

Perceptions of Secondary School Teachers on the Utilization of Educational Technology

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Abstract - The study investigated the perceptions of public and private secondary school teachers in selected municipalities of Zamboanga del Sur Province, Mindanao, Philippines on the utilization of educational technology. The descriptive research design is used in which questionnaire was employed as main instrument in gathering data from the 132 public and 34 private secondary school teachers. The study revealed that majority of the respondents was female and more or less 31 years of age. Most of them were taking masters; Makabayan had a great share as to their area of concentration. Nearly everyone was neophytes with permanent status in the service and attended 1 to 3 times on trainings/seminars in educational technology. The public secondary teachers mostly utilized television, DVD player and radio/cassette tape player, while majority of the private secondary teachers utilized computer with internet connection, computer printer and DVD player. The teachers both in public and private secondary schools perceived that they rarely used educational technology in their

teaching. They have uncertain disposition towards the role of educational technology. The perceptions of the two groups of respondents were no significant difference between the responses of the public and private secondary school teachers on the utilization of educational technology.

Keywords – educational technology, perception, utilization, secondary school teacher

INTRODUCTION

Technology permeates all sectors of our lives. Educators have been under pressure to reform school through technology (Becker, 2001; Mehlinger, 1996; Sheingold & Hardley, 1990). Its remarkable influences improve today's society especially in the field of education. Mentors must be aware of their duty to convey the best quality education to stakeholders. They must realize the importance of educational technology to be integrated in the classroom instructions to improve the students' academic performance.

Teachers must stay ahead of the educational technology curve in order to give their students the best possible educational experience. There can be problems on the availability of any technology in school because of inadequate budget. Or if there are any, nobody use because of "technophobia". Reluctance to incorporate computers can also be attributed to unfamiliarity or basic conservatism.

In the last few years, many important changes have occurred in the educational systems of the Asia-Pacific region which required teachers to upgrade and refine their technology skills (Tan et.al., 1999). Most countries in this region have been working hard the last few years to develop policies and strategies for the schools to infuse technology into schools (Williams 2000).

Working in an appropriately designed technology-rich environment has the potential of producing a variety of positive outcomes (Tiene&Luft, 2001): improved patterns of social interaction, changes in teaching styles, more effective teaching, increased student (and perhaps, teacher) motivation, and enhanced student learning.

Achieving this potential, however, is the challenge, and it requires the correct vision of technology and its integration.

Cakir, Ismail (2006) stated that in recent years, a great tendency towards the use of technology and its integration into the curriculum has gained a great importance. Particularly, the use of video as an audio-visual material in foreign language teaching classrooms has grown rapidly because of the increasing emphasis on communicative techniques, and it is obvious that the use of video is a great help for foreign language teachers in stimulating and facilitating the target language.

Fullan (2000), in a review of educational reform, reminds us that, since technology is ubiquitous, the issue is not whether educational technology is everywhere, but how we contend with it. He added that as technology becomes more powerful, good teachers become more indispensable. Today educators face many challenges. The number of students enrolling in schools is increasing, at the same time the number of teachers available to teach is decreasing. Schools continue to deteriorate while academic standards rise. Technology can help alleviate many of these problems (Weathersbee 2008).

In order to succeed in technology utilization, implementers must come to realize that the technology itself cannot be the ultimate goal. Those responsible for evaluating implementation must understand the role that technology deserves in the teaching and learning process. They need to understand that technology is not a means to an end. Rather, it is simply a tool that when used efficiently and effectively, can have a positive impact on students; zeal and impetus for school (Rockman 1998).

Thus, teachers in Quality Learning Circle No.1 (QualLCi-1) of the Province of Zamboanga del Sur, Mindano, Philippines, comprising the municipalities of Dumingag, Mahayag and Josefina could be the enormous implementers in utilizing the available educational technology to enhance learning of secondary school students.

OBJECTIVES OF THE STUDY

This study looked into the perceptions of secondary school teachers in QualLCi-1 on the utilization of educational technology. Specifically,

the study sought to achieve the following objectives: (1) to describe the profile of the public and private secondary school teachers; (2) to determine the educational technology utilized by the respondents; (3) to assess how often the respondents utilize educational technology; (4) describe the perceptions of the respondents on the role of educational technology utilization; (5) to relate the responses of the public and private secondary school teachers on the role of educational technology utilization.

MATERIALS AND METHODS

The descriptive research design was used to attain the objectives of the study. One hundred sixty-six (166) teachers from the selected private and public secondary schools in Zamboanga del Sur Division, comprising Dumingag, Mahayag and Josefina towns with secondary schools. This study was purposely conducted in this area because the researcher believes that there is a need for the teachers to understand and to realize the impact of educational technology utilization.

The instrument used in the study was divided into four parts. Part I drew out the respondents' profile as age, sex, area of concentration, length of service, status of employment, experience on the use of educational technology and number of trainings/seminars attended in educational technology. Part II identified the educational technology utilized. Part III pertained to the extent of educational technology utilization. Part IV concerned with the perception of respondents on the role of educational technology utilization adopted from the study of Dr. Sunday Taiwo. It used the 5-point rating scale – (5)strongly agree, (4) agree, (3) uncertain, (2) disagree and (1) strongly disagree.

An approved permission was taken from the Schools Division Superintendent in Department of Education (DepEd) Zamboangadel Sur before the administration and distribution of questionnaires to the respondents. After the retrieval process, the researcher went through the process of tallying, computation, analysis, and interpretation of data. In analyzing the data, descriptive statistics such as frequency, percentage, rank and weighted mean were used. Frequency was used to determine the distribution of the respondents in each category. Percentage was used to determine the position of the respondents in

each educational technology utilized and the position in the scale of comparison. Rank order was used to describe the positional importance of an item in relation to other items as shown in the table. Weighted mean was used to determine the perceptions of the respondents toward the utilization of educational technology. To test the significant difference between the perceptions of public and private secondary school teachers on the utilization of educational technology, t -test was used.

RESULTS AND DISCUSSION

In terms of age, results show that most teachers both in public and private high schools are in the age bracket between 31 to 40. This indicates that a greater portion of the respondents belong to the younger generation of teachers. When it comes to sex, data show that most of the secondary school teachers in QuaLCi-1 are dominated by females even to sum both public and private high school teachers. In regard to the area of concentration of the respondents, out of 132 public secondary school teachers, results reveal both in public and private school more teachers are in the area of Makabayan since it is composed of MAPEH, Araling Panlipunan, Technology and Home Economics and Values Education subjects.

For educational attainment, it has been observe that the respondents have started to enrich themselves professionally. Results also show that most of the respondents are considered neophytes both in public and private secondary schools who got the highest percent share. It also indicates that permanent status of employment got the highest percent share among the responses. They give more importance on the benefits that can be obtained if they are permanent in the service.

The table also shows the respondents' consideration on the experience of the use of educational technology. It shows that most of the respondents both in public and private schools believed that they are intermediate and that they can work independently, but have lots more to learn on the use of educational technology. When it comes to the number of training/seminars attended in educational technology. It has been observed that most of the respondents both in public and private secondary schools had attended 1 to 3 times on trainings/

seminars. They felt their lack of knowledge and skills on the utilization of available educational technology.

Educational Technology Utilized

It is observed that for public secondary school teachers, television ranked first, while for private secondary school teachers, computer with internet connection ranked first. These are commonly available educational technology utilized by the respondents in their respective schools. It was found out that among the 22 educational technologies presented, media player (MP3) and media player (MP4) got the lowest response and ranked last. It is because these are not commonly available for classroom utilization.

Utilization of Educational Technology by the Public Secondary School Teachers

From the list of educational technology, eight were noted by the respondents as “sometimes” utilized. These equipment include television, DVD player, VCD player, radio/cassette tape player, radio/cassette recorder, computer (stand alone), printer (computer) and microphone (wired or wireless). According to the public secondary teachers, they “rarely” utilized the following educational technology: digital camera, still camera, slide projector, computer with internet connection, computer in a network connection, speaker (computer), overhead projector and photocopier and they “never” utilized gadgets such as media player 3 and media player 4.

The respondents from this group considered their less extent of utilization of the educational technology because in most cases, only the laboratory subjects utilize this educational technology equipment.

Utilization of Educational Technology by the Private Secondary School Teachers

From the list of twenty-two educational technology, only four were identified by this group of respondents as “often” utilized. These include the computer (stand alone), computer with internet connection,

computer in a network connection and computer printer. Among these educational technology, seven were noted by the respondents as “sometimes” utilized, which include television set, DVD player, VCD player, radio/cassette player, radio/cassette recorder, speaker (computer) and microphone (wired or wireless). According to the private secondary teachers, they “rarely” utilized the following: laptop, digital camera, slide projector, LCD projector, overhead projector and photocopier. In addition, they “never” utilized still camera, video camera, scanner, media player 3 and media player 4.

Results show that educational technology can still be rarely and even never utilized in private schools due to lack of funding source to acquire such equipment. Some also are not available for teaching utilization.

Compared Responses of Public and Private Secondary School Teachers

The respondents have varied views with regard to how often they utilized educational technology. The public secondary teachers had viewed television as utilized to fair extent, followed by the radio/cassette tape player, which got the weighted average means of 3.10 and 3.03, respectively. On the other hand, the private secondary teachers generally identified the computer printer to have high extent of utilization followed by the computer in a network connection. It can be deduced from the result that the private secondary teachers highly utilized the information technology equipment rather than the audio-visual equipment which fairly utilized by the public secondary teachers. However both public and private teachers showed common views on the less extent of utilization of educational technology of which generally had an average mean of 2.30. It can be implied that even if the respondents’ schools are in public or private, there is a tendency that commonly the respondents had utilized to less extent on educational technology.

Perceptions of Public Secondary Teachers toward the Role of Educational Technology Utilization

Out of 25 statement presented, it is in item no. 14 where the respondents rated high as affirmed by the highest weighted average mean value of 4.25. They claimed to have a very high perception towards the use of educational technology and should be encouraged in school since they viewed it that will enhance their work.

However, the public secondary teachers were uncertain on their perception toward the statement that educational technology should be considered by the teacher as a device which saves teacher preparation as evidence by the weighted average mean of 3.27. On the other hand, they disagree that educational technology like television, radio, stereo, cassette, etc. are manufactured not for learning, but for relaxation as manifested by the lowest weighted average mean of 2.02. They believed that these equipment could be of great help in the teaching-learning process.

Generally, the overall mean of 3.11 describes the respondents' perceptions toward the utilization of educational technology as uncertain. Most teachers have vague ideas to it because they could not imagine how these media could be used without threatening the traditional role, or at best position of classroom teachers. As well as they are doubtful if these technology could really improve their teaching skills that later enhance student achievement.

Table 1. Perceptions of public secondary teachers toward
the role of educational technology

	Statement	WAM	Adjectival Equivalent
1.	I believe I can teach well even when educational technology is not available.	3.55	Agree
2.	Students are dehumanized when educational technology alone is used in institution.	3.00	Uncertain
3.	Educational technology should be considered by the teacher as a solution to problem of teacher's shortage.	3.25	Uncertain
4.	In any teaching-learning situation, teachers need no help from any source.	2.46	Disagree
5.	Television adds interest but teaches little.	2.89	Uncertain
6.	The use of educational technology per se makes teacher redundant.	2.33	Disagree
7.	Educational technology should be considered by the teacher as a device which saves teacher preparation.	3.27	Uncertain
8.	Educational technology like television, radio, video, cassette, etc. are manufactured not for learning, but for relaxation.	2.02	Disagree
9.	The use of educational technology per se does not make better use of teacher's time and sooner or later the teacher may be declared unwanted.	2.11	Disagree
10.	Educational technology dictates to the teacher and thus limits his freedom.	2.19	Disagree
11.	Course of instruction taught by radio, tapes and recorders are bad because they not specify what the role of teacher will be.	2.30	Disagree
12.	Computer-assisted instruction is ineffective because it does not make better use of teacher's time.	2.25	Disagree
13.	The major use of educational technology is to assist the teacher by enhancing his/her effectiveness in the classroom.	4.21	Agree
14.	The use of educational technology should be encouraged in school because it enhances the work of teachers.	4.25	Agree
15.	Teachers use educational technology because they see it as a partner in progress.	4.23	Agree
16.	I believe I can only teach well when I use educational technology.	3.05	Uncertain
17.	Both educational technology and teacher are indispensable to each other.	3.76	Agree
18.	The effectiveness of any teaching-learning situation depends on the combination of teacher and educational technology.	4.07	Uncertain
19.	No matter what method a teacher employs, without the use of educational technology the quality of such learning is poor.	2.82	Agree
20.	Educational technology, when used with teacher, provides the teacher with the means of extending the horizon of experience.	4.19	Uncertain
	OVERALL MEAN	3.11	

Perceptions of Private Secondary Teachers toward the Role of Educational Technology

The revealed responses in Table 2 illustrate the perceptions of private secondary teachers toward the role educational technology utilization. With the 25 statement presented, item no. 15 got the highest weighted average mean value of 4.62. They strongly asserted that teachers use educational technology because they see it as a partner in progress.

On the other hand, the same respondents in private schools were uncertain on their perceptions toward the statement that educational technology should be considered by the teacher as a device which saves teacher preparation as manifested with the weighted average mean of 3.47. However, a great number of respondents disagree on the statement that computer-assisted instruction is ineffective because it does not make better use of teacher's time as evidenced in the lowest weighted average mean of 2.09.

In general, the overall mean of 3.29 describes the perception of private secondary teachers on the utilization of educational technology as uncertain. Majority of the teachers have undecided disposition toward the role of these educational technology in the teaching-learning situation.

Table 2. Perceptions of Private Secondary Teachers
Toward the Role of Educational Technology

Statement	WAM	Adjectival Equivalent
1. I believe I can teach well even when educational technology is not available.	3.53	Agree
2. Students are dehumanized when educational technology alone is used in institution.	3.18	Uncertain
3. Educational technology should be considered by the teacher as a solution to problem of teacher's shortage.	3.79	Agree
4. In any teaching-learning situation, teachers need no help from any source.	2.47	Disagree
5. Television adds interest but teaches little.	2.82	Uncertain
6. The use of educational technology per se makes teacher redundant.	2.59	Uncertain
7. Educational technology should be considered by the teacher as a device which saves teacher preparation.	3.47	Uncertain
8. Educational technology like television, radio, video, cassette, etc. are manufactured not for learning, but for relaxation.	2.24	Disagree
9. The use of educational technology per se does not make better use of teacher's time and sooner or later the teacher may be declared unwanted.	2.26	Disagree
10. Educational technology dictates to the teacher and thus limits his freedom.	2.24	Disagree
11. Course of instruction taught by radio, tapes and recorders are bad because they not specify what the role of teacher will be.	2.35	Disagree
12. Computer-assisted instruction is ineffective because it does not make better use of teacher's time.	2.09	Disagree
13. The major use of educational technology is to assist the teacher by enhancing his/her effectiveness in the classroom.	4.50	Agree
14. The use of educational technology should be encouraged in school because it enhances the work of teachers.	4.53	Strongly Agree
15. Teachers use educational technology because they see it as a partner in progress.	4.62	Strongly Agree
16. I believe I can only teach well when I use educational technology.	3.18	Uncertain
17. Both educational technology and teacher are indispensable to each other.	3.85	Agree
18. The effectiveness of any teaching-learning situation depends on the combination of teacher and educational technology.	4.32	Agree
19. No matter what method a teacher employs, without the use of educational technology the quality of such learning is poor.	3.53	Agree
20. Educational technology, when used with teacher, provides the teacher with the means of extending the horizon of experience.	4.32	Agree
OVERALL MEAN	3.29	Uncertain

Table 3. Difference Between the Responses of the Public and Private Secondary School Teachers on the Utilization of Educational Technology

School	Mean	Standard Deviation	Computed t-value	Critical t-value
Public	$X_1 = 46$	$SD_1 = 14.57$	$t = .623$	$t = 1.645$
Private	$X_2 = 55$	$SD_2 = 12.92$		

$t = .623$
 $df = 164$

$cv = 1.645$
 $p = .05$

The findings reveal that the computed t-value of .62 does not exceed the critical value of 1.645 with 164 degrees of freedom at .05 level of significance; hence there is no sufficient evidence to reject the null hypothesis. Therefore, there is no significant difference variation as to the responses of public and private secondary school teachers toward the role of educational technology utilization.

Both groups manifested similar responses regarding the role of educational technology utilization. The unavailability of these media leads to the lack of skills of knowledge of teachers.

CONCLUSIONS

Greater part of public and private secondary school teachers are female, new in the service, have lots to improve in using educational technology and seldom attended trainings/seminars in educational technology. The public secondary schools could only afford audio and visual instructional materials, whereas the private secondary schools can even embraced the newest information technology available such as the Internet. Thus, a clear gap on the availability of resources among different schools. Educational technology was not very extensively utilized in both public and private secondary schools. The teachers' perceptions on the role of educational technology are apparently the same. They are all doubtful of how these media could improve their teaching skills and how could it become their partner in progress. Lastly, the respondents' rare utilization of available educational

technology leads to their uncertain perception on the role of educational technology in teaching-learning process.

As recommended, teacher's use of educational technology should be encouraged and must be addressed by the school administrators since it enhances students to learn more. If possible, any educational technology available must be utilized and maximized. Strategies and a well-planned program must be fully implemented and realized.

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