

## The Effectiveness of Blended Method with Quipper in the Teaching of T.L.E. – ICT to Grade 9 Students

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**Abstract:** *The study was used to determine the effectiveness of Blended Method by using the Quipper Application in teaching ICT subjects. Blended learning refers to learning models that combine traditional classroom practice together with e-learning solutions. Quipper Philippines has partnered with the Department of Education in order to provide teachers with a platform where they can access a content library and to be able to send ready-made lessons, quizzes, exams and to provide real-time data on student performance.*

*The study determined the performance of Grade 9 ICT students in the administration of the pre-test and post-test for both controlled and uncontrolled groups. The study also determined if there is a significant difference in the result of the performance for both controlled and uncontrolled groups in the pre-test and post-test. An action plan was proposed in the implementation of the Quipper Application as an instructional tool in T.L.E. 9 – ICT.*

*The independent variables used was the pretest and posttest on topics for the second quarter of the school year administered to both the class under the traditional method of teaching and those where blended method is incorporated.*

*This study utilized the purposive sampling method. Two grade 9 sections were used, one to be the control group and the other as the uncontrolled group. The dependent variables were the performance result of the post-tests of both the traditional class and the class where blended method using Quipper was administered. The result was then determined whether the traditional method of teaching can stay as is and be used by teachers in delivering their lessons or if technology will have an effect in it, thus an action plan will be developed. The weighted mean and t-test was the statistical treatment used to answer the sub problems.*

*The use of Blended Method by using Quipper Application is indeed an effective tool to be used in teaching T.L.E. - ICT for grade 9 students. Their performance and scores in the pre-test and post-test had greatly improved using Blended Method.*

**Keywords:** *Blended Method, Quipper School Application, e-Learning Teaching Tools. Innovative Learning*

## INTRODUCTION

In this era when technological advancements are inevitable, learners acquire information and learn new things on their own through online and through the use of other advanced technologies.

In the classroom setting, many are now shifting to blended learning. Blended learning is a model combining traditional classroom practice with e-learning solutions [12]-[13]. Blended learning, when used effectively, can lead to successful acquisition of knowledge since it caters to the learning styles and needs of the present generation of learners.

According to the latest data, video for homework is on the rise; mobile computing is "beyond the tipping point"; and most kids do not use traditional computers to connect to the Internet at home. Those are just three of the major trends revealed in the 2013 Speak Up Survey from Project Tomorrow, which CEO Julie Evans revealed at the FETC 2014 conference. [1] Educators as catalysts for social transformations are entrusted to be more responsive to students' needs in the complex, technological society of today [10].

Sixty percent of students are using mobile devices for anytime research, 43 percent for educational games and 40 percent for collaboration with their peers. Thirty-three percent of students surveyed use mobile devices for reminders and alerts related to their academic lives, 24 percent for taking photos of their assignments, and 18 percent for in-class polling. [2]

The concept of blended method of teaching is rooted in the idea that learning is not just a one-time event – learning is a continuous process. Blended method of teaching [3] addresses more style requirements, a wider audience, and increased performance or learning results.

Blended teaching, where students' face-to-face education is combined with internet resources or online courses, has been gaining considerable attention in education reform circles. Michael Horn, co-founder of the Clayton Christensen Institute for Disruptive Innovation, and a key proponent of blended teaching, claims that it is the "new model that is student-centric, highly personalized for each learner, and more productive as it delivers dramatically better results at the same or lower cost" [4]

Former President Benigno Aquino II, on the other hand, announced during the launching of RA 10533 or the K to12 Enhanced Basic Education Curriculum that the government eyes the use of tablet computers in public schools in lieu of traditional textbooks (Enterprise Innovation, 2012). Furthermore, there exist various programs by the government and non-government organizations and private corporations in the Philippines that aims to provide one laptop computer per child. Laptops in the classroom would ensure the engagement of students to school-related activities. [5]

Prior to the partnership with DepEd Central Office, Quipper had established official partnerships with 33 DepEd divisions to provide its services to 300 plus public schools under their jurisdictions. Quipper has 200,000 plus monthly active users. [6]

The researcher believes that through the use of blended learning, students would have more chance and opportunities of learning even when they are at home. During rainy season, classes are suspended due to flood. This has always been the problem of the city, the cause is not just due to heavy rainfall, even at times when there is high tide, flood starts to haunt the city. [7] Potentially, the students can still learn even when they are at home because according to a certain study [8] the students have a high level of acquisition of information literacy competency particularly which is determining the nature and extent of the information needed.

Last year alone there had been a lot of class suspension in the Department of Education in all levels in Dagupan City due to floods. Teachers and students are having a hard time coping up with their lessons. Because of all of these class suspensions, students interest tends to degrade, resulting in the decline of their performance and a decline in their grades at school. Students' grades are greatly affected. In order to bridge this gap, the researcher believes that there is a need for something to overcome the geographical and natural restraints caused by floods, this virtual bridge is the e-learning. Through the use of the internet teachers can still deliver their lessons anywhere. A study [9] also revealed that in Pangasinan, there is also a high level of perceived knowledge and skills of the teachers of the innovative instructional activities.

### **OBJECTIVES OF THE STUDY**

This study aims to evaluate the Effectiveness of Blended Method with Quipper in the Teaching of T.L.E. – ICT to Grade 9 Students.

Specifically, it seeks to achieve the following objectives:

1. To be able to know the performance of the T.L.E. Grade 9 ICT students (control and experimental) in the administration of pre-test.
2. To be able to identify the performance of the T.L.E. Grade 9 ICT students (control and experimental) in the administration of post-test.
3. To be able to know if there is a significant difference in the performance of the T.L.E. Grade 9 ICT students who received instruction using blended learning with Quipper from those that were taught using traditional lecture method.

### **MATERIALS AND METHODS**

The focal objective of this study is to determine the effectiveness of Blended Method with Quipper in teaching T.L.E. – ICT to Grade 9 Students.

The subjects will be the Grade 9 T.L.E. students with the ICT specialization of the regular class. They were from two heterosection classes. (since Grade 9 T.L.E. students choose

their specializations either cookery, bread and pastry, front office services, beauty care or ICT) One class is the experimental group, which will be composed of 50 respondents and the students will be instructed using Quipper School. The other class which is the control group, will be composed of another 50 respondents and will be exposed to traditional lecture method. Several topics for the second quarter shall be covered using the Quipper School App.

The population of this study will be composed of 100 students or (2) two classes for grade 9 students taking up ICT specialization as their T.L.E. (1) One class will be assigned to the blended method group, while another class will be under the traditional group. Purposive sampling was utilized since the subjects were not randomly picked but were chosen as a class. The classes are heterogeneous considering that grade 9 students from different sections were choosing their T.L.E. specializations.

The researcher will use the blended method in the experimental group and the traditional lecture method in the control group to determine if there exist difference in the subjects' performance. The researcher will be using the Quipper School App as instructional material for the ICT lessons in the second quarter.

The data to be gathered will be analyzed, interpreted and evaluated accordingly, using appropriate statistical tools.

To answer sub-problems 1 and 2, which aim to determine the performance of the students who will go through traditional method and the blended method, the mean score of the students' pretest will be acquired. The average mean will be solved by adding all the scores of the students in the pretest per lesson and divided by the number of students who took the test. After which the mean percentage score (MPS) will be acquired.

To answer sub-problem number 3, the t-test will be used in the independent samples to get the significant difference between the academic performance of Grade 9 ICT students who will be exposed to the traditional method of teaching and those using the blended method with Quipper.

**RESULTS AND DISCUSSION**

This section answers the problems: “What is the performance of the T.L.E. Grade 9 ICT students (control and experimental) in the administration of pre-test?”, “What is the performance of the T.L.E. Grade 9 ICT students (control and experimental) in the administration of post-test?” and “Is there a significant difference in the performance of the T.L.E. Grade 9 ICT students who received instruction using blended learning with Quipper from those that were taught using traditional lecture method?”

It will be recalled that, in this study, performance of the students refers to the post-test or achievement test given after the instruction using blended with Quipper in the T.L.E. 9 – ICT and using traditional lecture method.

The following tables and figures summarized the performance of the students.

Table 1. Performance of the Traditional Lecture Method (Control Group)

| PRE-TEST MEAN | POST-TEST MEAN |
|---------------|----------------|
| 4.76          | 33.44          |

It can be seen in table 1 that the control group had an average of 4.76 in the pre-test and 33.44 in the post-test, respectively. It can be observed that there was an increase of 28.68 in the mean, from pre-test to post-test.

The following table presents the performance of the students in the experimental group using blended method with Quipper.

Table 2. Performance of the Blended Method with Quipper (Experimental Group)

| PRE-TEST MEAN | POST-TEST MEAN |
|---------------|----------------|
| 4.32          | 40.08          |

Table 2 presents the performance of the students taught using blended method using Quipper with a mean of 4.32 in the pre-test and 40.08 in the post-test, respectively. It can be observed that there is a mead difference of 35.76.

The following table presents the difference between the performance of the students who received instruction using blended method with Quipper in T.L.E. 9 – ICT from those who were taught using traditional lecture method.

Table 3. Comparison between the Experimental and Control Group’s Average Post-test’s Score

|            | N | MEA<br>N | S<br>D | tcom  | ttab  |
|------------|---|----------|--------|-------|-------|
| SUMMATIVE  |   |          |        |       |       |
| EXPERIMENT | 5 | 40.08    | 7.5    |       |       |
| AL         | 0 |          | 6      |       |       |
| CONTROL    | 5 | 33.44    | 6.7    | 4.623 | 1.984 |
|            | 0 |          | 8      | 6     | 5     |

(df = 98;  $\alpha = 0.05$ )

Looking at the foregoing table, the Experimental Group and the Control Group obtained means of 40.08 and 33.44, respectively. The t-value computed for these data is 4.6236. Compared to the tabular value of 1.9845 with degrees of freedom of 98 at 0.05 alpha level, it can be observed that the computed t-value is greater than the tabular value. Therefore, the null hypothesis, “There is no significant difference in the performance of the T.L.E. Grade 9 ICT students who received instruction using blended learning with Quipper from those that were taught using traditional lecture method,” is rejected, in favor of the alternative hypothesis.

Periodic evaluation and/or further validation of the proposed [11] learning modality may be instituted to further provide strengths on the blended learning of the teachers.

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