

## Attitudes of the english language university instructors towards the use of technology in teaching and learning

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### ABSTRACT

The outburst of information technology in the later parts of the twentieth century has taken the whole world into its scope. There is an ever growing use of computers in the workplaces and universities. The purpose of this study was to measure the attitudes of the English language university instructors towards the use of computers. It was a descriptive study and data was collected by a survey. This study's population consisted of two hundred university instructors equally divided into male and female. These instructors were randomly selected from different universities. The findings revealed that there was a significant difference between the views of the males and females instructors. Moreover, those who had no professional qualification had the highest mean score. The English language university instructors should be trained in the use of computers so that they might be able to use them more effectively in classroom settings.

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## 1. INTRODUCTION

Language teaching and the use of technology in classroom have a long lasting relationship. New technologies and educational tools have been used for the development of high-quality language learning skills, such as reading, writing, listening, and speaking as well as for wider communication purposes [1-6]. The use of computers in language teaching and learning is not new phenomenon. For more than two decades, interest in multimedia and computers has grown to a great extent and one observes more and more schools with language laboratories throughout the world. Almost thirty years ago, John Underwood [7] produced a seminal work on computer-assisted language learning (CALL). However, Underwood's emphasis was more on the acquisition of language through computers than on language learning. A close corollary to it was the conception of grammar that was to be learnt implicitly instead of being learnt explicitly [8].

Fotos and Browne [9], defined computer-assisted language learning (CALL) as "the search for and study of applications on the computer in language teaching and learning and in now used routinely in a variety of instructional situation" (p.3). They stated that language teachers/instructors should possess CALL expertise that includes both practical skills and a thorough understanding of information technology theory [10-13]. They also provided quite a number of uses that the teacher can make of the computers in teaching languages. These uses range from the collection and analysis of corpora to testing and assessment through computers. Thorson [14] undertook a study to examine the use of computers in assessing writing ability in the first and the second language of the second language learners. The researcher successfully used a

computer based tracking device to find that there was an increased tendency of revision among the students when writing the foreign language.

The university instructors can make an effective use of the Internet for teaching languages. The use of the Internet not only develops the ability to communicate effectively but also ensures the liveliness of the learning process by lowering affective filter [15-21]. There are thousands of resources, websites, pages, and blogs that relate to language teaching in general and English language teaching in particular. There, the instructors can find various activities that relate to the language skills development, assessment, and evaluation procedures and classroom techniques for effective teaching. Moreover, internet is not merely a useful tool for the teachers to teach, it also provides them with unending opportunities to learn regarding the educational world in general and their own field in particular.

According to Levy and Stockwell [22], a large part of CALL is driven by the development of new technologies such as authoring software, learning management systems, audio-and video- conferencing, artificial intelligence and mobile technologies in which they shape the ways we think about, select, and use technology in language training. They referred to Egbert, and Hanson-Smith [23] who identified the following eight conditions of CALL: 1) learners have opportunities to interact and negotiate meanings; 2) learners interact in the target language with an authentic audience; 3) learners are involved in authentic tasks; 4) learners are exposed to and encouraged to produce varied and creative language; 5) learners have enough time and feedback; 6) learners are guided to attend mindfully to the learning process; 7) learners work in an atmosphere with an ideal stress/anxiety level; and 8) learners autonomy is supported.

The findings of Kitchakarn [24] revealed that instructors had positive attitudes towards the use of computers as a learning tool. Several other studies also indicated that language instructors have a positive attitude toward the use of computers for writing and communication in language classroom [25-30]. Warschauer [31] stated that motivation aspects of computer-assisted instruction include “(a) the novelty of working with a new medium, (b) the individualized nature of computer-assisted instruction, (c) the opportunities for learner control, and (d) the opportunities for rapid, frequent non-judgmental feedback” (p.2) [32]. Barak, Watted, and Haick [33] pointed out that language plays an important role in the development of cognitive, social, and motivational factors. They stated that learners, coming from different cultural backgrounds, can differ in terms of learning methods, communication style, and rules of behavior. Here the language plays an important part in participants’ motivation to learn. Abdullah, et al., [34] argued that “a highly motivated teacher with the right attitude would always strive for excellence in his/her teaching practice. Professional development not only motivates but helps teachers to keep up to date with new and effective practices in teaching and learning” (p. 57). They also believed that those teachers with positive attitude towards the use of computers in education have different behavior from those with less positive attitude. Those with positive attitude in computer use results in a higher rate of usage.

Lee [35] reported the barriers that the English language instructors face in using CALL. He stated that though the computers were being used for a considerable period of time, some constraints inhibited the use of computers by the English language instructors. These constraints included (a) financial barriers, (b) availability of computer hardware and software, (c) technical and theoretical knowledge, and (d) acceptance of the technology. However, there are countries in many parts of the world, where computers are still placed in a protected room which has no room for the instructors to experiment with language teaching and learning. The instructors stick to the conventional methods of teaching languages wherein the students get very few chances to interact either with each other or with the instructors. Recognizing the importance of computers in language teaching, it is important to help the instructors in making use of the different tools for effective language learning. However, it remains to be seen as to what are the attitudes of English instructors at the university level towards the use of computers in English language teaching. The present study aims to fill the same gap.

## 2. RESEARCH METHOD

The present study was a descriptive study. The data collection instrument selected for this study was a questionnaire developed by the researcher. The questionnaire covered four dimensions of CALL including Access and Utility, Computer Proficiency, Motivation, and Computer Assisted Instruction. Data was collected from two hundred university instructors equally divided into male and female. Two hundred instructors were chosen at random from different universities. All the instructors had a Master in English language; however, there was a variance in terms of the professional degrees. The instructors had B.Ed. and M.Ed. and TEFL (Teaching English as a Foreign Language) degrees. However, there were also a few who did not have any professional degree. Before using the measurement and data collection tools, it was necessary to ensure the reliability and validity of the questionnaires. In an effort to ensure content validity, faculty from some universities, with expertise in the area of English language, were asked to review the

questions. All agreed that the items represented important elements hypothesized in this study. Therefore, all items were retained. For its reliability, at first, questionnaires were distributed. After analyzing the data by Kolmogorov-Smirnov test, to find out if the data were normal, using inferential statistics with respect to the measured variables and data available for data analysis, the univariate and analysis of variance (ANOVA) statistical methods were used. Data was analyzed in terms of mean score comparison between males and females and in terms of academic qualification, professional qualification and experience.

### 3. RESULT

As can be seen from Table 1, the t-value is 2.522 and p-value is less than 0.05, which highlights the presence of a significant difference in gender on access and utility dimension of CALL in favor of female. Therefore, females have significantly better access and utility regarding computers.

Table 1. Mean difference on access and utility

Gender	N	Mean	SD	SE	df	t-value	p-value
Male	80	17.825	2.226	.248	189.997	2.522	0.012
Female	120	18.750	2.729	.249			

Table 2 shows that t-value is 1.074 and p-value is greater than 0.05. It indicates that a significant difference does not occur gender wise on computer proficiency. Therefore, it can be concluded that male and female instructors have almost the same level of computer proficiency.

Table 2. Mean difference on computer proficiency

Gender	N	Mean	SD	SE	df	t-value	p-value
Male	80	19.625	2.388	.267	147.210	1.074	0.284
Female	120	19.291	1.976	.180			

Table 3 indicates that the t-value is 0.815 and p-value is greater than 0.05. It shows that a significant difference does not occur gender wise on motivation dimension of CALL. Therefore, it can be concluded that male and female instructors have almost the same level of motivation.

Table 3. Mean difference on motivation

Gender	N	Mean	SD	SE	df	t-value	p-value
Male	80	20.612	2.901	.324	198	.815	0.416
Female	120	20.941	2.426	.248			

Table 4 shows t-value of 2.512 and p-value of less than 0.05 which indicates that a significant difference has occurred gender wise on the dimension of computer aided instruction (CAI) in favor of male. It can be concluded that female instructors have significantly better views on Computer Aided Instructions.

Table 4. Mean difference on CAI

Gender	N	Mean	SD	SE	df	t-value	p-value
Male	80	15.675	1.973	.220	197.386	2.512	0.013
Female	120	16.583	2.803	.255			

Table 5 indicates a t-value of 1.840 and a p-value greater than 0.05 which shows that a significant difference does not occur gender wise on overall dimension of CALL in favor of male. It can be concluded that males and females have almost the same views on overall dimensions of CALL.

Table 5. Mean difference on overall dimensions of CALL

Gender	N	Mean	SD	SE	df	t-value	p-value
Male	80	73.737	6.221	.695	191.443	1.840	0.067
Female	120	75.566	7.779	.710			

Table 6 shows that there is no significant difference among the groups on any of the dimensions in terms of academic qualification.

Table 6. ANOVA academic qualification

		Sum of squares	df	Mean square	F	Sig.
Access and Utility	Between Groups	18.352	2	9.176	1.390	.252
	Within Groups	1300.768	197	6.603		
	Total	1319.120	199			
Computer Proficiency	Between Groups	.860	2	.430	.092	.912
	Within Groups	920.015	197	4.670		
	Total	920.875	199			
Motivation	Between Groups	18.714	2	9.357	1.200	.303
	Within Groups	1536.066	197	7.797		
	Total	1554.780	199			
CAI	Between Groups	16.926	2	8.463	1.318	.270
	Within Groups	1265.394	197	6.423		
	Total	1282.320	199			
Overall	Between Groups	11.319	2	5.660	.107	.898
	Within Groups	10408.236	197	52.834		
	Total	10419.555	199			

Table 7 reveals that there is a significant difference among the groups on all the dimensions of CALL in terms of professional qualifications. It was therefore decided to run post-hoc to find out the significant difference between the groups.

Table 7. ANOVA professional qualification

		Sum of square	df	Mean square	F	Sig.
Access and Utility	Between Groups	73.925	3	24.642	3.879	.010
	Within Groups	1245.195	196	6.353		
	Total	1319.120	199			
Computer Proficiency	Between Groups	46.462	3	15.487	3.471	.017
	Within Groups	874.413	196	4.461		
	Total	920.875	199			
Motivation	Between Groups	140.416	3	46.805	6.486	.000
	Within Groups	1414.364	196	7.216		
	Total	1554.780	199			
CAI	Between Groups	241.774	3	80.591	15.180	.000
	Within Groups	1040.546	196	5.309		
	Total	1282.320	199			
Overall	Between Groups	1216.493	3	405.498	8.636	.000
	Within Groups	9203.062	196	46.954		
	Total	10419.555	199			

Table 8 indicates that there is a significant difference between the mean scores of the instructors who do not have any professional qualification and the instructors holding TEFL qualification on the Access and Utility dimension of CALL.

Table 8. Multiple comparisons on access and utility professional qualification

S. No.	Pair	Mean difference	p-value
1	Nil vs TEFL	1.538	.002

Table 9 indicates that there is a significant difference between the mean scores of the instructors with M.Ed. and the instructors holding B.Ed. degree. There is significant difference between the mean scores of the instructors with M.Ed. and the teachers with “TEFL” qualification. The same significant difference is also found between the mean scores of the instructors without any professional degree and the instructors holding B.Ed. degrees on dimension of Computer Proficiency. It can be concluded that the instructors with M.Ed. degree have significantly higher mean among the group whereas the instructors with B.Ed. degree have significantly lower mean among the groups on Computer Proficiency Professional Qualification.

Table 9. Multiple comparisons on computer proficiency professional qualification

S. No.	Pair	Mean difference	p-value
1	M.Ed vs B.Ed.	2.0892	.004
3	M.Ed. vs TEFL	1.3912	.020
4	Nil vs B.Ed.	1.2500	.030

Table 10 shows that there is a significant difference between the mean scores of the instructors with M.Ed. and the instructors holding B.Ed. degree. There is a significant difference between the mean scores of the instructors with TEFL qualification and the teachers with B.Ed. professional degree. The same significant difference is also found between the mean scores of the instructors without any professional degrees and those teachers who have B.Ed. degree and between the mean scores of instructors without any professional degree and the instructors with TEFL professional degree on dimension of Motivation. Hence, it is found that the instructors without any professional qualification have significantly higher mean score among the groups whereas the instructors with B.Ed. degree have significantly lower mean score on Motivation in terms of professional qualification.

Table 10. Multiple comparisons on motivation professional qualification

S. No.	Pair	Mean difference	p-value
1	M.Ed. vs B.Ed.	2.7083	.003
2	TEFL vs B.E	1.3314	.027
3	Nil vs B.Ed.	2.8958	.000
4	Nil vs TEFL	1.5644	.004

Table 11 indicates that there is a significant difference between the mean scores of the instructors with B.Ed. and the instructors with TEFL qualification. There is a significant difference between the mean scores of the instructors with M.Ed. and the instructors with TEFL qualification. The same significant difference is also found between the mean scores of the instructors without professional degree and the instructors with TEFL qualification on dimension of computer aided instruction (CAI). Hence, we can conclude that the instructors with TEFL professional qualification have the lowest mean score on Computer Aided Instruction.

Table 11. Multiple comparisons on CAI professional qualification

S. No.	Pair	Mean difference	p-value
1	B.Ed. vs TEFL	1.9705	.000
2	M.Ed. vs TEFL	1.4109	.031
3	Nil vs TEFL	2.7413	.000

Table 12 indicates that there is a significant difference between the mean scores of the instructors without any professional degree and the instructors with B.Ed. degree. The same significant difference is also found between the mean scores of the instructors with instructors having no professional qualification and the instructors with TEFL professional degree on dimension of Overall Professional Qualification. It can be concluded that the instructors without any professional qualification have significantly higher mean score on all the dimensions of CALL.

Table 12. Multiple comparisons on overall professional qualification

S. No.	Pair	Mean Difference	p-value
1	Nil vs B.Ed.	5.3750	.004
2	Nil vs TEFL	6.3961	.000

There is no significant difference among the groups as far as Access and Utility and Computer Proficiency dimensions are concerned. However, there is a significant difference between the groups in terms of Motivation, CAI, and Overall. It was thus decided to run post-hoc on these dimensions as shown in Table 13.

Table 13. ANOVA experience

		Sum of Square	df	Mean Square	F	Sig.
Access and Utility	Between Groups	31.418	3	10.473	1.594	.192
	Within Groups	1287.702	196	6.570		
	Total	1319.120	199			
Computer Proficiency	Between Groups	13.188	3	4.396	.949	.418
	Within Groups	907.687	196	4.631		
	Total	920.875	199			
Motivation	Between Groups	152.142	3	50.714	7.087	.000
	Within Groups	1402.638	196	7.156		
	Total	1554.780	199			
CAI	Between Groups	49.897	3	16.632	2.645	.050
	Within Groups	1232.423	196	6.288		
	Total	1282.320	199			
Overall	Between Groups	407.198	3	135.733	2.657	.050
	Within Groups	10012.357	196	51.083		
	Total	10419.555	199			

Table 14 indicates that there is a significant difference between the mean scores of the instructors with 6-10 years' experience and the instructors having 1-5 years of teaching experience. There is a significant difference between the mean scores of the instructors with 11-15 years and the instructors with 1-5 years of teaching experience. The same significant difference is also found between the mean scores of the instructors with more than 11-15 years of teaching experience and the instructors with 6-10 years' experience and between the mean scores of the instructors with more than 15 years of teaching experience and those teachers who have 1-5 years teaching experience on dimension of Motivation Experience wise. Hence, it can be concluded that teachers with an experience of 11-15 years have significantly higher mean score among the groups on motivation whereas the teachers with an experience of 1-5 years have significantly lower mean score among the groups on motivation.

Table 14. Multiple comparisons on motivation experience

S. No.	Pair	Mean Difference	p-value
1	6-10 years vs 1-5 years	1.1082	.029
2	11-15 years vs 1-5 years	2.4952	.000
3	11-15 years vs 6-10 years	1.3870	.050
4	More than 15 years vs 1-5 years	1.7571	.000

Table 15 indicates that there is a significant difference between the mean scores of the instructors with 6-10 years' experience and the instructors having 15 years of teaching experience, in favor of the instructors with 6-10 years of experience on dimension of CAI Experience.

Table 15. Multiple comparisons on CAI experience

S. No.	Pair	Mean Difference	p-value
1	6-10 years vs More than 15 years	1.3599	.006

Table 16 indicates that there is a significant difference between the mean scores of the instructors with 6-10 years' experience and the instructors having 1-5 years of teaching experience. There is also a significant difference between the mean scores of the instructors with 11-15 years and the instructors with 1-5 years teaching experience on dimension of Overall Experience. Therefore, it can be concluded that the instructors with 1-5 years of experience have the lowest mean score in all the dimensions of CALL.

Table 16. Multiple comparison on overall experience

S. No.	Pair	Mean Difference	p-value
1	6-10 years vs 1-5 years	2.9410	.030
2	11-15 years vs 1-5 years	4.1619	.020

#### 4. DISCUSSION

Computer use is becoming increasingly ingrained in our everyday lives. Many believe that for students and instructors to survive in today's information oriented culture, it will be necessary for them to have the skills that will facilitate computer use. Availability of computer has a significant impact on our everyday performance only if it can be used efficiently and effectively. A key factor in determining whether university students gain the necessary knowledge and skills to use technology depends on the ability of instructors to effectively incorporate technology into classroom instruction. Meaningful technology training for instructors that demonstrate the relevance of the training to everyday classroom instruction is essential. The problem lies in the fact that instructors who are interested in using computer are more likely to be those who already have some computer experience – whereas those who have no knowledge of the machine are more hesitant. The question of how to motivate this portion of the teaching population is a key issue. Raman, Malik, and Omar-Fauzee [36] found that the prior computer experience is a factor toward computer use in education and this help to produce positive attitudes towards the use of technology although this attitude toward computer use differed by male and female.

In this study it was revealed that female language instructors had better access to computers and had more interest in technical device. All individuals employed as classroom instructors need to develop the skills and competencies which will enable them to maximize the use of computer device as a teaching resource to enhance their student learning. It is a challenge for the instructors of modern age how they can prove themselves competent to introduce modern ideas and develop students' thinking. In this study no significant difference was found between male and female English language instructors regarding their computer competency. Results of one study [37] indicated that females had lower confidence and less experience in the use of computer in teaching and they tended to learn how to use technology from others, whereas males were more likely to learn from their own experience. Broos [38] stated that males were more enthusiastic to develop a more positive attitude towards the use of technology in teaching whereas females take a longer time to become familiar and consequently take longer time to develop positive feelings for new technology. Niiranen, Raikonen, Ikonen [39] also found that males were more self-confident and felt it was fun to learn how to operate different tools.

Motivation provides a direction to some tasks and there can be many sources of motivation for learning [40]. An instructor can be a great source of motivation for students but he/she also need motivation in his/her professional life. Many factors can be involved here but it is an understood reality that computer technology made the learning or teaching environment more conducive. In this study there was no significant difference between both male and female language instructors on different dimension of motivation regarding CALL and both the genders were having almost equal level of motivation for computer. Karakas [41] also found no significant differences between male and female participants in terms of being motivated to use computer in writing and communication.

Computer-assisted learning is a new and innovative trend that has wide range of affection in education for the students. Students' learning can be enhanced by using these productive tools during teaching. Applying the use of computer in different situation, students can change the entire way of their thinking and imagination. Use of computer-assisted instruction material to enhance traditional teaching is a novel concept. It is also considered as a viable source for solving different problems of education. In this study, a significant difference was found on the dimension of Computer Aided Instruction in favor of male English Instructors. Therefore, male instructors are more interested in the use of technology in education as compared to females.

Technology is considered the main support for the students in their learning development in this modern era [42-43]. It shifts teacher-centered instruction to student-centered learning. Effective use of computer in education and interest and attitudes of instructors towards the use of computer is an indicator of uplifting the standards of education so its importance cannot be underestimated. Many institutions provide facility to their instructors to utilize their knowledge through computers. The effective use of computer also depends on the attitude and knowledge of instructors. Those who have more experience have more positive attitude towards computer use [44-47]. These outcomes suggest that strategies to enhance instructors experience with computer technologies could contribute to the formation of positive attitudes and self-efficacy and in this way positively influence instructor use of computer technology.

The study revealed that there was a significant difference among the groups on all the dimensions of CALL in terms of professional qualifications. Professional qualification matters much in teaching and learning process of education. The results showed a significant difference among faculty members according to their professional qualification on the dimension of CALL.

## 5. CONCLUSION

Human nature is very much simple and can be very complex as well. Workplace motivation plays a significant role in promoting employees interest and attitude towards any task. On the other hand, motivation can also be self-created or intrinsic. To improve students' performance in education, we must concentrate on student-centered teaching instead of teacher-centered teaching. Different instructors can provide different types of learning experiences. When instructors were compared on different dimensions of CALL a significant difference was found on motivation, CAI and overall attitude of instructors towards computer.

Suggestions for future research include the use of a larger and more diverse sample. The technological resources, to which these instructors have had access, may be greater than the resources available to instructors from a university with lower ranking and less availability of technology. If they had greater access to computers and opportunity for use of computer technology, the instructors in this sample may perceive their skills to be more competent than instructors who have had less access and opportunity. Future research could also examine the degree to which perceived competence and actual competence are related. Such a study would require instructors to demonstrate their ability with various forms of technology as well as report on their perceived competence with that technology. Finally, just because individuals are competent with technology does not necessarily mean that they are able to employ technology in the classroom in a manner that enhances the learning of their students. Important future research would begin to address the learning outcomes of students whose instructors use various technologies.

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