	Between	3.935	4	.984	2.583	.047
vanta	Groups					
ges	Within	20.947	55	.381		
	Groups					
	Total	24.881	59			
impa	Between	5.195	4	1.299	4.965	.002
ct	Groups					
	Within	14.386	55	.262		
	Groups					
	Total	19.581	59			

From the above table we can see that there is a significant difference at the iPad's advantages of the iPad's usage with a significance level of .000, and at disadvantages with a significance level of .047 and at the impact on student's attainment with a significance level of 0.002.

-For determining the differences and it's directions the LSD test is used, as shown in the following table:

Table(16): Multiple Comparisons by LSD test:

Dependent	(I) Subject	(J) Subject	Mean	Std.	Sig.
Variable			Difference	Error	
			(I-J)		
Advantages	class teacher	pre aljebra or	.58803*	.22444	.011
field	or multiple	seince or math			
		others	1.32063*	.27111	.000
	pre aljebra or	language or	62507*	.22444	.007
	seince or	history			
	math	Computer	71026*	.24913	.006
	Computer	others	1.44286*	.29188	.000
	language or	others	1.35767*	.27111	.000
	history				
Disadvantages	class teacher	language or	.58519*	.22534	.012
field	or multiple	history			
	pre aljebra	language or	.61425*	.23385	.011
	or science or	history			
	math				
Impact of ipad	class teacher	pre aljebra or	.53419*	.19380	.008
using on	or multiple	seince or math			
educational		Computer	.53611*	.20879	.013
attainment		others	.77778*	.23410	.002
	pre aljebra	language or	48974 <sup>*</sup>	.19380	.014
	or science or	history			

math				
Computer	language or	49167 <sup>*</sup>	.20879	.022
	history			
language or	others	.73333*	.23410	.003
history				
other	class teacher or	77778 <sup>*</sup>	.23410	.002
	multiple			
	language or	73333*	.23410	.003
	history			

The above table shows that there are many differences between the teachers' evaluation based on the subjects they teach, but at most the class teachers and the teachers of the history or the languages have higher evaluation compare to the teachers of the science, math and computer at the impact and the advantages of the and lower evaluation at the disadvantages. Which meet the results from (*Bebell and Pedulla*,2015) ". Which showed that slightly stronger literacy performance gains were observed in the iPad settings study. Results from the longitudinal study provide emerging evidence of potential increases in the English Language Art achievement, but no consistent results in math achievement"

# The Sixth Hypothesis:

There is no significant differences at significance level  $\alpha \le 0.05$  at the iPad's advantages, disadvantages and impact on the student's attainments refers to percent of iPad using by the teacher at the lesson.

Table(17):- one way anova -test for comparing the class means:

field		Sum of	df	Mean	F	Sig.
		Squares		Square		
adva	Between	2.103	3	.701	1.297	.284
ntag	Groups					
es	Within	30.259	56	.540		
	Groups					
	Total	32.362	59			
disa	Between	1.417	3	.472	1.127	.346
dvan	Groups					
tage	Within	23.465	56	.419		
S	Groups					

	Total	24.881	59			
imp	Between	2.618	3	.873	2.881	.044
act	Groups					
	Within	16.963	56	.303		
	Groups					
	Total	19.581	59			

From the above table we see that there are no significant differences at the iPad's advantages based on the usage percent of the iPad by the teacher. Therefore the p-value for determining the significance of the difference is 0.284. There is significance difference at the impact on the student's attainment by a P-value of 0.044, and at the iPad's disadvantages by a P-value of 0.346

-For determining the differences and it's directions, the LSD test is used as shown in the following table:

Table(18): Multiple Comparisons by LSD test between the various class's means:

Dependent	(I)	(J)	Mean	Std.	Sig.
Variable	class1	class1	Differenc	Error	
			e (I-J)		
	75%	50%	.44298*	.1938	.026
				5	
		25%	.54825*	.1938	.006
				5	

The above table shows that the teachers who use the iPad during the lesson by percent of (75%) have more evaluation than the teachers who use it by percent of (50%) by .44 degree, with a significance level .026, and more than the teachers who use it by percent of (0.25%) by .54 with a significance level of .006.

#### Results

Based upon the previous discussion and analyses the study have come tothe following results:

1-Major advantage of the iPad over books is its light weight.



- 2- The iPad is time efficient as well as paper efficient.
- 3-The iPad helps with the communications among teachers and students.
- 4-The iPad helps the teachers to follow up with the students'assignments and grading.
- 5- The ipad allows the students to be creative in their writing, presentations, and other tasks.
- 6-Playing games in class, browsing, cheating assignments, coping form on another are some of the disadvantages of the ipad.
- 7-Copy pasting from the internet is also considered a major disadvantage.
- 8-It is believed that being exposed to the iPad for a long period of time may have negative impact on the students' eyes.
- 9-One of the set backs of having an iPad is the electricity cutoff.
- 10- Some areas in Jerusalem and in Bethlehem have poor connection to the WiFi.
- 11-Having access to unlimited internet without restrictions.
- 12-The students' penmanship and handwriting will suffer from lack of exercise and practice.
- 13-Some students will play games during class.
- 13- There are no differences at the disadvantages field refers to the sample characteristics like a gender, age, classes, educational level, percent of using the iPad except the subject that taught by the teacher.
- 14-There is a difference at the advantages in reference to age, educational degree, classes and subject.
- 15-The teachers who from the age category have evaluation more than the other categories and the where there is no differences at the advantages refers to the educational degree, and the classes (9-12) have less evaluation than the other evaluations, where the teachers of languages or history have more evaluation at the iPad advantages.
- 16-The gender has no differences at the advantages, disadvantages nor the iPad's impact.
- 17-The impact of the iPad on the students has evaluated differently, so that the age category (30 36) has more evaluation than the age category (less than 30), and the educational degree (more than MA) have less evaluation. The teachers who teach the language or history subjects have more evaluation, and the teachers who use the iPad by 75% percent at the



lesson have more evaluation, which means that as the teacher uses the iPad more he or she will evaluate the iPad advantages or it's impact more.

### **Recommendations:**

From the previous results we recommend by the following matters:

- 1- Work on ways to improve the school by the iPads utilization.
- 2- Providing professional teachers' training and make sure to keep them updated.
- 3- It is necessary to increase the iPad usage for the subjects English and History.
- 4- It is recommended to expose both genders to the use. Of the iPads.
- 5- It may be necessary to intigradte educational games for students to be more involved to overcome the distraction during class.
- 6- Both the teachers and the parents should get more familiar with the iPad's advantages and it's impact on the student's behaviour and academical benefits.
- 7- Special courses and lectures must be presented to the students with the highlights of its uses, advantages, and the disadvantages.
- 8- Teaches must combine the two methods in teaching the constructive methods and the connectivisim method during the lessons. The main purpose is to concentrate on all the teaching methods.
- 9- Etextbooks should be easily downloaded and used without the student having any difficulties.
- 10- It is very important to maintain a research study over the iPads impact on the students to make sure the system doesn't fall back.
- 11- As some studies recommended "the parents, teachers, school administrators, and government officials to communicate with one another and work together to ensure that technology is used efficiently" (*Al sufi, 2014*). All area of education must be involved in the progress of the iPad usage.



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