THE USE OF EBOOK AS AN INSTRUCTIONAL TOOL: THE ST. PAUL UNIVERSITY PHILIPPINES EXPERIENCE

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ABSTRACT

Technology has changed education and how educators can leverage new educational tools to personalize learning, encourage collaboration, and prepare students for the future. Technology, too, is one of the hallmarks of the 21st century learners. This study would like to document the use of eBook as an instructional tool which includes the knowledge, skills, and attitudes of teachers, parents and students, as well as their practices, problems encountered and suggestions. The quantitative approach, particularly descriptive research design was employed to document the knowledge, skills, attitudes, practices, experiences, views, and suggestions of students, teachers and parents on the utilization of eBooks in the instructional process. In the study, there are three groups of participants: teachers handling Grade 7-10, students from the Science section and parents. Questionnaire as well as interview protocol were used as research instruments. For data analysis, frequency and percentage, mean, ANOVA, and thematic analysis were employed. Results of the study revealed that most of the student-participants are 15 years old and grade 9. Majority of the teacher-participants are female with ages ranging from 21-25, handling grade 9 and taught Mathematics subjects. With regard to parent-participants, majority are female, at age 41 and above, have access to formal education in tertiary level and business owners. Furthermore, the student and teacher-participants' knowledge on the use of eBook are "very high," while that of the parent-participants are "high." On the other hand, all participants have "high" skills and "highly favorable" attitudes on the use of eBooks.

INTRODUCTION

Advancement in technology is inevitable, be it in offices, hospitals, factories, laboratories and schools, among any others. In the school set up, the learning landscape is improved to accommodate technology integration in education. Whether people like it or not, a lot of changes are taking place. Students from secondary and tertiary levels are engaging in the net to follow some blogs, graders using their cell phones, or even kids in the kindergarten, navigating their Ipads by touch. They are today's digital natives. Technology is their world. They are instinctively inclined to use technology as part of their educational process. They are the 21st century learners who are described as innately born collaborators, communicators, critical thinkers, evaluators and a lot more from the list.

This generation's vernacular is the digital word. Therefore, in a manner of speaking, children today are reared to grow up in the digital world. In this context, schools play a special role. However, these are not the same 21st century learners in the first decade of the new millennium. For these students, simply watching videos or images during class, playing an internet multiplication game, or even taking turns at an interactive whiteboard is no longer enough.

These new 21st century learners are highly relational and demand quick access to new knowledge. More than that, they are capable of engaging in learning at a whole new level. In order for the teaching-learning process to be more effective, the school necessitates itself to provide a conducive teaching-learning environment for the learners. Knowing the environment will give the idea of a 21st century classroom landscape, a place that creates a life-like situation that enhances learning. It allows equitable access to quality learning tools, technologies and resources.

The adoption of iPads in the teaching-learning process enhances student engagement. The students exhibit better performance because of the highly visual and multimedia content that the eBooks provide them. The use of eBooks boosts the learning process not only of students but also the teaching process. It offers advantages like portability, 24-hour access, text search, annotation, linking, and

multimedia and self publishing possibilities.

However, despite its wide acceptance, many schools are still wary about its use thinking that students' attention might be diverted from studies due to many built-in applications in the iPad. In the Philippines, it was only recently that private schools began adopting its use. From the simple and yet perennial problem of the students who were experiencing carrying heavy bags and the goal to improve the quality of education, the need to digitized the printed books was greatly felt. The La Salle Green Hills in Mandaluyong City has pioneered the use of electronic tablets (e-tablets) to selected students to lessen their burden in carrying books in 2011. Students do not hunch their backs from carrying heavy backpacks, teachers do not deal with mountains of test papers for checking, and class reports are not painstakingly handwritten on Manila paper and taped on the board for the class to see.

In the school year 2015-2016, St. Paul University Philippines joined the bandwagon of using technology in the science sections of the Basic Education Unit. It is through the initiative of the administration after its consultation and recommendations from stakeholders namely the eBook providers, officers of the Parents' Council, some teachers and students that the use of eBooks be adopted. Since this has just not been long enough implemented in the school, this study would like to document the use of eBook as an instructional tool which includes the knowledge, skills, and attitudes of teachers, parents and students, as well as their practices, problems encountered and suggestions.

Statement of the Problem

This study aimed to document the knowledge, skills, attitudes, practices, experiences, views, and suggestions of students, teachers and parents on the utilization of eBooks in the instructional process. The results of which shall serve as basis for improving the implementation of the use of eBooks on instruction.

More specifically, the study sought answers to the following:

1. What is the profile of the student-participants in terms of:
      1.1 gender;
      1.2 age, and
      1.3 grade level?

2. What is the profile of the teacher-participants in terms of:
      2.1 gender;
      2.2 age;
      2.3 grade level handled, and
      2.4 subject taught?

3. What is the profile of the parent-participants in terms of:
      3.1 age;
      3.2 gender;
      3.3 educational attainment, and
      3.4 occupation?

4. What is the level of knowledge, skills and attitudes of the three groups of participants particularly on eBook and its use?

5. Is there a significant difference on the knowledge, skills and attitudes of the different groups of participants on the utilization of eBooks in the instructional process?

6. What are the participants' experiences and views on the use of eBooks in the classroom?

7. What do the participants suggest to hasten the implementation of the use of eBooks?

8. What plan of action can be implemented to intensify the implementation of the use of eBooks for classroom instruction?

METHODOLOGY

Research Design

      The researcher used the quantitative approach utilizing the descriptive research design since the research described the

knowledge, skills and attitudes of the participants, as well as their experiences, views and suggestions on the utilization of eBooks in the instructional process. This method also gives opportunity to draw inferences on the implications on the use of eBook among the Junior high school students of St. Paul University Philippines.

Participants of the Study

The study covered three groups of participants as sources of data, particularly, the teachers of St. Paul University Philippines handling Grade 7 to Grade 10, the students from the Science sections who are using the eBook, and their respective parents for Academic Year 2016-2017.

Instrumentation

This study used the questionnaire method to gather information on the knowledge, skills, and attitudes of participants, as well as their experiences, views and suggestions on the utilization of eBooks in the instructional process.

The researcher developed a questionnaire for the three sets of participants to gather the needed data. The said questionnaire was validated by the eBook developer, as well as one teacher and one research expert who undertook reliability testing before its administration to the participants. Reliability testing used the test-retest method to non-participants (12 students and their parents, and 10 teachers). There was a one-week gap for the pilot testing given to the non-participants. The test-retest answers were subjected to reliability analysis ($r = 0.80$). The items with low reliability were further refined. The survey questionnaire was divided into three parts. The first part includes the participants' profile. The second part deals with parallel items that measure the knowledge, skills and attitudes of each group of participants. The third part deals with open-ended questions that ask about the participants' experiences, views and suggestions that would enhance the utilization of eBooks in the classroom.

An interview protocol was utilized to substantiate the information obtained from the survey questionnaire.

Data Gathering Procedures

In gathering the data for this study, the researcher undertook the following:

First, she sought permission from the Principal of the school to conduct a survey to the teachers, to the students from the Science sections of Grade 7 to Grade 10, who are using eBooks, and their respective parents.

Second, she sought for informed consent from the teachers and parent-participants. Parental consent, as well as students' assent, was also sought.

Third, the researcher administered personally the questionnaire. In-depth personal interview was conducted to participants to obtain and validate information obtained from their written responses.

Fourth, the information gathered were subjected to data treatment.

Data Analysis

The quantitative data were organized, analyzed and interpreted using the following statistical tools:

Frequency Count and Percentage. These were used to interpret the profile of the three groups of participants.
Mean. This was used to describe the knowledge, skills and attitudes of the participants on the utilization of eBooks in the instructional process.

The participants' knowledge, skills and attitudes were interpreted using the following scale:

Scale Range	Knowledge, Skills, Attitudes
4.20 - 5.00	Very High/ Very Highly Favorable
3.40 - 4.19	High/ Highly Favorable

2.60 - 3.39	Moderate/ Moderately Favorable
1.80 - 2.59	Low/ Less Favorable
1.00 - 1.79	Very Low/ Unfavorable

Analysis of Variance (ANOVA). This was used to test for significant difference on the knowledge, skills and attitudes of the different groups of participants.

Thematic Analysis. This was used to organize the qualitative responses obtained from the last part of the questionnaire and the interview, as well as the experiences, views and suggestions of the participants on the use of eBooks in the instructional process. The common themes were tabulated and further ranked according to the obtained frequencies.

RESULTS AND DISCUSSION

Profile of the Student-Participants

Gender: Majority (70.16%) of the participants are female.

Age: Students' ages range from 12 to 17 years and most (28.27%) of them are 15 years old. The students' mean age is 14.45.

Grade Level: Most (28.80%) of the participants belong to Grade 9 and the least number of participants come from Grade 10.

Profile of the Teacher-Participants

Gender: Majority (68%) of the participants are female.

Age: Most (28.00%) of the teacher participants have ages ranging from 21-25 years. The mean age of the teacher-participants is 33.

Grade Level Handled: There are more teacher participants (48.00%) who are handling Grade 9 subjects.

Subject Taught: The most commonly taught subjects by the

participants are Mathematics (17.86%) and Science (17.86%) followed by the English subject (14.30%).

Profile of the Parent-Participants

Gender: Majority (52%) of the participants are female.

Age: Most (31.41%) of the parent-participants' age are 41 years old and above.

Educational Attainment: Most (40.31%) of the parent-participants had an access to formal education in the tertiary level.

Occupation: Most of the parent-participants are engaged in business particularly, as owners of business enterprises or are self-employed.

Participants' Knowledge, Skills and Attitudes on eBook and Its Use

Knowledge

Both student-participants and teacher-participants have a "very high" knowledge with an overall mean of 4.66 and 4.31, respectively on the use of eBooks while the parent-participants have "high" knowledge with an overall mean of 3.81.

Skills

All participants have "high" skills on the use of eBooks with an overall mean of 4.13 (students), 3.70 (teachers) and 3.29 (parents).

Attitudes

All participants have "highly favorable" attitude on the use of eBooks with an overall mean of 3.63 (students), 3.53 (teachers) and 3.97 (parents).

Test for Significant Difference on Knowledge, Skills and Attitudes of the Different Groups of Participants on the Utilization of eBooks in the Instructional Process

There is a significant difference on the knowledge, skills and attitudes of the three groups of participants on the utilization of eBooks in the instruction process.

Participants' Experiences and Views on the Use of eBooks in the Classroom

Extent of eBooks' Use

The extent of eBook use is "moderate" with an overall mean of 2.70 for all participants.

Degree of Satisfaction Derived from the Use of eBook

Both teacher-participants and parent-participants have "moderate" degree of satisfaction derived from the use of eBooks with mean scores of 2.76 and 2.75, respectively, while student-participants have "low" degree of satisfaction with mean score of 2.57.

Level of Importance of eBook Features (with 1 as the Highest and 7 as the Lowest)

"Search and cross reference functions" are the features rated most important by the students and parents while "interactive tools" by the teachers.

How eBook is Utilized in the Classroom

The students and the parents agreed that they use eBooks primarily to research/learn new information or skills. The teachers, on the other hand, use eBooks primarily as reference for collaborative activities in the classroom. The participants have also been allowed to provide other uses of the eBooks in the classroom, stating that they use eBooks to air drop and pass data and images; to use and

project illustrations and presentations and other innovative learning application; to serve as teaser exercises and other motivational activities; to make research available, and browse for topics; to intensify learning; to enrich group activity and make materials handy and practical; to use for assessment of learning; to apply other strategies in the teaching-learning process (innovation); to develop higher-order-thinking skills, and to enhance the students' vocabulary.

Problems Encountered on the Utilization of eBooks

The students and the teachers' major concern is the "crashing and lagging" of the application they use for the eBooks; however, the parents find the temptation presented by the games in the iPad as their major problem that distracts them from focusing solely on the material. It is also relatively notable to consider the succeeding responses of the participants on some other concerns posed by the use of eBooks in the classroom where the students also find the loss of valuable time in fixing technical troubles, as well as the eye-straining effect of the digital material is problematic.

Similarly, the other problem cited by the participants is the difficulty in finding the lesson, which may be caused by the wrong pagination. They also included the eBooks features' inconsistencies (highlights are missing, book marks are confusing, annotations cannot be found at times) that lead to time-consuming loading processes, as well as the browsing of pages, such as lagging and crashing. They also mentioned the distractions caused by some apps; moreover, they are concerned with the high probability of lost and damaged iPad, the lack of storage space, the low battery issues of the device, and the lack of space in the armchair to accommodate their iPad and their notebook.

How does eBook help make learning better?

The participants have a common opinion that eBooks develop their knowledge and skills on media technology, particularly, on the use of the device itself.

As per their suggestions, the participants enumerated that eBooks help them by making learning fun and creative and providing access to information. EBooks also make them technology-savvy (KSA), and enhance collaborative learning. The participants also stated that eBooks aid in the retention of memory and encourage multi-tasking, allow them to use varied teaching-learning strategies, make it easy to prepare presentations by the portability of the device, which lead them to obtain improved academic ratings.

Participants' Suggestions to Hasten the Implementation of the eBooks in the Instructional Process

The students and the parents suggest that a solution should be sought regarding the crashing and lagging of the device. The teachers, meanwhile, suggest that there should be a regular monitoring by the teachers on the apps used by their students.

There are a considerable number of students and parents who agree to focus on the same concern cited by the teachers.

Overall, almost all of the participants have arrived at a suggestion to address all the concerns presented in the study concerning the utilization of eBooks in the instructional process.

Plan of Action to Intensify the Implementation on the Use of eBooks for Classroom Instruction

The proposed Plan of Action sought to address some pressing problems on the utilization of eBook in the instructional process.

CONCLUSION

Based on the results of this study, the following conclusions were drawn:

The student and teacher-participants have "very high knowledge" while parent-participants have "high knowledge" on the use of eBooks. This indicates that they are familiar with, aware and understand how technological tools are utilized and applied in the instructional process.

The participants have "high" skills on the use of eBooks which signify that they have the ability to maximize and strategize the use and feature of the technology and make meaningful learning out of it.

The participants have "high" favorable attitudes on the use of eBooks which denote that they have been exposed to digital technology and have been using it in school, at home or at the workplace. The "moderate" satisfaction of teachers and parents and the "low" satisfaction of students on the use of eBooks in the instructional process maybe the result of their unpleasant experiences (e.g. frequent technical problems, time consuming in browsing, etc.) especially, during class hours. EBooks in class are applied according to their intent for instruction (e.g. as reference material, for research, assessment, collaborative activities, etc.). Considering the importance of the device (iPad) and its application (eBook) in the instructional process, problems encountered on its use need to be addressed for a more effective and efficient use of the tool.

RECOMMENDATIONS

Based on the findings and conclusions made, the researcher recommends the following:

The Principal needs to coordinate with the eBook developers for the troubleshooting of problems especially on the following:

Pagination. Developers of eBooks may create a program that would not affect the placement of pages even if the users adjust their font size and style.

Lagging and Crashing Issues. The provider of eBooks may consider visiting and studying first the infrastructure of schools before the actual implementation. The device, maybe, at least 8.1 version, with an IOS (Apple) operating system (OS).

For the continuous utilization, users must update the eBook or the learning management system (LMS) and they may refrain from downloading unnecessary apps that could consume storage capacity. The different versions of eBooks (PDF, flat and interactive)

need also to be checked if they are compatible with the platform used.

The teachers need to periodically monitor the iPads of the students to prevent installation of unnecessary applications that could consume storage space. Random checking may be applied.

The researcher may consider presenting the results of the study and the proposed action plan to the Principal to improve eBook utilization in the Basic Education Unit.
a. Continuous collaboration with the eBook developers;
b. Orientation and training of students, teachers and even of parents;
c. Training of eBook specialists; and
d. Enhancing the ICT infrastructure of the school.

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