

Mentoring Towards Information Communication and Technology in Utilizing Electronic Media for Bachelor of Teaching Livelihood Education Students in Eastern Visayas State University



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ABSTRACT: The study aimed to determine the effects of mentoring towards Information Communication Technology (ICT) integration process in teaching Trainer's Methodology I in Facilitating Learning, specifically on competency-based learning materials on Utilizing Electronic Media in Facilitating Learning. In this process, interaction among the mentors and the mentees are encouraged to improve their work-based practice. The quasi-experimental design used specifically the pretest-posttest method. The module and pre-posttest exam used in this study constructed by the researchers. The mentees' participation had determined, and modifications in teachers ICT' integration indicators have analyzed. Observation and result of pre-test and post-test data described for skill and proficiency level of the mentees before and end of peer mentoring activity. The results indicated that the mentees in the experimental group show a noticeable improvement in their scores from pretest to posttest. The respondents compared to the controlled group which there is no significant difference between the pretest mean scores in ICT mentoring among Bachelor in Teaching Livelihood Education (BTLEd) students in the experimental groups. A significant result between the posttest means scores in ICT mentoring among BTLEd students in the experimental and control group and finally, using the mentoring approach in ICT to BTLEd students is more effective than using the traditional methods of teaching the same lesson.

KEYWORDS: Computer-Mediated Teaching, Mentoring, Electronic Media

INTRODUCTION

The Philippines Educational System is delivering education by protecting and promoting the rights of every Filipino. This advent will promote quality, equitable, culture-based, and complete basic education. The school finds itself duty-bound and deliberate in finding everything within its level best that sets standards and integrative approaches to uplifting teachers' educational practices. In connection with the school's aim of providing access to quality education through shared governance with its stakeholders. Hence, the school and teaching personnel have "digital divide" experience of the most viable technological reforms in education, the use of ICT. The impact of digital education is to make the learning process relevant in acquiring technological advancement of the individual [1]. It provides a focus on improving the students' ICT skills and proficiency through mentoring in the key subjects in general education, professional and major related subjects. Mentoring has to determine the efforts to raise rates of student retention and to promote educational achievement. Moreover, the impact of mentoring ICT in teaching and learning process contributes learners more actively in the educational process [2]. Macasaet [3] in his report cited the numbers of articles, studies, and works of various authors for articulating the use of technology in education. According to Mercado Jr., [4] mentioned the modification of technology curriculum in recent years encountered more challenges in the area of ICT. It involved promoting distinct technologies in facilitating learning and determining the impact on the learning motivation to the learner. Moreover, Ongoz, [5] examined the utilization of ICT in e-mentoring, among those are multimedia applications and preferred ICT tools. It reveals that media applications in terms of online documents and storage are utilized to provide interaction in the e-mentoring activity. Besides, most of the respondents encounter ICT programs more convenient for classroom demonstration activity. However, some respondents mentioned that direct experience must be considered in the ICT mentoring activity. According to a study conducted by Project Tomorrow [6], having access to the internet, students would be able to research

Mentoring Towards Information Communication and Technology in Utilizing Electronic Media for Bachelor of Teaching Livelihood Education Students in Eastern Visayas State University

information and access online textbooks, which in turn can help the students perform better inside the classroom. Furthermore, through the use of computers and the internet, students would be able to communicate and collaborate with classmates for school work. Steele, A., Snell, S. and Snell-Siddle, C. [7] asserts that the most significant aspect of the student mentoring program is to provide a mechanism to track and measure the effectiveness of mentoring. Students and teachers can establish interactive communication with anybody or any source, making learning more relevant to their lives' interests and concerns. The College of Education (EVSU) is offering a new program for Bachelor Teaching of Livelihood Education (BTLEd). The subject offered is on Facilitating Learner-Centered Approaches with Emphasis on Trainer's Methodology I. On this context, it introduces one of the learning competencies in Utilizing Electronic Media thru computer and Internet technologies, which student can have access to available information more quickly and accurately. The electronic system in utilizing hardware and application provides an advantage to teachers and students in dealing with social and academic learning. For them, it provides beneficial interest and compiled platforms for conveying information since they motivate learners to want to learn effectively and efficiently. Hence, the school advocated and aligning for staff development on the principles spelled out in the National Competency-Based Teacher Standard- Teachers Strengths and Needs Assessment (NCBTS-TSNA). All concern for improvements criteria for teachers' academic advancement is hinged towards professional development needs towards stipulated staff development plans. The modern classroom today needs new teaching strategies and modern technology devices in delivering classroom interaction. Based on the implementation of ICT school-based curriculum, the learning environment can take advantage of the basic competencies for actual learning. Thus, a plan to embrace technology teaching to support the models of teaching that emphasize learning with understanding and more active involvement is inevitable. The issue when to use technology, what technology to use, and for what purpose are isolating from theories of teaching and learning that support learning with understanding. The present study seeks to evaluate this student-mentoring activity of teachers in ICT classroom discussion. The characteristics of learning partnerships in the process-oriented models of mentoring may provide the knowledge to underpin a mentoring activity for teachers where the mentor student poses advanced skills on ICT compared to mentees participants. This study anticipated providing a concrete idea and strategy on productive mentoring activity, where learners act as mentors to help teachers be more effective and proficient with ICT. A review of the efficiency of the ICT mentoring activity will take place to identify recommendations to improve the quality of the outcome.

Objectives of the Study

The study operates and anchored upon the following objectives:

1. Find the pretest and posttest mean scores in mentoring ICT according to media hardware and media application of the BTLEd of Eastern Visayas State University in the control and experimental groups, SY 2023-2024.
2. Determine whether there is a significant difference between the pretest mean scores in mentoring ICT according to media hardware and media application of the BTLEd of Eastern Visayas State University in the control and experimental groups, SY 2023-2024.
3. Determine whether there is a significant difference between the posttest mean scores in mentoring ICT according to media hardware and media application of the BTLEd of Eastern Visayas State University in the control and experimental groups, SY 2023-2024.
4. Determine the effectiveness of mentoring in enhancing the basic ICT media hardware and media application of the BTLEd of Eastern Visayas State University in the experimental groups, SY 2023-2024.

The hypothesis of the Study

The following Hull hypothesis is advanced:

H₀: There is no significant difference between the pretest mean scores in mentoring ICT according to media hardware and media application of the BTLEd of Eastern Visayas State University in the control and experimental groups, SY 2023-2024..

H₁: There is no significant difference between the posttest mean scores in mentoring ICT according to media hardware and media application of the BTLEd of Eastern Visayas State University in the control and experimental groups, SY 2023-2024.

METHODOLOGY

The study engaged the quasi-experimental design, categorically the pretest-posttest method that allowed the researchers to find out whether there is a significant difference in the students mentoring process according to necessary ICT media hardware and media application before and after the hands-on administered. The posttest result was treated as the dependent variable in the experimental group and also the effect of mentoring ICT in the class. The BTLEd 1-A and B class in the College of Education taking Facilitating Learner-Centered Approaches with Emphasis on Trainer's Methodology I are respondent

Mentoring Towards Information Communication and Technology in Utilizing Electronic Media for Bachelor of Teaching Livelihood Education Students in Eastern Visayas State University

of this study. These two sections were assigned to the control group and experimental respondents. A purposive method of sampling utilized in this study. Four classes are taking this subject, only BTLEd 1-A and BTLEd 1-B selected. The respondents are chosen through homogenous pairing employing their National Certificate (NC) acquired. Those students earned NC paired and assigned to the controlled group while the others were placed in the experimental group. These respondents have NC 1 designated as a mentor in the study. Both the control and experimental group are composed of two classes in which fifteen of the respondents in every category have respondents of this study — thirty students assigned to the control group, another thirty respondents in the experimental groups. A total of sixty (60) respondents participated in this study. The pretest administered to both the control group and experimental groups of the study respondents in the second semester for the school year 2023-2024. After the administration of the pretest, the respondent in the experimental group undergoes instruction using a mentoring approach to enhance their basic ICT skills and proficiency in terms of electronic media. The control group taught using the ordinary lecture method of teaching. After eight sessions of treatment, posttest administered to both groups of respondents. To obtain the pretest and posttest result of every respondent the mean value is calculated. The t-test paired sample for pretest and posttest mean scores utilized for both controlled and experimental groups with the test set at .05 level of significance. The effectiveness of mentoring in ICT is taken from pretest to posttest in both the experimental and controlled groups and calculated by subtracting the students' scores in pretest from their scores in the posttest and getting the mean of their difference.

RESULTS

Pre-Test and Post Test Mean Scores

The table 1 below shows the pre-test mean scores of 34.10 of the respondents in the experimental group is almost equal with that of the pre-test with 33.23 means scores in the controlled group. Meaning, the prior knowledge of both groups of respondents before treatment conducted was almost the same.

Table 1. Pre-test means scores in mentoring ICT for the experimental and controlled group

Groups Mean Scores	Means Scores
Experimental Group	34.10
Controlled Group	33.23

Table 2 shows that the posttest means scores of the respondents in the experimental group increased significantly compared to the posttest means scores of the respondents in the controlled group which only shows a very slim increase.

Table 2. Posttest means scores in mentoring ICT for the experimental and controlled group.

Groups Mean Scores	Means Scores
Experimental Group	45.45
Controlled Group	35.58

Difference between the Pretest Mean Scores

The table 3 shows that the p-value of 0.34276 is more significant than 0.05 level of significance. The hypothesis which states that there is no significant difference between the pretest mean scores of both groups of respondents is then accepted. This result implies that the prior knowledge of the learners of both groups on sentence construction is almost the same. Thus, there is no significant difference between the pretest mean scores in English sentences according to structure among the Grade 9 learners in the experimental and controlled groups.

Table 3. The significant difference between the pretest means scores in mentoring ICT for the experimental and controlled group.

Pair 1	Mean of Pretest Scores	t value	p value (2-tailed)	Decision	Interpretation
Experimental Group	34.10	-0.996	0.34276	Accept null hypothesis	Not significant
Controlled Group	33.23				

Mentoring Towards Information Communication and Technology in Utilizing Electronic Media for Bachelor of Teaching Livelihood Education Students in Eastern Visayas State University

Difference between Post-Test Mean Scores

Table 4 below shows that the p-value of 0.0001 is less than 0.05 level of significance. The hypothesis which states that there is no significant difference between the posttest mean scores, is then rejected. This result suggests that both groups show improvement differs significantly. The experimental groups manifest a very noticeable increase in mean scores, while the controlled group shows a very minimal gain. They conclude that there is a significant difference between the posttest mean scores in English according to structure among Grade 9 learners in the experimental and controlled group.

Table 4. The significant difference between the posttest means scores in mentoring ICT for the experimental and controlled group.

Pair 1	Mean of Pretest Scores	t value	p value (2-tailed)	Decision	Interpretation
Experimental Group	45.45	8.8434	0.00001	Reject null hypothesis	Significant
Controlled Group	35.58				

The Effectiveness of Mentoring in Enhancing Basic ICT Skill and Proficiency

The table below shows that the students in the experimental group gained a mean of 11.35 as compared to the students in the controlled group which had only 2.35 low gain. Thus, using the modular approach in teaching English sentences according to the structure to Grade 9 learners is far more effective than using the conventional method of preparing the same lesson.

Table 5. The effectiveness of mentoring in enhancing basic ICT skills and proficiency as measured of they are learning in both the experimental and controlled groups.

Groups Mean Scores	Means Scores
Experimental Group	11.35
Controlled Group	2.35

Table 6 shows that the p-value of 0.00001 is less than 0.05 level of significance on their gain in scores. The hypothesis which states that there is no significant difference between the posttest mean scores, is then rejected. Thus, there is a significant difference in scores between the experimental and controlled group. It concluded that the modular approach in teaching English sentences according to the structure to Grade 9 learners is far more effective than using the conventional method of teaching.

Table 6. The result of the paired samples of T-test to determine the effectiveness of mentoring in enhancing necessary ICT skill and proficiency in terms of gain scores

Pair 1	Mean of Pretest Scores	t value	p value (2-tailed)	Decision	Interpretation
Experimental Group	11.35	8.7915	0.00001	Reject null hypothesis	Significant
Controlled Group	2.38				

DISCUSSIONS

This study employed the quasi-experimental design; specifically, the pretest-posttest method which allowed the researchers to determine whether there is a significant difference in the respondent ICT mentoring according to the skills and proficiency before and after tutoring has administered. Moving on to results of research question one, the pretest means a score of the respondents in the experimental group has very slim difference from the mean scores of the respondents in the control group, which can conclude that their skill and knowledge in ICT mentoring for electronic media, prior to the treatment are almost the same. It is, therefore, correct in the study by Mercado Jr., [4] that respondents have the same perception of their familiarity to media hardware available in the classroom. However, on the posttest mean scores of the same respondents show a big difference. Indicating, the students in the experimental group show a noticeable improvement in their scores from pretest to posttest, as compared to the students in the controlled group. Ingham [8] disclosed in her study, after mentoring activity done by

Mentoring Towards Information Communication and Technology in Utilizing Electronic Media for Bachelor of Teaching Livelihood Education Students in Eastern Visayas State University

the teachers in their ICT professional capability had improved. On the difference between the pretest mean scores, reveals the p-value of 0.282 is greater than 0, 05 levels of significance for the pretest mean scores. The hypothesis states that there is no significant difference between the pretest mean scores of both groups of respondents, and is then rejected. Thus, there is no significant difference between the pretest mean scores in mentoring ICT according to media hardware and media application of the BTLEd of Eastern Visayas State University in the control and experimental groups. Therefore, this finding is parallel to the results of the studies of Mercado Jr., [4] show that respondents are slightly familiar with a software application which statistically has no significant effect. So, it is clear that according to Ongoz [5], e-mentoring is entirely flexible. It means that individuals exposed to mentoring were in a stagnant mediocrity which causes the teachers to fail in imparting the standard skills that the learners should master at a particular stage of learning. On the difference between posttest mean scores, show the p-value of 0.000 is less than 0.05 level of significance for the posttest mean scores. The hypothesis which states that there is no significant difference between posttest mean score, is therefore rejected. The result, therefore, concluded that there is a considerable difference between the posttest means ratings in mentoring ICT according to media hardware and application of the BTLEd students of Eastern Visayas State University in the control and experimental group. The study of Ongoz [5] after e-mentoring to the respondents the preferred, various technologies offered. The respondents for the experimental group gained a mean of 11.35 as compared to the students for the controlled group which has only 2.35 low gain. Thus, using a mentoring approach in teaching the ICT for BTLEd students is more effective than using the lecture method of training in the same lesson. Ongoz [5] reported in her study that the majority of the respondents in the e-mentoring program are sufficient in interaction.

CONCLUSIONS

Based on the result, the following conclusions were drawn:

1. The pretest means scores of the respondents in the experimental group have a very slim difference from that of the mean scores of the respondents in the controlled group, which can conclude that their knowledge on ICT mentoring according to electronic media utilization, before the treatment, is almost the same. However, the posttest means scores of the same respondents show a big difference. Indicating, the students in the experimental group show a noticeable improvement in their scores from pretest to posttest, as compared to the students in the controlled group.
2. There is no significant difference between the pretest mean scores in ICT mentoring according to electronic media utilization among BTLEd students in the experimental and controlled group.
3. There is a significant difference between posttest mean scores in ICT mentoring according to electronic media utilization among BTLEd students in the experimental and controlled group.
4. The learners in the experimental group gained a mean of 11.35 as compared to the students in the controlled group which had only 2.38 low gain. Thus, using the mentoring approach in teaching ICT subjects according to electronic media utilization to BTLEd students is far more effective than using the lecture method of preparing the same lesson.

RECOMMENDATIONS

Based on the conclusions drawn from the results of the study, the following recommendations offered;

1. Using a mentoring approach in teaching ICT in Facilitating Learner-Centered Approaches according to electronic media utilization is recommended to allow the students to work independently, practice and master the skill and learning.
2. Give the students a lot of hands-on activity for electronic media utilization to master the technical knowledge of ICT.
3. Replicate the study using other strategies and assessment tools and a more diverse population to ascertain the significance.
4. Conduct a similar study to confirm the results of this study and improve the generalizability of the findings.

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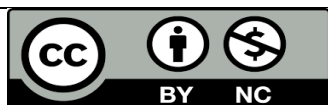
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Mentoring Towards Information Communication and Technology in Utilizing Electronic Media for Bachelor of Teaching Livelihood Education Students in Eastern Visayas State University

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