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Iranian EFL Undergraduates' Views on ICT-Based Learning

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Abstract: Recent developments in information and communication technology (ICT) offer new opportunities for rapid and efficient information transfer through electronic systems such as computer, the Internet, etc. In the current educational system of Iran, ICT has not been as extensively implemented as in other countries. High costs associated with implementing these technologies prevent educational systems from making appropriate use of them. The present article reports an investigation of Iranian EFL undergraduates' views on ICT-based learning methods including all technical means used to handle information and aid communication, in comparison with traditional learning methods (e.g. lectures, tutorials etc.). Focus group interview was used to investigate students' opinions and perceptions toward ICT and traditional methods. Students were allowed to talk freely with other group members. The present paper uses Krueger's (1994) framework analysis, but also incorporates some key stages of framework analysis described by Ritchie and Spencer (1994) including the five key stages of familiarization: identifying a thematic framework, indexing, charting and mapping and interpreting. The findings suggest that Iranian undergraduate learners preferred ICT-based learning methods despite the lack of enough facilities in their learning environment. Further findings and implications are discussed in the paper.

Key words: ICT-based learning · Focus group interview · EFL undergraduates · Iranian context

INTRODUCTION

New technologies have presented new opportunities for educational systems around the world. At the same time the advent of technology has caused the emergence of new techniques and methods in different educational settings. It can be said that new technologies are invaluable in a century considered as the century of information and in the world where knowledge has an ever-changing and highly sophisticated nature. ICT stands for Information and Communication Technology including technologies such as computers, the Internet and broadcasting technologies (radio and television). As is defined by Gay and Blades (2005), ICT includes the use of equipment and programs to access, retrieve, convert, store, organize, manipulate and present data and information [1]. Information and communication technology has affected all aspects of human life [2]. This paper attempted to investigate Iranian EFL undergraduates' attitudes toward the integration of Information and Communication Technologies into English learning.

Inquiry is a seeking for truth, information, or knowledge. People start seeking truth and information from the time when they come into this great and undiscovered world until they die. Traditional educational systems ignored this inherent need avoiding any kind of inquiry and making learners who listened to and repeated material received without any question or critical thinking. But human education has undergone great changes and significant innovations. One of these innovations is related to a method of teaching in response to the limitations of traditional educational trends that is called inquiry-based learning. Inquiry-based learning is an instructional method developed during the discovery learning movement of the 1960s. It was developed as a

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reaction to the experienced failure of more traditional forms of instruction, where students were supposed to memorize materials they received [3]. Inquiry-based learning as is explained by Lane (2007) is a research-based learning that actively involves students in the exploration of the content, issues and questions covered by an educational context or concept [4]. Today, the goals of education found in modern curricula centre on inquiry-based learning where developments in ICT have been most beneficial [5]. Chavez (1997) argued that the Internet and computer usage can impact positively on critical thinking, problem solving, prompt feedback and collaborative instruction [6]. ICT can engage learners more actively in the learning process through moving away the teacher-centered approach in teaching to a more learner-centered approach and through providing the opportunity of exploration and discovery for learners.

ICT has become, within a very short time, one of the basic building blocks of modern society. In many countries understanding ICT and learning its basic skills is regarded as one of the most important parts of educational systems. Haddad (2002) explains that ICT can enhance the quality of education in several ways: by increasing learner motivation and engagement, by facilitating the acquisition of basic skills and by enhancing teacher training [7].

According to Liu (2009) technology has an important position in our society affecting our life more and more [8]. The widespread use of ICT resulting from its critical role in the modern life has lead to various investigations concerning attitudes toward ICT. This paper attempted to investigate Iranian EFL undergraduates' attitudes toward the integration of Information and Communication Technologies into English learning. Growing interest in learning English because of its significant role in people's personal and professional lives has stimulated thinking about the important point of how technology can help meet EFL learners' needs. But it seems that the use of computers and the Internet in Iran is still limited as the result of low familiarity with the advantage of using technology in education and because of the high costs of access. More specifically, the following questions were explored in the current research.

- What are the attitudes of Iranian EFL undergraduate students toward ICT?
- What are the attitudes of Iranian EFL undergraduate students toward traditional learning methods?
- To what extent do students use ICT in their current learning?

MATERIALS AND METHODS

Participants: A focus group is, according to Lederman (Thomas *et al*. 1995), a technique involving the use of in-depth group interviews in which participants are selected because they are a purposive, although not necessarily representative and sample of a specific population [9]. Participants in this type of research are, therefore, selected on the criteria that they would have something to say on the topic, are within the age-range, have similar socio-characteristics and would be comfortable talking to the interviewer and each other [10]. In the current research, the sample size was limited to eight undergraduate EFL students at Behshahr Payam-eNoor University at the age range of 20 to 24.

Instrumentation: This study used focus group interview for eliciting the required data from the participants. A focus group is defined as "a carefully planned series of discussions designed to obtain perceptions on a defined area of interest in a permissive, non-threatening environment" (p. 5) [11]. Focus-group interviews are becoming increasingly popular in research aiming at exploring what individuals believe or feel as well as why they behave in the way they do. A focus group interview is an interview for one-half to two hours with a small group of six to eight people on a specific topic [12]. The participants are typically a relatively homogeneous group of people who are asked to reflect on questions asked by the interviewer. It is not necessary for the group to reach any kind of consensus. Nor is it necessary for people to disagree. The aim of this interview is to get people's view about a specific subject. Some of the questions asked in interviews used in this study were as follows:

- Do you have access to ICT at home? How accessible are the ICT to you throughout the day?
- Please describe how you most frequently make use of ICT at your learning context. We don't want to know all you do, just what you most often do.
- What, if any, impact has the use of information technology had on your learning?
- In what ways has your learning improved or changed through the use of technology?
- What barriers have you encountered in trying to use technology in learning?
- What does technology allow you to do that would have been impossible (or at least more difficult) while technology was not widely available in your learning context?

Procedure: Focus groups were conducted with the help of two researchers. One of the researchers conducted the actual interview by asking the questions and the other recorded the conversations and took notes on various aspects of the interactions (such as passionate comments, body language, or non-verbal activity, head nods, physical excitement, eye contact between certain participants, or other clues indicating level of agreement, disagreement, intensity or interest). The interview room was made ready before the interview started by arranging chairs in a circle. Participants were seated so that they could easily see one another. The number of focus groups was four. The number of focus groups necessary for a qualitative research can only be three or four [13]. Each group interview lasted about 2 hours. All eight students chosen as the sample of the study participated in all four interviews. The interviews were recorded using both audio and video recorders.

The Pattern for Introducing the Group Discussion Included: (1) Welcome, (2) Overview of the topic (3) Ground rules and (4) an opening question. The welcome included a thank you for participating and an introduction of the researchers. The overview was short and simple, explaining what the topic was and why the participants were chosen. Guidelines were used to clarify ground rules such as time duration, method of discussion, recording, turn-taking, breaks, confidentiality and refreshments. The opening question gave each participant an opportunity to speak.

Here Is the Transcription of the Introduction Used in the Current Research: "Good morning and welcome to our session. Thanks for taking the time to join us to talk about educational programs in our country. My name is … and assisting me is … We're both instructors at Payam-e-Noor University of Behshahr in Mazandaran. You were invited because you are students at Payam-e-Noor University. There are no wrong answers but rather differing points of view. Please feel free to share your point of view even if it differs from what others have said. Keep in mind that we're just as interested in negative comments as positive comments and at times the negative comments are the most helpful. You've probably noticed the microphone. We're tape recording the session because we don't want to miss any of your comments. You may be assured of complete confidentiality. We won't use any names in our reports. Tell us your name and where you live."

In focus groups, the researcher tried to use open-ended questions and avoided dichotomous questions which could be answered with a yes or no and tried to apply questions that made participants involved using reflection, examples, choices, rating scales, drawings, etc. The sequence of questions was from general to specific. Researchers also asked questions that made participants reflect on the entire discussion and then offer their positions or opinions on topics of central importance to the researchers.

As far as the analysis of the data is concerned, this research used Krueger's (1994) Framework Analysis [13], which also incorporates some key stages described by Ritchie and Spencer (1994) [14]. Framework analysis was developed in the context of applied research. Applied research aims to meet specific information needs and provide outcomes or recommendations, often within a short period of time. The benefit of Framework Analysis is that it provides systematic stages to the analysis process.

Framework Analysis has 5 key stages. These can be undertaken in a linear fashion and therefore all data can be collected before analysis begins, although framework analysis can equally be used when data collection and analysis occur concurrently.

Key Stages of Framework Analysis Are:

- Familiarizations
- Identifying a thematic framework
- Indexing
- Charting
- Mapping and Interpretation

Krueger's (1994) framework analysis expands these five stages providing seven established criteria for interpreting coded data: words, context, internal consistency, frequency and extensiveness of comments, specificity of comments, intensity of comments and big ideas [13].

Familiarization with data achieved through listening to recordings and reading and re-reading the notes and transcripts by researchers. The next stage involved identifying a thematic framework, Key themes placed within a thematic framework were sorted hierarchically into main and sub themes. The researchers tried to provide this thematic framework by forming categories that grouped themes together and subcategories including more details. The third stage, indexing was accomplished by applying thematic framework to the

interview transcripts and notes. The fourth stage of framework analysis, charting, involved arranging summaries of the data in a database according to thematic content listed. Headings were used from the thematic framework to create charts of their data so that they could easily read across the whole dataset. The final stage, mapping and interpretation, allowed the researchers to compare and contrast participants' accounts while searching for explanations for patterns in the data.

RESULTS

Mapping and interpreting of data was based on seven established criteria provide by Krueger (1994) that included: words; context; internal consistency; frequency and extensiveness of comments; specificity of comments; intensity of comments; and big ideas [13].

Words: Considering the actual words used by the participants and the meanings of those words, it was found that participants' understanding of ICT was limited to the use of computer and the Internet in their education. Words and phrases used by them revealed a high degree of similarity between participants in this case. Here are the transcriptions of two students' speech:

C1: "I had a professor who was in touch with us by Internet. Internet gave me chance to interact with my classmates more and more, I could use English, but it is not common here."

C2: "In institution where I teach, I have more freedom in using computer or at home when I use my personal computer, I learn better and it is better to say more quickly, by using computer I do something, I don't just read, it is not boring."

Context: Researchers tried to examine the context in which focus groups occurred (Payam-e-Noor University) and then interpreted the comment. So researchers tried to examine their questions' wordings and the participants' comments exactly. Participants are students at Payam-e-Noor University and this point was taken into consideration in coding, analyzing and generalizing the result of the interpretation of data. The following is an example of how researchers tried to observe this point in their coding.

C3: " Perhaps because we have five or six classes for most of our courses, it is impossible using computer but I think using Internet can help us very much and can be useful."

Internal Consistency: There is a possibility that Participants in focus groups change their positions because of the interaction with other members of the focus groups and under the influence of their researchers. Such a change was not observed in participants' speech in the current focus groups. The progress of the interview with participants revealed a strong consistency in their views and feelings resulting from what they experienced in their educational context. Participants expressed favorable attitudes toward the use of ICT as can be understood from their comments.

C4: "I think some problems could be solved if our teachers use Internet and ask us to use it. In this way we can interact with each other, we can ask our questions and give comments, it is not possible for us but it can be great if we use."

C5:" Some professors are very good but they are not update so their classes are boring. In my opinion if they learn to use technology as my friends said and make us use computer and Internet, they can motivate students and create competition, so our classes will not be cold."

Frequency or Extensiveness: Some topics were discussed more by participants (extensiveness) and also some comments were made more often (frequency) than others. In fact, frequency relates to consideration of how often a comment or view is made. The term extensiveness refers to the number of participants who express a particular view. This measure can show the degree of agreement on a topic. In the present research all participants talked at length about three subjects:

- Barriers that they encountered because of the lack of the ICT in their educational context as they wanted and/or needed, as is evident in the following quotations:

C6: "Our language laboratory is old and full of problems. Because of these limitations, we cannot practice the skill of listening very well. Many times to answer questions, I had to shout."

C7: "For the course of letter writing, I had many problems. In four sessions, I couldn't learn because we just read the book. I asked my professor to do this practice in internet. But many students couldn't do this practice because the site of university had many problems and at home it got expensive for them."

- The ways in which their learning in the traditional system could be improved through the use of technology, as shown in the following extracts:

C8: "I enjoyed practicing letter writing by using internet, I think for other courses of writing such as article writing, it can help us very much because we can write more in spite of our limited time in classes."

C9: "listening is very hard skill for learning. But if we have good computer or good tools, we can listen better. I want to learn not have good marks."

- Changes they liked to see made in their educational context with regard to the use of ICT indicated in the following comments:

C10: "The basic problem is our laboratory. In fact, it is so simple we need some new technologies to increase the chance of learning. Our most important courses related to listening and speaking are held in laboratory."

C11: "The site of university, of course I think so because of my needs, should have internet with high speed. I should be able to download necessary books. But we cannot even check our mail. The number of computers is limited. We should wait. I really think it is bad."

Intensity: Participants talked about specific topics with a depth of feeling that is referred to intensity. In considering intensity, researchers tried to focus on all aspect of participant' expressions. Though words can be considered as important factors in conveying the strength of feeling, other important factors such as the voice tone and speed should not be ignored. Researchers tried to analyze recording and make a note of these aspects. Reanalysis of notes revealed that participants frequently used higher tone of speech, lower speed and more emphasis when they talked about their own experiences, feelings and needs.

Specificity: Greater attention was placed on responses resulting from personal experience as opposed to impersonal and vague responses. Respondents used the first person pronoun "I" more than any other pronouns whenever they wanted to express their personal feelings and experiences. These sentences were circled by researchers. Closer analysis revealed that participants' personal experiences were mostly about the barrier they felt because of the lack of ICT in their learning environment and noticeable improvement they experienced at their home or in situations such as language institutes where they had more facilities.

Finding Big Idea: Krueger (1994) suggests taking a break for a few days at this stage in order to refocus on the big picture [13]. In the current research, researchers put their research aside for a very brief period of time. In this short period of time, researchers tried to receive comments from skilled persons in qualitative research reviewing their findings. At last, researchers came up with some of the most important findings. Participants of the research as EFL learners of Payam-e-Noor University in Iran were found to encounter with many barriers because of the lack of the technology they wanted and/or needed as expressed in their comments above.But they strongly believed that their learning in the traditional system could be improved through the use of technology and this belief was based on their limited experience in using ICT.

C12: "I enjoyed practicing letter writing by using internet, I think for other courses of writing such as article writing, it can help us very much because we can write more in spite of our limited time in classes. I have a little child then I chose Payam Noor. It is good for me. If teachers ask us to interact with them by internet, it gets excellent for me."

C13: "I agree with-. I am single with no job I like to have at least 10 classes but Payam-e-Noor students have no dorm and came from different cities of Mazandaran. I think using internet or technology is very useful because students can work, can be active although far away from university. I and my friend chat with each other to learn grammar. It helped us very much."

DISCUSSION

The application of new technologies can offer fundamental changes for the role of teachers and learners. These changes are often not addressed in traditional training programs. As it can be seen from the examples given above, the analysis and interpretation of interviews in focus groups reveals that the majority of the

participants expressed favorable attitudes to the use of ICT within the academic environment because of the positive results they experienced at home or other situations in which they had access to ICT. It is encouraging that a large majority of those who had participated in the interview were satisfied and interested in using ICT tools in their educational settings.

Detailed analysis of participants' expressions showed that they felt limitations and obstacles in this matter and expected modification in their educational systems. What participants expected was not a complete change in the traditional educational system. Learners strongly favored the use of ICT in addition to the traditional teaching they received. However; there is still a need to take a broader view to understand and determine how ICT can affect different aspects of learning. This is because educational achievements are shaped not only by the educational background but also by socio-economic background of the learner and their socio-cultural environments that are necessary for their progress and participation in educational and social activities. It is also believed that educational achievements are positively influenced by ICT at schools or colleges. Indeed, it seems that ICT experience at home, especially the use of computer, is also important for academic achievement in certain cases. However, the socio-economic background of the learners should be considered an important factor for their educational achievements.

The result of this study is in contrast with the previous study done in this subject [8]. Liu in his study concluded that students had difficulty integrating ICT well into English learning because of the deficiency in the actual use of ICT in English classrooms and lack of professional assistance from teachers in ICT use outside the English classrooms, which results in students' negative ICT attitudes to a large extent. The current study differs from the above in that the sample consisted of Iranian EFL learners studying at Payam-e-Noor (where most education follows Distance Education norms) and had limited number classes, facing many limitations in their traditional learning. So it seems natural that they have positive attitudes toward new opportunities for learning in terms of ICT. The findings of current study are, however, in line with those reported by Isman and Dabaj (2004), Asan and Koca (2006) and Yang and Chen (2007) who found that learners had positive attitudes toward ICT [15, 16, 17].

CONCLUSION

The present study places special emphasis on the innovative aspects of technology and ever growing use of ICT tools. The result of the current study concentrated on the Iranian EFL undergraduate learners' attitude toward the use of ICT in learning English. In fact the results of the study were in line with those of Bataineh and Banaiabdelrahman (2005) that ICT can "provide excellent and fairly inexpensive supplementary materials to enhance classroom instruction" (p. 35) [18]. This obviously means that ICT can be used as a tool to support and improve educational programs in educational institutions. Special efforts are however needed to support the potential of ICT in terms of learners' motivation, autonomy and self-esteem.

Since the participants of the study were limited to a specific setting, i.e. Payam-e-Noor University with specific characteristics, the generalization of the results require conducting similar studies in other settings like other states or private universities or institutes. In addition, it is necessary to develop a stronger understanding of future learning needs or future learning environments. Future work on ICT would help to grasp more opportunities to prepare for better leaning, for better assessment of learning outcomes and achievements and for better teaching. As a result, it is hoped that the provision of appropriate resources of technologies, especially ICT and integration of new and traditional techniques will lead our educational system to better advancements in the near future.

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