

Teacher Educators' Attitude towards Computer: perspective Bangladesh

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Abstract

This study examined how teacher educators' perceive the attitude towards use of computer technology in Teachers' Training Colleges in Bangladesh. This study investigated teacher educators' computer attitudes by using the valid and reliable instruments of Loyd and Gressard's (1984) Computer Attitude Scale (CAS). The data was collected through questionnaires from 75 teacher educators of teachers' training college in the Rajshahi division in Bangladesh and eventually received 46 responses. The results revealed that the teacher educators' possessed their high attitude towards computer. It also determined that there is no significant difference between male and female in terms of their attitudes toward computer technology.

Introduction

The government of Bangladesh have made a plan to establish Information and Communication Technology (ICT) as the main vehicle of socio-economic development by incorporating effective and innovative leadership in the development, promotion and application of its science and technology. One of the main objectives of this plan is to provide guidelines for institutional arrangements or rearrangements in the research and development structure including capacity building education and training (MSICT, 2010). Determining teacher educators' attitude towards computer use is important because they are the teacher of teachers (Birisci, Metin, & Karakas, 2009). Sureshramana (2007) recommended for further research to identify the differences of teachers' attitudes by gender. Same suggestion comes from Bebetos & Antoniou (2009) to do future research to investigate gender differences on

attitude towards computer. The effort of the study is to find out the teacher educators' attitudes towards computer using as instructional tool. The study specifically investigated teacher educators' level of attitudes towards computer technology in their teaching learning process. The study finally examined whether any differences between male and female towards computer attitude.

Literature Review

Teacher educators' positive attitude towards computer is an important issue because of its being implemented as a new innovation in teaching-learning process. Now-a day teacher education programmes are required to make themselves rapidly as an adapting integrating agent of computer in teaching and learning process. The success of implementing new innovation of education in schools depends on teachers' attitude. It has been suggested that if teachers believed and perceived proposed computer programs as fulfilling neither their own nor their students' needs, they are not likely to attempt to introduce technology into classroom (Teo, 2008). In developing teachers' positive attitudes towards computers as an information communication technology is very important to ensure quality teaching in their classrooms.

Teachers' role is more challenging in technology based classroom. All of the success of implementing computer and students' achievement depend on teacher educators' attitude of using computer and their willingness. Most of the studies show that teachers gain a positive attitude towards ICT through government interventions and training programs (Balanskat, Blamire, & Kefala, 2006). In introducing new technologies into the teacher training college for teaching and learning process, a major consideration is the teacher educators' attitudes toward the technology itself (Abang Ahmad Ridzuani, Sam & Aliza Ahmad, 2001). Computer attitudes have been recognized as important factors in assisting teachers and teacher educators integrating computer technology into the curriculum (Olu, 2007). Computer is usually used as a learning tool to improve both teachers' and students' achievements. Researchers have developed ideas about teacher educators' attitudes towards computer, Internet, mobile technology and interactive whiteboard. Different studies have shown that the successful implementation of educational technologies depends largely on the attitudes of teacher educators, who ultimately determine how they are used in the classroom.

Most of the studies showed that teacher educators' gain a positive attitude towards computer. Teacher educators display moderate to highly positive attitudes toward computer use (Abang Ahmad Ridzuani, Hong Kian Sam & Aliza Ahmad, 2001).

Teo (2008) found that the teacher had positive attitudes toward the computer use in classroom teaching. This finding is also similar with the study of Ozdaml, Hursen & Ozcinar (2009); Mello (2006); Sa'ari, Luan & Roslan (2005) and Birisci, Metin & Karakas (2009). They examined the prospective elementary teachers' general attitude towards computer and Internet use. Their study showed that the prospective teachers' general attitude towards computer and Internet use were at higher level. Clarke (2007) concluded by saying that the motivation toward using new technologies developed in teacher education program. Most of the teachers realise tremendous potential computer can bring to teaching and learning and they willing to continue use computer (Nurul Atikah Abdullah et al , 2006). According to Rogers (1995) diffusion of innovation theory acceptance (decision) of innovation comes from knowledge. Norhayati (2000) also found same result in a study that the more knowledgeable group of teachers showed a more positive attitude towards the use of computer in classroom instruction.

Park & Son (2009) stated that teachers considered using the computer as essential and necessary in a period of modern technology. It seemed that they naturally accepted the use of technology as an undeniable part of instruction so their study indicates that the teachers' perceptions and attitudes toward computer are generally positive as Yushau (2006) found in his study among mathematics professors at KFUPM positive attitudes toward computers and towards the use of computers in their academic activities and he added that working experience is a factor towards computer attitude.

Majority of the trainees started the course with positive attitudes to the use of ICT in subject teaching. Although some trainees felt that they had mastered the absence of an ICT role model. Almost without exception the trainees felt that this was one of the key factors influencing development in the ability to use ICT in subject teaching (Haydn & Barton, 2007). This is why Turkish science teachers have a favourable attitude towards computer. The teachers agreed with statements about the effect of computer on teaching and learning statements. Science teachers got highest scores from Effect of computer on teaching and learning factor and moderately high from Obstacles to Implementation of computer (Cavas et al. 2009). A research study was administered in Universiti Putra Malaysia (UPM) and this study investigated that the trainee teachers had the confidence to integrate computer technology in instructional purposes and they have positive attitudes about the integration of

computer in teaching-learning process. They also believed that they had high confidence in using some of the software for teaching purpose (Shamsiah Mohamed and Ab. Rahim Bakar 2008). Most of the participants agree with this statement and they added that computer technology to be useful and it can be concluded that the participants believed that using computers would actually enhance their job performance (Sa'ari, Luan & Roslan 2005).

The computer as a learning tool should use similar regardless of male and female teachers in classroom teaching. Although many research studies confirmed that there are several factors affecting computer attitude such as gender, computer experience, age, and socio-economic status. Among them gender is the most studied factor. However, research about the effects of gender on attitude towards computers provided conflicting results (Pamuk, & Peker, 2009) previous results of the study (Busch, 1995) demonstrate that the most important predictor of computer attitude is previous computer experience and encouragement. But when controlling for these variables the researcher found there is no gender difference in computer attitude. However, prior study of the field (Ozdaml, Hursen, Ozcinar, 2009) found that there was a significant gender differences in attitudes towards computer as instructional technology. Another study also sought with this result is the computer knowledge and use in education in terms of gender was having statistically difference (Tezci, 2009).

On the other hand researchers found that there were no significant statistically difference in terms of attitude toward computer. Prospective elementary teachers' general attitudes towards computer and Internet use are at higher level in terms of gender and there is no significant difference between male and female (Birisci, Metin, & Karakas, 2009). Abang Ahmad Ridzuani, Sam & Aliza Ahmad, (2001) also did not get any significant differences in computer use based on gender. They concluded that gender may not be a significant issue in the context attitude of computer technology.

The research showed that the female teacher had a better attitude about technology than their male colleagues (Charlotte, Dale & Jan.2000). The contrast result was found by Nicholas & Jeffrey Maiden (undated); they found in their study that there are no significant differences by gender towards computer attitude. Supporting this result Deniz (2007) found in Turkey among prospective classroom teachers there is no significant difference between male and female towards computer technology as instructional tools. The difference in the attitude towards computer technologies between male and females was significant. Male were twice more likely than female to feel more confident with computer technology (Khaled Alshare; Musa Al-Dwairi; Iman Akour 2003). But other article (Hajah Rugayah Hj. Hashim

& Wan Narita Mustapha 2004) sought female respondents have more positive computer attitudes than males did. To increase attitude and frequency of use one semester computer training was organized in structured environment but the gender gap were not completely wiped out, however ; female students still had less positive attitude towards computer than male students. The explanation of such result is that the gender gap in working with computer is created and influenced by multiple factors; therefore no single solution will be eliminated (Shashaani, 1997).

Mizrachi & Shoham (2004) investigated in Israel among B.Ed students teachers training college and found there are no significant differences between gender groups in regard to computer attitude. This is similar result with another studies (Luan, Fung & Hanafi, 2008) deployed on student teachers in public university in Malaysia and indicated that there was no significant gender difference in the attitudes toward the Internet but instead; it offered some evidence that the gender gap in attitudes towards the Internet was declining.

A study was conducted to find out if there were any differences between male and female science teachers in Turkey towards computer on teaching and learning process. The result showed that there were no significant differences between females' and males (Cavas et al. 2009; Teo, 2008). Computer attitudes are not only affected by gender there are many factors those can affect towards computer attitude. Social status also is a factor for computer attitude, like township schools would have a less positive attitude than students from the upper and middle class schools. Although no significant gender differences were found in students' computer attitude (Bovee, Voogt, & Meelissen, 2007).

Results

The instrument was constructed with two types of statement, eight positive statements and nine negative statements but for analysis the researcher sort this statement into two groups positive statement was encoded 1-4 as strongly disagree- strongly agree with positive statement and negative statement was encoded 1-4 as strongly agree- strongly disagree with negative statement, just reverse. In this study teacher of teachers' training colleges (TTC) showed their positive attitude. The total mean of attitude is 3.28 Where 4 represents highest level of attitude towards computer technology. It is important that the highest mean of attitude is 3.78 with the negatively stated item that is "Computer technologies are of little value in education". The teachers stated with strong negative answer, so the teachers of teachers' training college showed highest level of attitude towards

“computer technologies are of big value in education”. The second highest mean of attitude is “computer can improve quality of education (3.39) then “computer are appropriate for my profession” 3.37, “importance of computer use for success” 3.37 and safety of computer 3.37. But they showed their lowest level of attitude towards item 2 and 4 which is not clearly mentioned about education. It is mentionable that the teachers of TTCs showed their highest level of attitude towards computer technology when it is used for instructional purposes.

The result gender variance also shows that the Leven’s test indicates that it is not significant $p > .05$, so equal variance is not assumed. The t-test is not significant $t(42) = 1.25$, $p > .05$ this is why this result is not able to reject null hypothesis. There is no significant difference between male and female towards computer attitude, the attitude mean of male and the attitude mean of female have no significant difference. The attitude mean of male is 3.31 and the attitude mean of female is 3.19. So it can be justified that the level of computer attitude of male and female is same.

Conclusion and Recommendation

Attitude is the most important factor for computer. To address this question after measuring it was found that the level of computer attitude of teacher educators is high. But they felt highest positive computer attitude on educational value of computer technology (item 14). It indicates that the teacher educators are well informed about value of computer technology.

To preserve financial investments in technology infrastructure and to prepare students for the 21st century, administrators must look to teacher training and technology standards (Montgomerie and Irvine, 2001). Because teacher training in computer technology as an instructional tool can hold teacher educators’ attitudes toward computer and confidence with technology and can also provide them with skills that they did not previously have, although had positive attitude. At the level of policy maker, administrator and teacher they seems to be a need for a clearer understanding of what it means to integrate ICT into instruction and the goals associated with ICT integration.

This study involved only three government teachers’ training colleges out of fourteen. So it is difficult to generalize on teachers’ training colleges in Bangladesh. So there is a scope for further research with a large population with the effect of age and having computer at home, a research may be conducted in the field of secondary education and Madrasah as well.

Future research should focus on effective ways of providing professional development related to ICT integration, perhaps using the current study as a guideline.

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