The Use of Computers in Testing: Implementation, Attitude, and effectiveness

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Abstract:

This study aimed to examine first semester students of English language by testing their English phonetics through the use of computers, also to investigate their reaction towards computers, also to identify teachers' attitude towards computers in testing, moreover to identify what prevents from applying the use of computers in colleges and institutions.

The sample of the study consisted of thirty-five participants. Ten were students studying at college of Education Abo-Issa. The other twenty-five were teachers from college of Education Abo-Issa, English department, Zawia University.

Two methods of data collection were used in this study; questionnaire and observations. The questionnaire was used to find teachers' attitudes toward the use of computers in testing, and problems encountered in implementing this technique in testing. Checklist observation was used to find out if students have background about computers and identify their reaction when they are being tested via computers.

The findings of this study revealed that in spite of the positive attitude of teachers towards the use of computers in testing; teachers need an intensive course about computer skills and fundamentals. Lack of labs is the essential issue that prevent from implementing the use of computers in testing. Students found computers interesting and they enjoyed the testing process. Recommendations were provided at the end of the study for teachers.
Key words: Educational Technology, Educational Testing, technical issues, Testing Process, Computer Adaptive Testing.

الهدف من هذه الدراسة هو اختبار طلاب الفصل الدراسي الأول للغة الإنجليزية من خلال اختبارهم في مادة الصوتيات من خلال استخدام أجهزة الكمبيوتر، وكذلك للتحقق من رد فعلهم تجاه أجهزة الكمبيوتر، وكذلك لتحديد موقف اعضاء هيئة التدريس تجاه أجهزة الكمبيوتر في الاختبار، علاوة على ذلك لتحديد ما يمنع تطبيق استخدام أجهزة الكمبيوتر في الكليات والمعاهد.

تكونت عينة الدراسة من 35 مشاركاً. 10 طلاب يدرسون في كلية التربية أبو عيسى. و25 الآخرون كانوا مدرسين من كلية التربية أبو عيسى، قسم اللغة الإنجليزية، جامعة الزاوية.

تم استخدام طريقتين لجمع البيانات في هذه الدراسة، الاستبيان والملاحظات. تم استخدام الاستبيان لمعرفة موقف المعلمين تجاه استخدام أجهزة الكمبيوتر في الاختبار، والمشاكل التي يواجهونها في تنفيذ

هذه التقنية في الاختبار. تم استخدام ملاحظة قائمة المراجعة لمعرفة ما إذا كان لدى الطلاب خلفية عن أجهزة الكمبيوتر وتحديد رد فعلهم عندما يتم اختبارهم عبر أجهزة الكمبيوتر.

كشفت نتائج هذه الدراسة أنه على الرغم من الموقف الإيجابي للمعلمين تجاه استخدام الكمبيوتر في الاختبار؛ يحتاج المعلمون إلى دورة مكثفة حول مهارات الكمبيوتر وأساسياته. إن نقص المختبرات هو القضية الأساسية التي تمنع من تنفيذ استخدام أجهزة الكمبيوتر في الاختبار. وجد الطلاب أجهزة الكمبيوتر مثيرة للاهتمام واستمتعوا بعملية الاختبار. تم تقديم التوصيات في نهاية الدراسة للمعلمين.

1. Introduction:

Computers are becoming increasingly important in the field of assessment and evaluation for a long time ago. Several studies had dealt with computers both in the assessment and evaluation process as they are a very efficient for measuring candidates' abilities (Fakeye, Silye & Wiwczaroski, 2005). A recent survey suggested that Computer Adaptive testing (CAT) may be more helpful rather than the traditional way of testing which is paper and pencil (Thurlow, Lazarus, Albus, & Hodgson, 2010). Although considerable researches have been devoted to computers in providing feedback, instructions, and teaching, rather less attention has been paid to examine the effect of using Computer based testing (CBT) technique in testing students of English language through software called Wondershare-quizcreator.4.0.0.9. Scrutinizers have found that teachers are aware of the benefits of using computers in both teaching and testing, but the absence of qualified teachers, lab technicians, and lack of labs will contribute in making the issue unfeasibly to be solved. The aim of this investigation is to examine the reaction and the attitude of students by using computers-based testing CBT to evaluate their progress in English language, specifically phonetics of English, also to identify the issues encountered by teachers in adopting and implementing this valuable technique.

2. Research Problem:

All teachers face difficulties in integrating the use of computers in teaching. These difficulties of course will differ from one teacher to another. They could be negative attitude towards the use of computers, lack of time, large number of students and technical issues.

3. Research questions:

By locating the research problem, the research questions will be clear.

1. Do teachers use computers in testing English language?
2. What are the difficulties encountered by English language teachers in Abu-Issa college of Education during the implementations of computers in teaching and testing?
3. What are the possible solutions that can be given to overcome these issues?
4. Are teachers skillful with using computer basics and applications in general?
5. Do students face dilemmas during the testing process via computers?
6. What is the attitude of teachers and students toward computers?

4. Aims and Objectives

The aim of the study is to point out the importance of computers in educational testing to increase students' level and perception towards computers, and to formalize teachers with the importance of using computers in testing.

5. Significance of the Research

The study is important as it attempts to discuss the role of computers in testing; it also tries to present suggestions on the importance of Improving testing using educational technology instruments. This study will provide insight for teachers in Abu-Issa College, into how to initiate and benefit from implementing the use of computers in testing.

6. Scope and limitations

The study was limited to the English Department in Abu-Issa College of education, for the Academic Semester: Spring 2019. The results were limited to the setting and the samples which included teachers and students from the English department. Conducting other studies on different contexts might come up with different results in future studies.

7. Literature Review

Computers have become the most valuable device in different fields. For example, teaching, feedback, and evaluation. Computer technology is widely used in many educational institutes, schools, and colleges as a mean for providing training and teaching, but a less importance is given to computers in testing and evaluating candidate of English language. They have been used to achieve a certain work and they have the ability to enhance teaching and testing (spark & Ames, 1992). Both teachers and students should be aware of how to get benefit from these properties of this valuable device.

7.1 Defining computer-based testing

One broad definition of computer testing technique has been defined by Silye and Wiwczaroski (2005) "as an integrated procedure in which language performance is elicited and assessed with the help of a computer" (p. 3). The test taker has to deal with the computer itself only and the teacher has nothing to do except watching the testing process. To support the definition, Luan (2007) identified that there are three instruments of testing via computer, Computer- Assisted Language Testing CALT, Computer Adaptive Testing CAT, and Web-Based Language Testing WBLT.

7.2 Instruments of testing via computer

The first instrument in testing via computer is CALT; tests that administrated at a computer terminal are called computer-Assisted Language Testing. In this type of testing the test taker has to use the input devices of the computer to respond to items each in isolation, meaning that, this kind of testing will present different set of questions designed by many testing types, i.e. fill-in the gaps will be presented and should be answered before multiple choice questions.

The second instrument for testing via computer is CAT; also, these are administrated tests, but they are related to subtype adaptive tests. Deville (2001) defined the subtype adaptive tests as they are shorter in time than CALT, also this kind of testing is designed to identify learners' abilities, so when their ability is identified the test will be over even if there is more unanswered questions.

The third instrument for testing via computer is WBLT; web-pages are written by Hyper Text Markup Language (HTML) to test learners by using internet. The process of testing via internet has been illustrated by Callear and King (2008), the server contains HTML files designed by the teacher and downloaded or answered by the test taker.

Chapelle & Douglas (2001) argue that WBLT will not be affective if the following point has not been achieved; it requires a high-tech trained teacher to deal with this technique. Teachers are required to be highly familiar with both computers and internet in setting up exam files and uploading it to the server to be located by students.

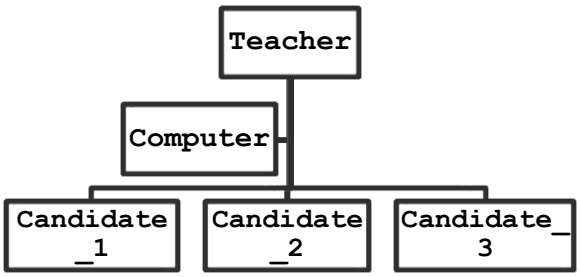

Figure 1: Testing process via server (Chapelle & Douglas, 2001).

7.3 Computer versus paper-and-pencil

7.3.1 Using MCAS to test writing

Researchers have been working to find an up-to-date procedure to evaluate candidates writing. The old well-known procedure is paper-and-pencil, this way of writing allow test taker to write on a separate sheet by using a pen or a pencil, a few years ago researches designed an application to be used or to take place instead of paper-and-pencil, this program used with the aid of keyboard only, the Massachusetts Comprehensive Assessment System (MCAS) is an application designed to count words entered by the test taker per minute.

Both (Russell & Plati, 2001) had examined the effect of using MCAS. Students were tested by paper and pencil, and then they were tested by using MCAS, as a result, all of students were considered as passing, but they were divided into four groups.

Firstly, the failing group, 1% of test takers had shown his or her reaction towards using paper and pencil and 0% towards the use of MCAS. Secondly, 42% of students who needs improvement had shown their reaction towards using paper and pencil, and 24% of students had shown their reaction towards using MCAS. Thirdly, 52% of proficient students indicated their attitude using paper and pencil in testing, and 66% of students had shown their level toward using MCAS in testing writing. Fourthly, only 5% of students had been considered as advanced in using paper and pencil, but 10% of students had shown their reaction towards the use of MCAS.

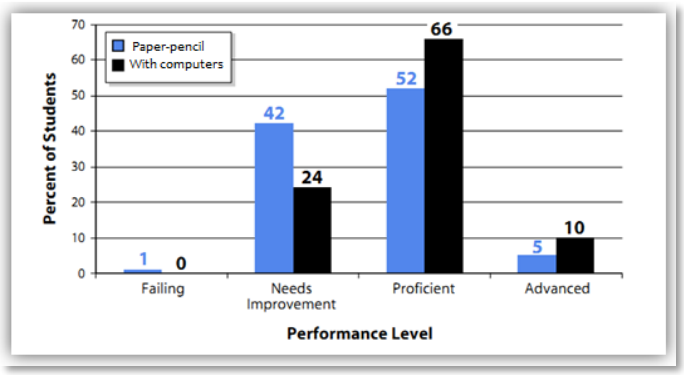

Figure 2:

Mode of administration by using MCAS computer application to evaluate writing (Russell & Plati, 2001).

7.3.2 Obtaining test scores

After finishing the exam whether on a paper or via computer, comes the correcting process, for paper based test, the teacher will start correcting exam papers and assign marks for questions. For computers, the marks will be assigned during the designing process of exam file, at the end of exam; the computer will provide the teacher with the overall mark, with the feature of looking at the questions that have been answered wrong.

Paper-based test scores (PBTS) were greater than computer-based test scores CBTS (Mazzeo and Muhlstein, 1991). This study indicates that computers are less affective in scoring rather than paper-based testing scores. Computers at that time were not given importance in testing and the applications used were not capable at obtaining test scores.

From another viewpoint, Brown (1992) maintains that “The content attainment of computers is higher than paper-pencil” (p. 97). Computer applications had become more efficient, rapid, and easy to obtain the scores of running test, many features are accompanied with the latest software versions of these kinds of Applications (Apps).

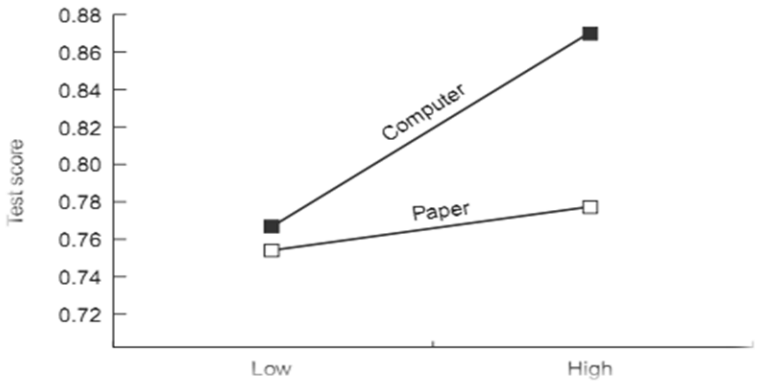

Figure 3:
The attainment of computers vs. paper and pencil (Brown, 1992)

7.4 Advantages of CBT

On the one hand, Brown (1992) states the benefits of using computers in testing, the following points have been seen from three perspectives, from the perspective of computers in language testing, computers at scoring, and human consideration:

The first advantage "Students find computers amazing and they enjoy the process of testing" (Stevenson & Gross, 1991, p. 56). Many test takers find it easy to deal computers, because most of them had a computer course or they have computers at their homes, but the dilemma is with those students who never experienced or used a computer before, they will find it so complicated to use the computer in testing process.

The second advantage, each test taker can get an immediate feedback through the testing program. Instructions are available in each exam section to help students recognizing the function of each button available, this will make them relax and do well in the exam.

The third benefit, computers take less time than paper-and-pencil. Each test section or item will be assigned a separate time, this will differ from one section or item to another, depending on exam difficulty.

7.5 Disadvantages of CBT

On the other hand, the disadvantages of using computer based testing have been summarized by Brown (1992). The first disadvantage, technical faults will lead to low levels in the use of CBT. The system failure may cause a serious problem in using computers, so it is required to train one of the staff members to work as a lab technician, and fix any sudden failure in the further works.

The second disadvantage, teachers will be unable to set up the exam because lack of time. Preparing the exam files will need a lot of time that is why it is import to employ one of the stuff members in the school or institution to work as a lab assistant, to help the teacher preparing the exam items.

The thirds disadvantage, inappropriate training of CBT use by teachers will result in low level performance. Teachers and the whole staff members should be well trained about how to use CBT functions or they will face problems in their teaching and testing process.

7.6 Issues encountered designing CALT exam file

When setting up exam file, the teacher should have collected information that will help in the designing process, i.e. age of students, the difficulty level, the way of viewing items while taking the test, should feedback button be provided or not ? Kirsch, Jamieson, Taylor, and Eignor (1997) have presented issues encountered designing CALT exam file, and the following points should be considered by language teachers:

How CALTs can be piloted? What should be considered here is the nature of CALTs towards students, and this exam will differ from one student to another. The result is by preparing a single examination and this examination must be piloted, revised, analyzed before validating it through the operational examination. How CALT items should be sampled? This kind of tests will contain a lot of items, so the teacher has to select random items.

8. Methodology

The aim of this study is to provide valid information for investigating the effect of using computers in testing students of English language at Al-Zawia University, college of Education Abu-Issa. The aim of this study is to obtain information from both students and teachers about using computers in testing English language. The responses collected by observing students when they are being tested via computer and a questionnaire was prepared for teachers

8.1 Participants

The participants of this study are thirty-five participants. Ten of them are students at Abu-Essa college of Education, English department, first semester. The other twenty-five participants are teachers teaching English in Abu-Issa college of Education, faculty of Education, Zawia University.

8.2 Research design

To achieve the study objectives, observations were used to identify the statues towards computer use in testing among Libyan students at Zawiya University, Abo-Essa College of education. Questionnaires were used to find out teachers' attitude towards the use of computers in testing, and what prevent from applying computers in testing.

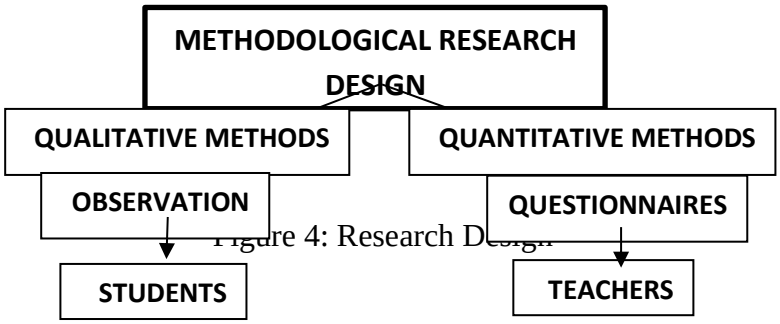

Figure 4: Research Design

8.3 Methods of data collection

8.3.1 Observation

According to (Marczyk, Dematteo, & Festinger, 2005) “qualitative research provides a valuable insight into the local perspective of population” (p.121). This kind of research is successful in getting extra information about the research problem. They also stated that “One of the best kinds of qualitative research is observation; this method allows the researcher to collect information through observation and taking notes or ticking a prepared checklist” (P. 71).

Observation helped the researcher to collect information about learners’ activities without affecting the testing process via computer. Types of observation have been illustrated by Patton (2002), the first type is the naturalistic observation, it has no involvement by the researcher, and it is simply a studying behavior that occurs naturally as in an experiment laboratory setting. The second type is the case study, this type involved through a descriptive analysis of a group, individual, or a single. The third is the scaled rating observation, it indicates if a feature or a requirement of the research is present or not. The fifth type is the interval observation, to record a behavior through a prepared document that contains a separated recording time every five minutes. The sixth type is the narrative

notes; a prepared form may include space after each point to allow the researcher writing notes.

For the purpose of this study, structured observation involves the process of a prepared detailed checklist. This kind of observations can be used to record data from different samples at the same time; this kind of observations is an effective method of collecting information for certain type of research questions, like leadership skills and level of participation (Marczyk, Dematteo, & Festinger 2005, p. 126).

8.3.2 Questionnaire

According to Nunan (1992) "quantitative research is controlled, objective, oriented research outcomes, and assumes that existence of certain facts is essential, somehow external to and independent of the observer or researcher" (p. 3). The collected data are numerical in which are seen as very important and essential facts. According to Goddard & Melville (2006) "in quantitative research, describing a trend means that the research problems can be answered best by a study in which the researcher seeks to establish the overall tendency of responses from individuals and to note how this tendency varies among people" (P. 47). Questionnaire is considered as one of the best tools in quantitative research.

8.4 Procedure

On the one hand, the ten participants of students tested via computers in the English laboratory, before they start the computer examination, students were informed with a brief summary for the purpose of this study, and during the testing process clarifications were provided about any item of the test, at the end, observations held for twenty minutes. Before students were dismissed, they were thanked for their cooperation.

On the other hand, questionnaires were collected from teachers of Abu-Issa college of Education, Zawia University. The process of distributing the questionnaire took four days, one, teachers welcomed to participate and responded to the questionnaire.

The researcher provided teachers with the aim of this study, and they contributed well with the researcher, the questionnaire items were written in clear vocabulary to let teachers understand questions in order to obtain accurate answers. At the end, teacher were thanked for their participation.

8.5 Data Analysis

For the observation results, they were collected and presented in a separate table, to make it clear and easy to follow. For the quantitative results, they were collected, analyzed using SPSS.

9. Results

The data were collected using a combination of research methodologies, particularly questionnaires and checklist structured observations were used to obtain reliable data. These results were introduced in clarifying tables.

9.1 Results of teachers' questionnaires

For the questionnaire, there were a total of twenty-five questionnaires distributed to teachers about attitude of using computers in testing and dilemmas encountered from

implementing this technique. All questionnaires were returned to the researcher, some teachers almost have the same answer of certain questions.

9.1.1 Part1: General background related to educational teaching and experience:

No.	Item	Response type:	Result	SD	M
1	Using an e-mail address	Yes No	23 (92%) 2 (8%)	0.0434 0.5	0.208
2	Years of Teaching experience	Less than a year Two years Four years Others [specify]	70% 8% 12% -	0.0142 0.125 0.0833	2.305
3	Do you think teachers have got a training course about computer ski	Yes No	- 100%	- 0.01	0.046
4	Do teachers use computers for teaching English at college?	Yes No	20% 80%	0.05 0.0125	0.0625
5	If teachers got the chance to use computers in testing, will they use it?	Yes No	92% 8%	0.0108 0.125	0.1358
6	Teachers think that computers are very sufficient in testing English language?	Yes No	12% 88%	0.0833 0.0113	0.0946

Table1: Results of the questionnaire [part1]

Teachers were asked to write down their e-mail addresses to find out if they really use computers. Out of the 25 responses, 23 or (92%) use e-mails, and 2 or (8%) do not have e-mail addresses. The explanation behind this is that teachers indeed achieve their work like sending and receiving e-mails by using computers.

According to the results of data collection, it can be seen that twenty teachers (70%) had experience of teaching in less than a year, while only two teachers (8%) had experience of teaching about two years, while the rest of three teachers (12%) had teaching experience of four years. This will provide that nearly all teachers had just begun teaching English.

When teachers were asked if they have got a training course about computer skills, teachers responds showed that (100%) asserted that they had not any previous knowledge and skills in using computers, while (0%) or non-responds to those teachers who have got a training course about computers at all. All teachers had experienced computer skills alone without learning the basics of computer through a training course.

Teachers' responses elicit that twenty teachers (80%) said that they never used computers for teaching English language at college, whereas five teachers (20%) stated that they use computers for teaching English language, those five teachers had more than a year in teaching, two of them have been teaching for two years, whereas the other three have been

teaching for four years. Teachers with a long experience in teaching try to integrate computers in Teaching.

In terms of probability of using computers in testing, majority of twenty three teachers (92%) said that if they got the chance to use computers in testing, they will use it. The other two teachers (8%) said that they will not use computers in testing English language, those two teachers do not have e-mails and their teaching experience is less than a year. In fact, teachers without computer experience will not agree because they do not know the benefit of using computers in testing.

The overall perception of responses regarding that computers are very sufficient in testing English language, indicated that twenty two teachers (88%) agreed that computers are very sufficient, whereas three teachers (12%) did not accept that computers are very sufficient, two teachers who did not accept that computers are effective in testing have a personal attitude toward computers, as the following chart will indicated, the other teacher who did not accept the answer too, had never used computers in teaching English language.

9.1.2 Part2: Answering by ticking the most reasonable option

No.	Item	Response type:	Result	SD	M
1	What are problems that prevent teachers from implementing computes in testing?	Lack of labs Attitude towards computers Time consuming	84% 16% -	0.0119 0.0625	0.0744
2	Which is more accurate in testing?	Computers Paper & pencil	80% 20%	0.0125 0.05	0.01125
3	How many hours per-week do you use computers in English language?	0-2 hrs 2-7 hrs 7-12 hrs Others [specify]	- - 88% 12%	- - 0.0113 0.083	0.1773

Table2: Results of the questionnaire [part2]

Twenty-one of teachers (84%) indicated that lack of labs is the essential problem that prevent teachers from implementing computers in testing, while four teachers (16%) specified that a80ttitude towards computers is the basic issue from applying computers in testing. All of the four teachers have been teaching English for less than a year and they did not have a course about computer skills that is why they selected the attitude towards computers as a main problem. Findings of this study are similar to a study by Malenoski (2007).

While twenty teachers (80%) agree that computers are better than paper-and-pencil in testing, whereas five teachers (20%) indicated that paper-and pencil is better than computers in testing. The responses given by the teachers with regard to this question are similar to Brown's study in (1992). This is simply reflect that the attainment of using computers in testing is more accurate than paper-and-pencil.

In discussing how many hours per-week do teachers use computers in English language, twenty two teachers (88%) responded that they use computers about 7-12 hours per-week, three teachers (12%) had selected others and specified Zero (0%), zero means that they never use computers at all, the teaching experience of those three teachers is less

than a year and they had indicated that the problem prevent teachers form implementing computers in testing is the attitude towards computers.

9.1.3 Part3: Answering by selecting one of the following options

No.	Item	Response type	Result	SD	M
1	I like computers	SA	100%	0.01	100.01
2	Computers are just a tool for chatting and entertainment, not for teaching and testing	SD	100%	0.01	100.01
3	Using computers will help designing lessons, editing text, and using projector to display my lessons.	SA	100%	0.01	100.01
4	Computers will be used for testing students of English language in colleges	A SD	40% 60%	0.025 0.0166	40.05 60.032
5	If there is a training course about computers in testing, I would try out implementing what I had learned to evaluate student.	A SD	84% 16%	0.0119 0.0625	84.039 16.125
6	If I had a training course about using computers in testing, I would try out using different programs to test my students.	SA SD	84% 16%	0.0119 0.0625	84.023 16.125
7	I like using computers for teaching purposes only, not for testing	A SD	20% 80%	0.05 0.0125	20.1 80.025
8	Using computers for testing is a waste of time	A SD	16% 84%	0.0625 0.0119	16.125 84.119
9	If I knew how to use computers in testing, I would always use it to assess my learners	SA SD	40% 60%	0.025 0.0166	40.05 60.332
10	There should be a lab technician to help teachers designing computer examinations.	SA	100%	0.01	100.01
11	Teachers will ignore this technique even if it’s available at the college or institution.	A SD	36% 64%	0.0277 0.0156	36.554 64.312
12	Students should study computer skills at the college as a subject.	SA	100%	0.01	100.01

Table3: Results of the questionnaire [part3]

From the above table, it can be seen that all twenty-five teachers (100%) strongly agreed they like computers. Teachers have a positive attitude toward computers.

When the teachers were asked to respond to mentioned statement above, all teachers (100%) strongly disagreed that computers are just a device for entertainment, but it can be

used, for teaching and testing. One of the teachers provided a comment for this point, he said “computers can serve many things; it can be used for both teaching and testing, only if the teacher knows how to use them”.

All twenty-five teachers (100%) strongly agreed that computers will help teachers designing lessons, editing texts, and using projector to display lessons. From this result, teachers are aware of the benefits of using computers firstly in teaching, and secondly in testing.

teachers were asked to give their perception on the matter of that computers will be used to evaluate students of English, ten teachers (40%) just agreed, whereas fifteen teachers (60%) strongly disagreed that computers will be used to assess learners of English at colleges. The fifteen teachers had strongly disagreed on this item because it might be that colleges do not have labs or the attitude toward computers is the reason.

Twenty-one teachers (84%) agreed that if they had a training course about computers in testing, they will apply computers to assess students, whereas four teachers (16%) strongly disagreed that if they have got a training course about using computers in testing, they will implement what they had learned to evaluate students.

On the one hand, indicate that twenty-one teachers (84%) strongly agreed that after having a training course about using computers in testing, they will learn to use different application alone to test students; on the other hand, four teachers (16%) strongly agreed that they would try out different applications alone to test learners. It was estimated that (50%) of teachers will strongly disagree on this point. Obtained result shows that most of college teachers are aware of the benefits of using computers in testing.

In terms of using computers in teaching only, testing only, or using both of them. Twenty teachers (80%) strongly disagreed that the purpose of computers is teaching only, whereas five teachers (20%) agreed that function of computers is for teaching, not for testing. The findings of this question are similar to Spark and Ames (1992).

According to the teachers’ responses on whether using computers for testing is a waste of time or not. Twenty-one teachers (84%) had selected strongly disagree and they did not accept the idea that computers are a waste of time in testing, but the other four teachers (16%) selected just disagree and they had accepted the idea.

According to graph 19, fifteen teachers had responded (60%) strongly disagree that they will always use computers in testing, whereas ten teachers responded (40%) strongly agree that they will not always use computers in testing. One of the teachers who strongly disagreed had commented that “If we knew how to use computers in testing, we will not always use them, but it depends”.

When the teachers were asked to respond on the need of the lab technician to help teachers designing computer examinations, all twenty-five teachers strongly agreed that having a lab technician is necessary to help during the designing process of examinations. This is a very important question and all teachers accept it, having a lab technician helps in setting up exams and prevent technical faults (Jones, 2004).

Nine teachers (36%) agreed that this technique will be ignored, while sixteen teachers (64%) strongly disagreed the ignorance of this technique while it’s available at college.

It can be seen that all twenty-five teachers strongly agreed on teaching computer skills as a subject in colleges. It was estimated that (80%) of teachers will accept this.

9.2 Results of students' observations

This section of observation presents the results that have been obtained during the testing process of students by using computer application called "Wondershare quiz creator".

Observation data	S 1	S 2	S 3	S 4	S 5	S 6	S 7	S 8	S 9	S 10	Total percentage
Students enjoyed testing process	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	100%
Students passed the exam	10%	10%	10%	10%	10%	0%	10%	10%	0%	10%	80%
Students failed the exam	0%	0%	0%	0%	0%	10%	0%	0%	10%	0%	20%
Students found the application difficult to use	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	10%
Students did not use the application at all	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Students used the feedback button	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	100%
Students were looking at their mates' answers	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Students have technophobia	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Students were stressed during testing process	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	10%

Table 4: Results of observation checklist

It has been noticed from the above checklist that students have a positive attitude towards computers in testing. All students enjoyed the testing process without stress at 100% and none of them has technophobia towards using computers, but two of students at 20% have failed the exam, whereas 80% passed the exam.

Those two students did not pass the exam because they found the application difficult to use. All students at 100% used the feedback button. They did know how to navigate through the program and they did not understand the function of each icon.

10. Discussion of the results

10.1 Discussion of teachers' questionnaires

The results suggest that teachers need a general course about computer skills in order to provide teachers with the opportunity to use computers in teaching then testing. Teachers have shown a positive attitude towards the use of computers in testing. A study suggested that teachers are required to be highly familiar with both computers and internet in setting up exam files; this can be done by teaching computers skills for teachers (Chapelle and Douglas, 2001).

Teachers never use computers for teaching English at college because of lack of labs. Teachers really have a positive attitude towards computers in testing, teachers are also aware of the benefits from using this technique in testing.

Teachers strongly agreed that computers can serve both teaching and testing, computers can help teachers designing lessons, editing texts, and using projector to display lessons.

The training course about using computers in testing is essential to understand the use of computers in testing in order to apply what they had learned and to use other applications to evaluate students. Teachers prefer using computers for both teaching and testing, the findings of this question is similar to a study presented by Spark and Ames (1992). They stated that computers have the ability to enhance teaching and testing.

Teachers are aware of the advantages of using computers in testing by refusing the idea that computers are a waste of time, teachers accepted the idea of using testing technique to assess learners, and teachers will not ignore the technique of testing even if it's available in colleges. This will illustrate that teachers are familiar of the benefits of this valuable technique.

The lab technician should be available to help teachers designing computer exams. Findings of this item are similar to a study done Jones (2004), he summarized that having a lab technician will minimize the technical faults by fixing the sudden errors and to help teachers design exam files in a short time.

Teaching computer skills for students as a subject is necessary, the findings are similar to a study done by Malenoski (2007) indicates that students should get computer course or they will find it difficult to deal with computer examinations.

10.2 Discussion of students' observations

The checklist observation is used to examine the student's attitude towards computers in testing. Particularly, a computer application is used to assess level of students in English phonetics. The findings of this study is similar to study conducted by Steven and Gross (1991, P. 56), they stated that students find computers amazing and they find it easy to deal with computers.

It can be noticed form the checklist that all students used the feedback button, the function of this button is to provide instructions and reviewing the questions that answered incorrectly. The obtained results are similar to a study in the literature review by Eignor (1997), using the feedback button is good for beginner levels but it will not work with high advanced learners, the reason is that advanced learners will not be given the opportunity to revise their wrong answers, this can be supported by Meunier (2010) when he clarified "it's a matter of difficulty" (p. 3).

The limitations of this study revolve around implementing use of computers by teachers of English in Abo-Issa College of education, and the effect of implementing this technique on students of English language. The generalizability of findings is limited because of the study sample is specifically about a domain lacks computer lab to apply the technique of testing computers in assessment. Consequently, the researcher cannot examine the effect of this technique on teachers in other colleges because it needs arrangements.

The findings of this study can extend in several ways. First, the effect of testing students by using computers is highly positive. That is because students had shown a high motivation towards computers. Future research should address the reason of this high motivation by students towards computers. Also, those teachers of English language do not give importance towards using computers in testing.

As a result, the researcher was unable to examine the effect of using computers in testing by making a comparison between all colleges of Zawia University because this requires a lot time and effort.

11. Conclusion

The findings of this study revealed that students enjoy the testing process of computers and teachers have a positive attitude and all teachers have a strong desire to use the technique of testing students through computer but the computer skills and lack of labs prevent from implementing the use of computers in testing.

The lack of labs is the essential reason for not implanting the use of computers in testing. This result thus confirms the importance of providing colleges with computer labs in order to use theses labs in teaching and testing. In previous study, Malenoski (2007) indicated that lack of computer labs is caused by the high price of equipment and the issue of what version should be purchased and installed.

Teachers do not have enough experience towards computers in general. These results thus confirm the importance of taking a general course about computer skills, the positive attitude of teachers towards using computers in testing was the most important result obtained from these forms. In previous study, Herman (2002) revealed that teachers are aware of the importance of using CBT.

12. Limitations of the study

One of the problems that the researcher has encountered during the collection of data is that teachers were not available at the same day, the researcher needed to go to college several times to arrange with head of department to inform teachers to come. The other problem is that the researcher needed a lot of time to install the required application of designing the exam file.

13. Recommendations

There are some recommendations may be made to improve the current issue. Teachers should take a course about computer skills; this course can help teachers learn the basics and proceeds to develop their skills of computers. Colleges should be provided with computer labs in order to apply the technique of teaching and testing, and to help teachers gain knowledge of used software in both teaching and testing.

Students should be encouraged to use the computer lab in order to let them get enough experience and improve their skills, also they graduate and become teachers, they will use what they had learned to assess their learners.

14. References

Brown, M. (1992). Computers versus Paper-and-pencil scoring. American Journal of Technology, 74(8), pp. 80-83

Chapelle, A., & Douglas C. (2001). Computer Applications: Foundations for teaching, testing and research. New York: Cambridge University Press.

Deville, T., Callear, D., & King, T. (2008). Using Computer-based Tests. Boston: Houghton Mifflin.

Deville, T. (2001). Technology and Testing: An Introduction. Iowa City, IA: ACT.

Eignor, E. (1997). Computer-Administered Tests. Journal of Research on Technology in Education. 29(4), 423-438.

Fakeye, F., Silye T., & Wiwczaroski M. (2005). A critical review of Computer Assisted Language Testing Instruments. USA. New York: Newbury House.
Goddard, W. & Melville, S. (2006). Research Methodology: An Introduction, 2nd edition. New York. Mega Digital. Juta Co.

Herman, R. (2002). Using Information technology. Englewood Cliffs: Prentice Hall.
Jones, J. (2004). Developing computerized tests. The journal of technology, learning and assessment, 2(6), 3-44.
Kirsch, S., Jamieson, H., Taylor, A., & Eignor, E. (1997). Computer-Administered Tests. Journal of Research on Technology in Education. 29(4), 423-438.
Luan, W. (2007). Scale Programs to Assessment through Computer. Columbus, Ohio: Pearson Education.
Malenoski, K. (2007). Using technology with classroom instructions that works. USA. Mid-continent publishing.
Meunier, E. (2010). The Great Potential for Functional computers in Testing. Oxford: Oxford
University Press.
Marczyk, G., Dematteo, D., & Festinger, D. (2005). Essentials of Research Design and Methodology. New York. John Wiley & Sons.
Mazzeo, T., & Muhlstein, J. (1991). Computers Versus Paper-and Pancil. California: The Benjamin Pub. Co, Inc.
Nunan, D. (1992). Research Methods in Language Learning. Cambridge: Cambridge University Press.
Patton, M. (2002). Qualitative Research and Evaluation Methods, 3rd edition. UK. Sega Publications, Inc.
Russell G., & Plati, M. (2001). Assessing Writing Through Computers. Englewood Cliffs: Prentice Hall.
Silye, c., & Wiwczaroski, A. (2005). Assessment Trough Computers. Princeton, NJ: Princeton University Press.
Spark, & Ames, (1992). Options for using computers in Learning and Assessment. Mahwah, NJ: Lawrence Erlbaum Associates.
Stevenson, B. & Gross, A. (1991). Integrating learning technology. Boston: Houghton Mifflin.
Thurlow, B., Lazarus, A., Albus, & Hodgson, T. (2010). Learner English on Computer. London. Longman University inc. ISBN: 0 582 29863-0