Chapter 5

Conclusion
5.1. Introduction

In the previous chapter, the statistical results of the study were objectively reported. Two types of statistics regarding the study variables were presented: descriptive and inferential. Descriptive statistics of the variables served to present the data in a clear, logical and comprehensible manner. These statistics were meant to observe and record the patterns resulting from an examination of the means and standard deviation of the variables involved. This procedure proved to be helpful, especially when the compared variables were not statistically significant but showed underlying trends. The data were also presented in tables and illustrated by graphs. Inferential statistics were used to test the relevant hypotheses and decide whether to accept or reject these hypotheses and hence make inferences about the data. The current chapter will primarily focus on the conclusion, implications, recommendations, and summary of the entire study.

5.2. Overview of the chapter

In chapter five, the researcher tries to interpret, examine and qualify the results of the investigation and draw inferences from the results. It includes the following sections. First, the hypotheses from the research objective will be presented and the relevant statistical procedure used to test each procedure which in turn was used to test each hypothesis along with its results will be restated. This will be followed by a discussion based on the analysis performed and results achieved. Second, the implications of the study will be presented. In this section, the researcher will discuss the kind of impact the results can have on the field of study and its contributions. In the next phase the pedagogical implications will be discussed and recommendations for English teaching will be put forward. Some suggestions for further research will be made. And finally, a summary of the entire work will be presented in such a way that it can serve as a stand-alone document.

5.3. Research objectives and hypotheses

In this section of the chapter the findings of the research are discussed and possible conclusions and inferences are drawn from these findings by the restatement of the hypotheses.

5.3.1. Restatement of the first hypothesis

In pursuit of the first research question, these hypotheses were formulated as follows:
H0: perceived usefulness is not an affective factor for ICT adoption among English teachers.

In order to investigate the first null hypothesis, a one sample t-test was used after the distributions which proved to be normal. The results revealed that based on the table number 4.25 above obtained mean (60.751), and for the fact that it is bigger than the population mean (45), it can be stated that from the point of view of English teachers in Chandigarh, 'perceived usefulness' for the ICT adoption is one of the factors affecting the ICT adoption and use in English language teaching. So, the first hypothesis for the research is confirmed and the null hypothesis is rejected.

Discussion:

In compliance with our study, Yuen and Ma (2002) also discuss the importance of perceived usefulness, stating that this factor influences computer acceptance to a much greater extent than perceived ease of use. They add that a computer system is useful only if it is applied to a context, and that without understanding how computers can be integrated into teaching, teachers may not perceive computers as useful at all. A study by Robertson et al. (1996), discussed in Mumtaz (2000), found that some teachers who were given palmtop computers to use remained unconvinced about the computer’s potential, and concluded that training should ensure that teachers are made aware of the range of uses and possible benefits of ICT. Furthermore, our study found that English teachers have a high positive view towards ICT usefulness in English language teaching.

5.3.2. Restatement of the second hypothesis

In pursuit of the second research question, the hypothesis was formulated as follows:

H0: supporting and motivating the teachers to adopt and use ICT for teaching English is not a factor affecting ICT use in English classes among English teachers.

Based on the table number 4.27 and the obtained mean (35.225) and considering that it is bigger than the mean for the population (24), it can be stated that from the point of view of English teachers in Chandigarh city, supporting the teachers to use ICT in their English classes is a factor affecting ICT adoption in English classes. So, the research second hypothesis is confirmed and the null hypothesis is rejected.
Discussion:

Cuban (1999) supports this by pointing out that in the schools which cannot afford technicians, there are often, “software glitches and servers that crash, torpedoing lessons again and again.” Once the breakdowns do occur, a lack of technical support may mean that the equipment remains out of use for a longer period of time.

Dudeney and Hockly (2007) mentioned the term “technophobe” (p.8) referring to teachers who have hesitations towards utilizing new technologies. In their view, “a large part of the negative attitudes teachers have towards technologies is usually the result of a lack of confidence, a lack of facilities or a lack of training, resulting in an inability to see the benefit of using technologies in the classroom” (p.9). As stated by Garett (1991), “conservative teachers fear that the technologies will weaken or interfere with their control of the class are willing to consider only those technologies-based materials which perform electronically the most traditional teaching tasks” (p.92). On the other hand, skillful, knowledgeable, confident and enthusiastic teachers may face some external restrictions concerning technologies integration such as lack of technical support, curriculum restrictions or lack of the suitable technological means in their schools (Usluel, Mumcu, & Demiraslan, 2007).

5.3.3. Restatement of the third hypothesis

In pursuit of the third research question, the following hypothesis was formulated as follows:

H0: Ability to use ICT is not an affective factor for ICT adoption among English teachers.

Based on the table number 4.29 and the obtained mean (50.322) and for the fact that it is bigger than the mean for the population (36), it can be stated that from the point of view of English teachers in Chandigarh city, English teachers’ ability to use ICT in their English classes is a factor affecting ICT adoption in English classes. So, the third hypothesis is confirmed and the null hypothesis is rejected.

Evidence suggests that the majority of teachers who reported negative or neutral attitude towards the integration of ICT into teaching and learning processes lacked knowledge and skills that would allow them to make “informed decision” (Al-Oteawi, 2002, p.253, as cited in Bordbar, 2010).
Discussion:

In line with our study Denson (2005) conducted a research on teachers’ attitudes towards technologies and revealed that the level of integration of technologies into lessons depends on the skill levels of teachers in the use of technologies. Teachers with higher skill levels integrated technologies in their classes more frequently.

According to Pelgrum (2001), the success of educational innovations depends largely on the skills and knowledge of teachers. Also, he found that teachers’ lack of knowledge and skills was the second most inhibiting obstacle to the adoption of ICTs in schools. Similarly, in the United States, Knezek and Christensen (2002) hypothesized that high levels of (attitude), skill and knowledge (proficiency), and tools (level of access) would produce higher levels of technology integration that will reflect on student achievements positively. Their model postulated that educators with higher levels of skill, knowledge, and tools would exhibit higher levels of technology integration in the classroom. Moreover, Berner (2003) studied the relationship between computer use in the classroom and seven independent variables: perceived relevance; desire to learn; emotional reaction to technology; beliefs about computer competence; beliefs about technology; administrative support; and peer support. He found that the faculty’s belief in their computer competence was the greatest predictor of their use of computers in the classroom. Therefore, teachers should develop their competence based on the educational goals they want to accomplish with the help of ICT.

Based on the theoretical and experimental foundation of the present study and considering the first to third derivational hypotheses in which the proposed factors affecting ICT adoption in English teaching were tested using one sample t-test and were significant, it can be stated that those factors include: perceived usefulness of ICT on English teaching, supporting and motivating English teachers to use the ICT in their English teaching profession and the ability English teachers have in their English classes. The conceptual framework for these factors was presented in the previous chapter.

So, based on the theoretical and experimental foundation of the present study and considering the first to third derivational hypotheses in which the proposed factors affecting ICT adoption in English teaching were tested using one sample t-test and were significant, it can be stated that those factors include: perceived usefulness of ICT on English teaching, supporting and motivating English teachers to use the ICT in their English teaching profession and the ability English teachers have in their English classes.
So, based on the above depicted factors, we can suggest the following conceptual model for them:

![Diagram showing the conceptual model]

**Figure 5.1: The conceptual model for the factors affecting ICT adoption among English teachers from the teachers’ point of view**

Drent and Meelissen (2007) conducted a study about factors which stimulate or limit the innovative use of ICT by teacher educators in the Netherlands. The study used questionnaires for 210 teachers and interviews for 4 of those teachers who had responded. Their findings showed that several factors such as a student-oriented pedagogical approach, a positive ICT attitude, computer experience, and personal entrepreneurship of the teacher educator have a direct positive influence on the innovative use of ICT by the teacher. Also, comparison between these factors in predicting computer use identified that attitude toward computer contributed more in explaining ICT use by teachers.

Moreover, Berner (2003) studied the relationship between computer use in the classroom and seven independent variables: perceived relevance; desire to learn; emotional reaction to technology; beliefs about computer competence; beliefs about technology; administrative support; and peer support. He found that the faculty’s belief in their computer competence was the greatest predictor of their use of computers in the classroom.
teachers should develop their competence based on the educational goals they want to accomplish with the help of ICT.

5.3.4. Restatement of the fourth hypothesis

In pursuit of the fourth research question, the following hypothesis was formulated as:

$H_0$: the proportion for the considered factors affecting ICT adoption to determine English teachers attitude towards ICT is not different.

Based on the data presented in the table number 4.32 and the degree of beta coefficient entered to the regression, it can be observed that the proportion of each factor to determine the attitude towards the use of ICT in English language teaching is: perceived usefulness of ICT in English language teaching (0.474), supporting and motivating the teachers to use ICT in English classes (0.327) and the ability of the teachers to use ICT in their English classes (0.381).

5.3.5. Restatement of the fifth hypothesis

In pursuit of the fifth research question, following hypothesis was formulated as:

$H_0$: pre-service and in-service ICT related courses cannot affect the teachers' attitude towards using ICT in English classes.

Based on the data presented in table number 4.33 in the previous chapter and observed amount of F and the level of significance for the test ($P= 0.443$) and for the fact that it is bigger than 0.05 ($p<0.05$), we can say that there is no significant difference between the mean for different groups. It means that the amount of means in attitude towards ICT in English teaching for different groups of the teachers who had ICT related training courses as: less than 10 hours, between 10 to 20 hours and more than 20 hours, are not different. So, the hypothesis of the research was rejected and null hypothesis was confirmed.

Discussion:

This analytical result which is also supported by previous research (Branch, 2003; Swain, 2006) does not predict actual technology use during practice teaching. Goktas et.al (2009) investigated the main barriers and possible enablers for integrating ICTs in Turkey's pre-service teacher education programmes. The data were collected by means of questionnaires from 53 deans in schools of teacher education (STE), 111 teacher educators,
and 1,330 prospective teachers, and additionally from interviews of six teacher educators and six prospective teachers. The findings indicate that the majority of the stakeholders believe that lack of in-service training, lack of appropriate software and materials, and lack of hardware are the main barriers for integrating ICTs in pre-service teacher education programmes. So, these findings are contrary to our study which shows that there is no difference between the means of three groups who have passed ICT related training programmes.

Another study done by Pasquale (2002) is opposite to our study. He compared and contrasted eight novice and expert teachers. The results demonstrated that “Indeed, those novice teachers who had received ‘state of the art’ training in classroom technologies use were less comfortable in their implementations than the more experienced who had no formal training with computers but had a great deal of classroom experience.”

The experience taken by Egorov, Jantassova, & Churchill, (2007) from the course implementation suggests that trainee teachers not only developed some useful skills to use technology with their own students, but also developed an understanding that information technology is a necessary tool in contemporary second-language education, which is in opposite direction of our research.

5.3.6. Restatement of the sixth hypothesis

In pursuit of the sixth research question, the following hypothesis was formulated as:

H0: The attitude of male and female English teachers towards the use of ICT in English teaching is not different.

According to the data presented in the table number 4.34, the amount of mean in female English teachers towards using ICT in English teaching equals to 143.300 and the amount of mean in male English teachers towards using ICT in English teaching equals to 141.881; so, it can be concluded that there is no significant difference between these two means.

Discussion

There is some evidence to suggest that teachers’ gender has an effect on the degree to which they use ICT, with male teachers making more use of ICT than female teachers, and with female teachers reporting greater levels of computer anxiety than male teachers. This
may have a significant negative effect on the use of ICT in primary schools, where there are more female teachers than male teachers. (European Commission, 2003; Bradley and Russell, 1997)

However, some studies revealed that gender variable was not a predictor of ICT integration into teaching (Norris, Sullivan, Poirot & Soloway, 2003). In a research conducted by Kay (2006), he found that male teachers had relatively higher levels of computer attitude and ability before computer implementation, but there was no difference between males and females regarding computer attitude and ability after the implementation of the technology. He claims that quality preparation on technology can help lessen gender inequalities.

It was also found that there was significant difference in the male and female teachers’ knowledge of ICT with the males demonstrating a higher level of knowledge than their female counterparts. (Fakeyeh, 2010)

The study done by Wong and Hanafi (2007) was in compliance with ours in which there was not any significant difference between the means of male and female teachers regarding their attitude towards the technology.

5.4. Conclusion

The rise of technologies has complicated its adoption and integration by teachers in classroom. The effective integration of technology into classroom practices poses a challenge to teachers than connecting computers to a network. For successful integration of ICT into teaching, the review highlights factors that positively or negatively influence teachers’ use of ICT. These are personal, institutional and technological factors. Research has revealed that these factors are related to each other. On a personal level, there are numerous factors that influence teachers’ use of ICT. Teachers’ feelings, knowledge and attitudes influence their use of ICT in teaching. Research has shown that teachers’ attitudes towards technology influence their acceptance of the usefulness of technology and its integration into teaching (Huang & Huang, 2009). If teachers’ attitudes are positive toward the use of educational technology then they can easily provide useful insight about the adoption and integration of ICT into teaching and learning processes. At the school level, factors such as support, funding, training and facilities influence teachers’ adoption and integration of technologies into their classrooms. Teachers’ professional development is a key factor to successful
integration of computers into classroom teaching. ICT-related training programmes develop teachers’ competences in computer use (Bauer & Kenton, 2005; Franklin, 2007; Wozney et al., 2006), influencing teachers’ attitudes towards computers (Keengwe and Onchwari, 2008) and assisting teachers to reorganize the task of technology and explaining them how new technology tools are significant in student learning (Plair, 2008). On the technological level, for successful adoption and integration of ICT into teaching, teachers must perceive technology as better than previous practice; consistent with their existing values, past experiences and needs; ease to use, can be experimented with a limited basis before making a decision to adopt. Finally, the results of the innovation become visible to the others. Many teachers are hesitant to change an existing programme to something they only know through discussion and reading and not through observation. These three characteristics or attributes of teachers’ adoption and integration of ICT into teaching provides information of factors supporting their use of technology as well as barriers to ICT integration. The key factor in the studies is teachers’ attitudes toward technology or intentions to use technology in their classrooms. If teachers have negative attitudes toward technology, providing them with excellent ICT facilities

5.4.1. Enablers

Enablers or the factors affecting the adoption:

Unlike the previous studies (Pavlou and vryondies, 2009) which assert that the teacher’s attitude towards the technologies and ICTs is not positive, our study, based on the teachers’ views, proved that the more teachers are supported by external factors (school, parents, colleagues), the more they adopt the ICTs as a medium of instruction. As it can be drawn from the following figure based on teachers’ attitude, the authorities and curriculum designers should arrange for more training courses regarding perceived usefulness, ability and support.
Results show that although English teachers perceive ICTs as useful tools in ELT and their classes; yet the adoption and use of ICTs is not acceptable to their perception. The other factors which act like intruders can be investigated through interviewing some of the participants who were made ready for using it by the researcher.

5.4.2. Barriers

In order to consolidate the results of the study and find out the reason why some teachers are not ready and resist to adopt ICT during their class time, the researcher decided to interview some of them. He chose some of the teachers who participated in the study and interviewed them one by one in a span of one month.

One of the factors always claimed by English teachers was that they could not use ICTs during their class time in the region due to the fact that the government of India and the CBSE board give predetermined guidelines and regulations which become a burden for them and make they always complain about them.

Some of them feel inadequate to use ICTs during the class time because they feel incompetent. A further hindrance is that increasing investment in technology infrastructures has not been matched by investment in time and resources to develop new ways learning and teaching.
In spite of the factors that encourage teachers’ use of ICT in classrooms, several studies have conducted empirical research on factors (barriers) that discourage the use of ICT by teachers. Balanskat et al. (2007) categorized the factors that prevent teachers from ICT use into teacher-level, school-level and system-level barriers. Teacher-level barriers include lack of teacher ICT skills; lack of teacher confidence; lack of pedagogical teacher training; lack of follow-up of the new and lack of differentiated training programmes. The school-level barriers comprise absence of ICT infrastructure; old or poorly maintained hardware; lack of suitable educational software; limited access to ICT; limited project-related experience; lack of ICT mainstreaming into school’s strategy and the system-level barriers include rigid structure of traditional education systems; traditional assessment; restrictive curricula and restricted organizational structure.

Finally, factors (barriers) that discourage the use of ICT by teachers were also reviewed. The factors were categorized as teacher-level, school-level and system-level barriers. Teacher-level barriers include lack of teacher ICT skills; lack of teacher confidence; lack of pedagogical teacher training; lack of follow-up of the new and lack of differentiated training programmes. The school-level barriers comprise absence of ICT infrastructure; old or poorly maintained hardware; lack of suitable educational software; limited access to ICT; limited project-related experience; lack of ICT mainstreaming into school’s strategy and the system-level barriers include rigid structure of traditional education systems; traditional assessment; restrictive curricula and restricted organizational structure. Knowing the extent to which these barriers affect individuals and institutions may help in taking a decision on how to tackle them (Becta, 2004).

5.5. Pedagogical Implications for Indian ESL Context

In the light of its findings, this study has several useful implications and suggestions and future research. However, the remarks thereof are not meant to be viewed as conclusions rather suggestions which are based on the researcher’s understanding and the conclusions of the investigation.

Due to the government-driven ICT policy, most Indian secondary and senior secondary schools have computers with Internet access in each classroom, as well as multimedia labs that are equipped with computers, LCD projectors, and other technology for education.
Despite this well-developed technology infrastructure, however, teachers are lacking guidelines on how they can make the best use of the present technology for their class use. Through the literature review, I attempted to learn more strategies on how technology can be wisely used to enhance student language learning that is more interactive and at a higher level of thinking based on diverse cases of technology-integrated classrooms.

Examining the uses of technology in the ESL/EFL classroom through a literature review, I had assumed that more research on the effective uses of technology in the classroom could be conducted to guide EL teachers to improve their teaching. Based on what I realized during the literature review, I would like to suggest the following for future practices in the Indian EL classroom.

First, technology integration should always go with a firm theoretical base that carefully considers the effectiveness of language teaching and learning. Reviewing the cases of other countries, I noticed that the technology uses in the EFL classes had gradually changed with the paradigm shift from the behaviorist’s to the constructivist’s way of looking at pedagogy. That is, technology has been the medium supporting the educational shift; first, an educational paradigm shift, followed by technology application. Therefore, from most of the studies, I saw the theories consistently reflected on the overall application the technology uses. On the contrary, in Indian government initiative, technology advancements have led educational innovation before theoretical discussions become mature. Accordingly, there are some teachers in the field who cannot keep up with the new teaching and learning theories. Projecting the copy of the textbook through the latest project cannot be called an educational innovation. The Indian government should invest as much money they have invested on technology innovation on teacher re-training programmes.

Second, the number of teacher-researchers should be increased to improve teaching and learning in real EL classes. I recommend that more teachers be given opportunities to be trained through systematic programmes cultivating their skills in ICT use. Schools are the very places where educational reform starts, and the teachers should be the first in line of the new movement by researching how students in the real field can best learn with technology. This will facilitate balanced matches between theories and practice to bring realistic innovations into EFL classrooms.

Third, technology use in the classroom should encourage students to develop higher levels of thinking skills. EL classes focusing only on the college entrance examination cannot provide students with enough opportunities to practice authentic language uses. EL
classrooms should be the places where students can enjoy thinking and creating their own interactions based on meaningful contexts, not the places where students cram fragmented knowledge through rote memorization.

The teacher has an important role to play in the teaching/learning paradigm shift, with ICT facilitating the development of a higher level of cognitive skills in evaluating arguments, analyzing problems and applying what is learnt.

Although teachers play an important role in the learning environment, they are often not consulted regarding changes to teaching learning procedures (Bangkok, 2004). In fact, the teachers’ needs under changing conditions have to be continuously assessed and activities to satisfy these have to be developed. So, professional development is necessary for teachers to enable them to effectively use technology to improve student learning. Staff development should be collaboratively created, based on faculty input and school needs. It must prepare teachers to use technology effectively in their teaching.

According to Fullan (1992), teachers who have a strong engagement towards their own professional development are more motivated to undertake activities, which lead to a better understanding of the goals of an innovation. Similarly, Fullan pointed out that teachers who are actively involved in their own professional development are more able to implement changes in their teaching.

Hence, having a recognition system for innovative and effective use of ICT integration in schools will motivate teachers to use ICT in teaching. For example, formal certification of in-service professional development that leads to diplomas or degrees could provide an incentive for teachers to upgrade and update their skills in and knowledge of ICT integration.

Another study done by Ahluwalia and Gupta (2011) shows that English teachers are not ready to adopt ICTs in Panjab, India. English teachers need to not only possess such basic ICT skills as word processor, PowerPoint, video editor and access to the Internet, but also develop pedagogical knowledge to efficiently integrate ICT into English curriculum. The integration of ICT will lead to diversification not only in English content, contexts and pedagogical methods, but also in teaching environment. ICT will extend the boundary of English teaching and characterize it as interactive, flexible and innovative.
School heads and committees should focus on special cooperative sessions for ICT use to be held on a regular basis during English teachers’ free time and encourage the teachers to resolve their problems and issues facing in the class regarding ICTs.

At least, one knowledgeable and active ICT expert should be present all the time when teachers are using the technologies in order to assist them. It is much more effective when the expert provides the teachers with some predetermined useful websites for English teaching recommended by any valid source.

Some websites for downloading audio and video files:

- www.youtube.com • http://teachertube.com • www.engvid.com
- www.bbclearningenglish.co • www.britishcouncil.org/kids.htm •
  www.britishcouncil.org/central.htm • www.bestofgooglevideos.com

Besides, enough time allotted to use of ICTs in the school calendar for English teachers will motivate them to use ICTs enthusiastically.

5.6. Suggestions for further studies

The present work documented that from the point of view of ESL context teachers, there are some factors affecting the adoption of ICTs among English teachers. During the course of the research, many more questions arose and required more investigations. Some of these areas are outlined below.

- Actual ICT use of the teachers can be investigated and compared with the teachers’ perceived usefulness or total attitude towards the factors affecting the adoption of ICT by the application of a co-relational study.

- The scope of the present study is limited to the city of Chandigarh. Another study can be conducted in which a researcher can choose a wider population. In that case which the result can be generalized logically.

- Future research can focus on the relationship between the teachers’ attitude toward the technology and their actual use of them during their profession.
As the data exists co relational study can be done to find out the relationship between teachers’ perceptions of ICTs and their actual use of it.

Another experimental research can be done using any kind of ICT tools in order to find out any effect on different skills such as reading, speaking, listening, writing or pronunciation.

In another comprehensive research the researcher can make a survey or observation interview or both to find out the barriers and obstacles the teachers encounter during their career to use ICT and propose some materials or guidelines for the teachers.

A topic for further research may also be an investigation of the correlation between English teachers' use of ICT and student achievement.

Other researches can be done to investigate the students’ perceptions and the factors affecting their tendency toward using ICT in language learning process.

A researcher can interview the same teachers in order to see how they are using and implementing the technologies in their classroom. The result of such a kind of study would result in many beneficial points in which the ICTs are being used in ESL context.

As the study is limited to some important factors like “perceived usefulness”, “support” and their “ability in ICT”, other factors in future study should be included in the study. So, in order to verify if other reasons to adopt the ICT in ELT exist, one can interview the principals and authorities and gather the related reason. Other factors can be considered using more review literature in the field.
In another study one can do a content analysis of the course books in English classes at schools and find out if the materials are adapted to the technology. Interviewing and observing the real ICT use will reveal if they are restricted to some specific regulations, in a short time.

Regarding the proper use of the mentioned technologies in the present study, one can observe some classes to have a close look at the condition in which technologies are being used.

In the present study the main objective was to find out the teachers’ perception about the factors affecting the ICT adoption. Other studies can be done to find out actual ability and special ICT literacy English teachers possess because without knowing their real ability to use ICTs, one cannot delve into other questions.

In another study the researchers can make a questionnaire in which s/he can elicit the teachers’ response about the purpose of the use of ICT in their classes; so as to be able to find out whether these tools are being used for the sake of English teaching in the classroom or only for limited purposes like organizing the scores or personal uses.

Another factor which is important in ICT adoption is student computer literacy skills. It is important to determine whether they have keyboard skills, navigation skills or general IT (information technology) awareness. For Example, students who master keyboard skills may dominate the class and surpass the other students who had low experience in keyboard skills. So, in other empirical studies, one should analyze the students’ part as well.

Another study can be conducted to find out English language teachers’ real ICT knowledge. It seems that unlike their positive perceptions toward ICT tools, many of them know only a little about them. Only a few of the English teachers know how to use synchronous and asynchronous CMCs properly and efficiently in their classes.
Regarding the effectiveness of any ICT tools investigated in this study, a researcher can do an experimental research by which s/he can investigate the effectiveness of the tool on a specific sample of learners. As an example, one can investigate the effect of Social networks, wikis, emails or any other ICT tool (synchronous or asynchronous) on the learners’ interaction, vocabulary, etc.

In the present study only the difference between the means related to total attitude is analyzed. Another study can be conducted to find out the differences between them in different groups.