

HOW DOES STUDENT ABILITY AND SELF EFFICACY AFFECT THE USAGE OF COMPUTER TECHNOLOGY?

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ABSTRACT

The main aim of research was to find out the self –efficacy level among participant students and analyze their beliefs. This study showed that male students are more confident comparing to female students, similar to research of Bimer (2000) ,the computer usage has been known as biased toward the interest and fashion of men, this research also showed that females are not as confident as men are to computers. Awoleye and Siynbola(2005), bimer (2000) indicated that computers have some gendered attributes that favor man in some way so that many are more likely to use computers and they are more confident. Therefore it can be said that many studies has been support the gender factor in self efficacy but this research also show that this changes are more likely to be depend on the complexity of task and year of computer usage of particular student as Busch(1995) has been found the similar results . It is not surprising to find out that students have different computer levels and this affects their self efficac . Also some have advanced computer knowledge. Therefore they complain about the levels of computer courses offered to them. In addition to this it can be said that students with different computer skills show different self efficacy level as well.

INTRODUCTION Computer technology is involved in many aspects of our daily lives. In universities teachers, expectations from students about their computer abilities has been increasing. Most of the teachers do not accept hand written projects that usually prefer presentations prepared on the computers , and they also expect their students to do further studies , comparison of their subjects with different author results. Basically all departments at Eastern Mediterranean University Faculty of education has basic computer literacy courses given to their students in order to provide equal oppurtunities to all their students to gain ability of efficient computer usage for their projects and presentations.

THE AIM OF RESEARCH

This study is about students self efficacy to use the computer .Usually project based assignment need further research about subjects and there is need for computer to be used to do researches about subject to type the projector to do presentation or both .The student self efficacy to use computer beneficially as a tool can be matter of discussion in universities, where it can be considered that student need technology more then their previous level of studies. The main problem is that the many students cannot efficiently benefit from computer, for some students it is an extra work to involve computer in their assignments. For this reason this project aims to measure the students self efficacy level.

There are 4 research question that this paper answers:

- 1; What is the student self efficacy level at Eastern Mediterranean University (EMU) faculty of education?
- 2: Is there a difference about computer self efficacy based on the year of computer usage?
- 3: Is their a difference about computer self efficacy based on gender?
- 4: Is their a difference about computer self efficacy based on having computer at home?

IMPORTACE OF THE RESEARCH

The results of this study might be surprising there are many students at EMU who have very poor computer abilities, Even though all the department s are offering computer courses , mostly in their first year of study , students still faces difficulty to improve and transfer their knowledge on the next level . Most of the students still have difficulties preparing presentations by using computers. The suggested reason for poor computer abilities in this study is that the students are so much focused on their major area of their studies they do not put much effort to learn maximum from their computer course .This lead many of them to face lack of computer usage knowledge and poor abilities to use it as a tool for their assignment.

Page2 Simpson and payne suggests that if teachers perceive computer as power full tool in a both teaching and learning then it is expected from them to us it more frequent in there own teaching as well

(1999).It can be said that that computers are parts of people life .Universities are where student and teacher are using computer for reasearches assignments .Therefore self efficacy toward computer especially among student play very important role in motivation of student as well as there performance .

METHOD.

Operational Definition of variable

This study was designed to examine students self efficacy toward computer usage ,based on there department and gender . Independent and dependent variable of this study are as followed

Independent variable

Characteristics of the student are independent variable .There are five independent variable

- 1: Gender
- 2: Having computer in there home
- 3: Since how many years they are using computer
- 4: Took a computer course
- 5: Department

Dependent variable :

- 1: I am confident about my basic computer hardware knowledge.
- 2: I am confident about my ability to install any software.
- 3: I am confident to formed my own computer when it is necessary.
- 4: While I am using computer if I get error message I am confident to solve the problem.
- 5: If any error occur while I am using computer I feel confident if get professional help to solve it.
- 6 : I am confident about my Microsoft word very abilities.
- 7: I am confident about my Microsoft excel abilities.
- 8: I am confident about my MicroSoft power point ability.
- 9: I am confident to prepare my presentation on computer.
- 10: I avoid using computer as much as possible.
- 11: At the university they taught us well about bask computer usage.
- 12: I learned how to use computer on my own willing.
- 13: I am confident about my computer ability.

14: I use computer to use internet

15: I will be more confident if I have more computer related courses in my department.

16: I will be more confident about, if I improved my computer skills.

17: I believe that it is must to know how to use computer.

18: I thinks computer courses give to us are useless.

19: The level of computer courses offered by our department is below our ability.

20: I am scared to use computer.

Identification of population

The population of this study included undergraduate student of eastern .Mediterranean university faculty of education department of English language teaching and Turkish language teaching in fall 2007 ,2008 at northern Cyprus.

Sample

The sample of study is selected by random sampling method 70 student were selected with this method among the (EMU) faculty of education undergraduate student who are registered during fall 2007 2008 in total 36 of student were from English language teaching and 34 are from Turkish language teaching department

Instrument

For this research study 5 scale likert type of quesstionre is designed to analyze self efficacy of computer usage .There were 25 item in there instrument 5item, were related to personal information and 20 items related with self efficacy of computerusage are on series five point likert scales. The reliability alpha coefficients of the scale were 0.82

software .Despite analysis , independent sample . test one way ANOVA analysis and post hock SCHEFFE Analysis has been applied

FINDINGS

The main focus of this study was to find out faculty of education student beliefs about there own complete usage abilities. The following result have been found at end of evaluation of collect data it show that 51.41 of participants were from ELT Department and 48.6% OF participants were from .TLT department It is also indicated that 48.6% of participant were male and 51.4%were female students.

The percentage according to participants years of computer usage showed that 20% of participants are using computer since 2 year 22.9% of them are using it for 3 year 21.4% are using it for 4 year and 22.9% are using it for 5 year .4.3% are using it for 6 years and 5.7 for 7 years and finally 2.9% of them are using it for 8 years.

Result showed that 64.3% of participants have their own computer at home while 35.7% don't have own computer. Finding demonstrated that 87% of participants are confident about their basic hardware knowledge while only 13% of them have moderate knowledge about computer hardware while only 13% of them have moderate knowledge about computer hardware .On the other hand86% of participants indicated that they are highly confident about their abilities to install any software, while 14% of them are sometime able to install and sometime not. 80% of participant indicated that they are able to solve any problem if they get any error message while they are working on computer, and 20% of them sometimes can handle these kind of problem, 32% of participant seeks for professional help when any kind of error occur while 68% of them need professional help sometimes. It is founded that participants are confident about their Microsoft Word abilities. 13.7% of participants are confident about their Microsoft Excel abilities while 26% of

them are not quite confident .It shows that 72% of participants are confident about their Microsoft power point abilities while 28% of them have some difficulties .on the other hand it is indicated that all participants do prepare their presentations on computer and they do not avoid using computer.

It is found that 45% of participants are not happy about their computer courses they took from their department while 55% of them are happy. Results showed that 70% of participants improved their computer skills based on their own willing while 30 % of them improved on other ways. Also 53% of participants and students are confident about their computer abilities while 21% of them are not quite confident. Research result shows that all participant indicated that they will be more confident if they take more computer related courses from their department. They also indicated that they will be more confident about their computer usage if they improve their computer abilities and they believe it is must to know about computer. None of them thinks that computer usage given to them are useless. On the other hand 35% of the participants believed that computer courses are below their abilities while 65% of them believes that courses are good . Research result show that 75 of participant indicated that they are scared to use computer 27% of them are also sometime scared. And 66% of participant are not scared to use computer.

According to result there is significance difference between male and female students in item number 9,15,18 that are 'I am confident to prepare my presentation on computer 0.32 < .05. I will be more confident if I have more computer related course in my department significance is 0.04 < .05. I think computer course given to us are useless 0 significance is .004 < .05 respectively. There is a significance difference among departments and item 12, 19, 20 .Significance of item 12 "I learned how to use computer with my own willing" is .006 which is less than .05 therefore there is a significance difference among based on department of students . The level of computer courses offered by our department is below our abilities is .007 < .05. There is significance difference again for finally for item 20 "I am scare to use computer" significance is .000 < .05. The result indicates that there is significance difference to item 2 and 14 that are " I am confident about ability to install software " the significance level is .027 <

.05.

Page4: There is also difference between years of computer usage of students and in items 1, 2,3,4,9 and 18. Item 1 is I am confident about my basic computer hardware knowledge and its significance is $.000 < .05$. Item 2 is "I am confident about my ability to install any software" and its significance is $.000 < .05$. Item 3 is "I am confident to format my own computer when it is necessary. its significance level is $.000 < .05$. Item 4 is While I am using computer, if I get any error or message am confident to solve the problem .and it significance level is $.011 < .05$. Item 9 is "I am confident to prepare my presentation on my computer" its significance level is $.016 < .05$. Finally item 18 is I think computer courses given to us are useless. It s significance level is $.012 < .05$.

Results showed that students who are using computer for 4 years or more their means are higher then those who are using it less than 4 years for item " I am confident about my basic computer hardware knowledge" On the other hand for the item " I am confident about my ability to install any software" , students who are using computer for 4 years their means are higher then those who are using it for since 2 years . For another item " I am confident to format my own computer when it is necessary". Those students who are using it for 6 years or more their means are higher then those who are using it for less then 6 years .Finally, those students who are using it for 8 years their means are higher then rest of item . I think computer courses given to us are useless.

DISCUSSION AND CONCLUSION

The main aim of this research was to find out self efficacy level among participant students and analyze their beliefs. This study showed us that male students are more confident comparing to female student. Similar to Bimer (2000), the computer usage has been known as biased toward interests fashion of men this research showed us that females are not as confident as men are to computer .Awoleye &Siyanbola(2005) , Bimer (2000), indicated that computers have some gendered attributes that favor man in some way so that men are more likely to use computer and they are more confident. This research also showed this changes are more likely to depend on complexity of task and year of computer usage of particular

students as Busch(1995) has been found the similar results. Similar to study of Compeau and Higgins (1995) it is found that self efficacy shapes the individual beliefs and behaviour as well . It is not surprising to find out that students have different computer levels and this affects their self efficacy level. In addition to this it can be said that students with different computer skills show different self efficacy level as well.

There have been many studies done on computer self efficacy and beliefs . These research should be guide for related educational institutes to implement solution to existing problem. The main and most problem of EMU case is that all students have different level of computer abilities and it is very difficult to address all students need through one basic computer course. This might help students to improve their self efficacy and results of updates can be further study to be done on this issue.

REFERENCES

Awoloye, M.O and Siyanbola, O.W(2005). Examining level of penetrating and impact of internet usage among undergraduates in Nigerian universities a case study approach . NonPeriodicInternetArticle.Retrieved January 12,2006,from <http://www.formatex.org/pdf/17081773pdf>

Bandura .A(1977). Self efficacy :Toward unifying theory of behavioral change . Psychological review,84,191_215. Bandura ,A (1977), Self efficacy mechanism in human agency.AmericanPsychology,37,122,147.

Bimler .B.(2000), Measuring the gender gap on internet Social Science Quarterly ,81 Retrieved January 9,2007 ,from University of Texas Press Database. Bardlow,T.E, Hoch,S.J& Hutchinson ,W (2002). An assessment of computer proficiency among the active internet user : Test construction, calibration , antecedents and consequences. Journal of Educational and Behavioral Statistics,27,3Retrieved on 12 November ,2007 from JSTOR Database.

Page 5: RELATED RESEARCHES

Information is human being unsatisfied hunger since ages . It always exist and human being never stopped seeking for more of it .Knowledge become more meaningful there is process of learning. O'Hara (1998) indicated that: John Dewey noted that when people learn about a new tool they learn what is it and how to use it .When people learn new information in context of

meaningful activities they are more likely to perceive new information as a tool rather than as an arbitrary set of procedures and facts.

On the other hand another definition of information says that it is an important issue that determines the society's competition power and development status under today's economical condition.

Selwyn argues that one of main aim of educational computing is to equipped students with usage of this technology (1997). On the other hand students are tending to develop expectations about their success in future by observing their teachers most of the time. It is also discussed that self efficacy is about beliefs in one's self capability to implement and organize courses of action that are necessary to generate the given attainments from perspective of social cognitive theory. It is also mentioned in literature that computer dynamic tools for developing cognitive skills and it helps learner to develop useful learning strategies. (Caldwell,1980).

During computer education it is suggested that teacher should give an importance to understand each student learning characteristics. (Carlson and Silverman,1986). Another research suggests that in today context of people are getting familiar to computer at young ages and they are more likely to know aboyut the basic knowledge before they start their university education. There are also many studies about gender issues and its relation to self efficacy. (Durndell & Haag,2002).

Computer self efficacy is belief about one has the capability to perform a specific task. .Computer self efficacy also means a judgement on one's potential to use a computer.(Compeau and hingin1995). Also researches on gender issue computer has often , but not really always shaped the results that are indicating greater male rather then female experience use of computer. In addition to this research of Bandura on computer self confidence or self efficacy (1997) also shaped the findings that showed males as standard have more computer self efficacy than as female . Self efficacy is associated with one's performance accomplishment. The feelings of success of any task improve the self efficacy of person related to that particular task(Bandura1977;Campell& Hackett1986,) .

Also many researches discuss the attitude toward computers as part of computer self efficacy . Brock and Sulsky (1994) suggest that attitude toward computers are usually thought to be composed of two factors

which are 1 : beliefs that computers are helpful tools and 2: beliefs that computers are self directed entities . On the other hand Spott , Bowmann and Mertz (1997) claims that instructional technologies and computers have power to help higher educational faculties address increasing demands on their time and energy. In addition to this Volman and Eck (2001) suggest that computer research themes and outcomes have been changed within last decade. Zhao & Frank in 2003 indicated that concerns about slow adoption of technology by teachers and students are not new and quite wide . According to Zhao and Frank numbers of researchers considers that school, being social organizations they are directly at chances with new technologies.