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Algerian EFL University Teachers' Attitudes towards Computer Assisted Language Learning: The Case of Djilali Liabes University

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Abstract

Computer Assisted Language Learning (CALL) is still groping its way into Algerian English as a Foreign Language (EFL) classroom, where Information Communications Technologies (ICTs) are defined in terms of occasional use of computers and data projectors for material presentation in the classroom. Though major issues in the image of the lack of training and absence of facilities are clearly apparent, stakeholders' attitudes are a decisive aspect that needs to be mapped out if we are to alter the current situation. Thus, the present work aims at investigating EFL university teachers' attitudes towards CALL at Djilali Liabes University (western Algeria). The current work is a cross-sectional descriptive study that explores teachers' attitudes across the three domains (affective, cognitive, and behavioural) and investigates other related aspects that may help indicate teachers' likelihood to adopt CALL in the future. The results are promising as the investigated population not only demonstrated a clearly positive attitude towards CALL but also manifested a number of signs that indicate their likelihood to adopt CALL in the future if circumstances are favourable.

Keywords: Computer Assisted Language Learning, Attitudes, Teachers, Algeria, English as a Foreign Language

1. Introduction

In order to keep up with current speed at which all spheres of life are evolving, institutions are obliged to introduce and adopt innovative practices at different levels. As education is at the heart of nowadays' society, educational institutions are highly liable to such a change. The most common innovative practice that has recently invaded education in general and English as a Foreign Language (EFL) classroom in particular is the introduction of Information Communications Technologies (ICTs). However, as many factors play a decisive role in the success or failure of such a move, a great deal of literature confirms that attitudes of the stakeholders in regards of the introduced innovation are of a paramount importance. The success of any innovative project in education hinges upon teachers' attitude towards the innovation in question (Albirini, 2006; Sabzian & Gilakjan, 2013). Bullock (2004) refers to teachers' attitude as "a major enabling/disabling factor" in the adoption of innovative practices. Several other studies established teachers' attitude as a major predictor of ICT use in educational settings (Abas, 1995; Blankenship, 1998; Sabzian & Gilakjan, 2013). Therefore, an attitudinal study is pivotal for any Computer Assisted Language Learning (CALL) implementation project, as it would facilitate designing the introduction process in a way that accommodates the target population's preferences and limits the chances for change resistance.

The present work aims at mapping out the attitudes of teachers at English Language Department at Djilali Liabes University towards CALL, and their relationship to the absence of twenty-first century tools from EFL classrooms at the same department. A number studies pointed out that stakeholders' attitudes are the most single decisive factor that determines whether CALL is to be adopted or rejected.

Hence, the main drive behind the current study is to examine the following question:

- What are the teachers' attitude towards CALL at Djilali Liabes University?

2. Literature Review

Teachers' attitude affects their instructional decisions and choices, and consequently their evaluation of the outcomes of any innovation incorporation project (Albion & Ertmer, 2002; Sabzian & Gilakjan, 2013). In this regard, Gardner et al. (1993) state that "the formation of attitudes can provide an understanding of teachers' decisions and perceptions. Attitude may serve to explain decisions educators apply to teaching and how they prepare to teach with technology".

Therefore, if a teacher believes that a piece of CALL is likely to improve and facilitate his/her practice and affect his/her students' learning process positively, that teacher is more likely to accept CALL and adopt it (Saye, 1998). However, if the same technological device is deemed to be of a negative effect on the teacher and/or students, teachers are more likely to manifest resistance (Askar & Umay, 2001). Likewise, teachers' attitudes towards technology are tightly linked to their perception of what constitutes effective teaching. If a teacher believes that teacher effectiveness does not entail the use of technology, this teacher is more likely to have a negative attitude towards technological devices that s/he deems unnecessary and vice versa (Ibid.). Consequently, preliminary exploration of teachers' attitudes before the introduction of any innovative practice is vital for its success (Sabzian & Gilakjan, 2013). Equally important, developing teachers' positive attitude is prominent, not only for the process of educational technologies' introduction but also for reducing the chances of any possible resistance (Watson, 1998, cited in Albirini, 2006).

Watson (ibid.) warned against the simplistic and mistaken assumption that teachers will accept innovations in their daily practice by simply making technological devices available. He argues that teachers are by no means "an empty vessel into which this externally defined innovation must be poured" (ibid., p. 381). Likewise, Huang and Liaw (2005) note that regardless of how sophisticated and powerful technologies are, teachers would resist them as long as their attitudes are negative. Having a positive attitude does not only affect teachers' resistance, but it also impacts other aspects such as their likelihood to benefit from training (Sabzian & Gilakjan, 2013). Teachers with a positive attitude towards technological devices feel more comfortable around computers and are more likely to adopt them into their practices (Kersaint et al., 2003). Similarly, positive attitude has been found to be a decisive factor in encouraging "less technologically capable teachers to learn the skills necessary for the implementation of technology-based activities in the classroom" (Albirini, 2006, p. 376). More importantly, teachers' attitudes do not only affect their personal decisions and experiences with computers but also those of their students (Christensen, 1998). In this regard, Yildirim (2000) explains that "Teachers teach as they have been taught, and it is unlikely that computer skills will be transferred to students and encouraged by teachers unless the teachers have positive attitudes toward computer use" (p. 481). Therefore, teachers' attitudes towards computers do not only affect their own practice but also their students' attitude and likelihood of technology adoption by potential future teachers.

Attitudes are learned evaluative predispositions of a complex structure as they entail a number of subcomponents. The strength and durability of an attitude depend on its dominant type, which might be affective, behavioural, or cognitive. Though, it is worth of note that cognitive based attitudes are known to be the strongest and the hardest to change. Determining the nature of the stakeholders' attitudes towards CALL across the different domains is the first step towards understanding what impedes CALL normalization at the level of English department. Additionally, the type of the attitude is determined by its formation process, which is also dictated by a set of needs and environmental factors. Being highly circumstantial, attitudes are triggered in response to a need as mechanism to help individuals adjust to a particular situation or environment. This circumstantial nature means that attitudes can be changed by offering the right incentives and suitable environmental factors. Therefore, even if a particular population demonstrates a negative attitude towards ICTs, this could be altered through putting in place a plan that helps them recognize the positive side of CALL and be more receptive to it. Furthermore, attitudes are not only formed by experience, as they also affect individuals' experiences. Thus, they can be used as a reliable predictor of behaviour if a number of factors are closely checked. This function in particular is of a paramount importance to the present research, as it would help the researchers gauge stakeholders' likelihood to adopt CALL in the future.

3. Method

The current work is cross-sectional descriptive study that took place at Dijilali Liabes University in Sidi Bel Abbes, where a total number of 50 questionnaire copies were randomly handed to teachers at English language department. However, it should be pointed out that only 36 questionnaire copies were handed back to the researchers.

3.1 Participants

All the informants are active faculty members at the level of English language department at Djilali Liabes University at the time of conducting the study. The present work investigates the total number of 36 teachers; almost 60% of them are males whereas female teachers represent around 40%. Their ages range between 24 years old and 64 years old, but it should be pointed out that 75% of informants' ages range between 30 and 49. The teaching experience of around 47% of teachers who took part in the survey ranges between six and ten years, whereas the second major category is represented by teachers who have a working experience ranging between one and five years (33.33%). It is also worth pointing out that 58.33% of our respondents are Ph.D. Holders whereas 36% of them are Doctoral students who already hold an MA degree. So, it could be concluded that the majority of respondents who took part in this study are relatively young teachers with an average period of working experience.

3.2 Research Tool

The questionnaires, which is based on the model designed by Albirini (2006), is a mixture of closed-ended questions, open-ended questions, and Likert-scale surveys; each questioning technique is employed depending on the nature of the data that the researchers are aspiring to explore. The first section of the questionnaire is intended to investigate respondents' background information; it is made up of closed-ended questions with a set of determined options in addition to open-ended questions. The same thing applies to the second section that tackles computer accessibility

among teachers, the third section that covers ICT training received by teachers, and the fourth section that explores ICT applications in classroom, as they all make use of the same types of questioning. Meanwhile, Likert-scale surveys are used to determine teachers' attitude across all the three domains (affective domain, cognitive domain, behavioural domain), and gauge their likelihood to adopt educational technologies and that by measuring their perceptions of CALL in terms of perceived usefulness, perceived ease of use, its compatibility with their practices, and computer obesrvability in their environments. Likert-scale surveys are also used to investigate teachers' computer competence. It is worth pointing out that questionnaires were handed directly to teachers at the level of English department and were collected after a period of one week. After that, the gathered data were processed using IBM SPSS Statistics 21.

4. Main Findings

The following section presents the findings of the questionnaire. It is worthy of note that in sections where Likert-scale survey tables are employed, a mix of negatively and positively worded items were used in order to reduce acquiescent response bias (Nunnally, et al.,1967), and responses were obtained on a total five-point Likert-scale. Items were reverse-coded where necessary, so that higher values represent a more favourable disposition toward ICT. Responses were represented by a mean score on a 5-points scale ranging from 1 (strongly disagree) to 5 (strongly agree).

4.1 Teachers' Attitudes across the Three Domains

Teachers' attitudes towards CALL were explored in terms of three subdomains, namely affective attitude, cognitive attitude, and behavioural attitude (Table 1).

Table 1. Teachers' Attitude towards CALL

Items	Overall Mean	SD	Combined Overall Mean
1. Affective domain attitude	4.41	.852	
2. Cognitive domain attitude	4.16	1.069	4.29
3. Behavioural domain attitude	4.30	.815	

Key: 1 (Very Negative Attitude); 2 (Negative Attitude); 3 (Neutral Attitude); 4 (Positive Attitude); 5 (Very Positive Attitude).

Our sample population clearly demonstrated positive attitudes across all the three domains; however, affective (M = 4.41) and behavioural (M = 4.30) attitudes scored higher compared to the cognitive one (4.16), which is perfectly natural as the complexity of this type in particular results in more doubt and less confidence on the part of the individual when expressing it (Hassad, 2007). Therefore, it could be concluded that teachers at the level of English department hold a positive attitude towards CALL with a combined overall mean score of 4.29.

4.2 Teachers' Likelihood to Adopt CALL

The study also explored the teachers' computer skills (Table 2).

Table 2. Teachers' Computer Skills

Items	Overall Mean
1. Basic Computer Skills	3.37
2. Advanced Computer Skills	2.41

Key: 1 (Low ICT skill); 2 (Moderate ICT skill); 3 (High ICT skill); 4 (Very High ICT skill)

Our sample population of teachers demonstrated a number of positive signs that indicate their likelihood to adopt CALL if circumstances are favourable, including their mastery of basic ICT skills. As most respondents have the basic skills needed to operate computers, and this is confirmed by the significantly high overall mean score of 3.37 (out of 4) that teachers got when asked to rate their basic computer skills. However, our informants seem to be less familiar with other rather advanced computer applications as they got an overall mean score of 2.41.

Likewise as indicated in Table 3, teachers' positive perception of CALL usefulness and ease of use combined with their positive perception of CALL's social influence are major indicators of future CALL incorporation.

Table 3. Computer Attributes

Items	Overall Mean	SD
1. Perceived Usefulness of CALL	4.33	.928
2. Perceived Ease of Use of CALL	4.33	.805
3. Compatibility of CALL with teachers' practices	4.16	.900
4. Computer Observability	4.54	.631

Key: 1 (Very Negative Attitude); 2 (Negative Attitude); 3 (Neutral Attitude); 4 (Positive Attitude); 5 (Very Positive Attitude)

However, these positive perceptions need to be combined with a training on how to incorporate CALL effectively and provision of ICT facilities, otherwise they will count for nothing (Mumtaz, 2000).

4.3 Teachers' Computer Access

Respondents were asked to rate their access to potential computer devices in a number of contexts, namely home, university (laboratory, library, etc.), and other places (cybercafés, public institutions, etc.). Computer access was represented by a mean score on a 5-points Likert-scale ranging from 1 (never) to 5 (daily). As it can be discerned from Table 4, home represented our respondents most frequent place of computer access as all of them (100%) stated that they used computers at their homes in a daily manner, the fact that resulted in a perfect mean score of 5 points with standard deviation of 0.00.

Table 4. Computer Access

Items	Overall Mean
1. Home	5
2. University	1.92
3. Other Places	2

Key: 1 (Never); 2 (Rarely); 3 (Sometimes); 4 (Often); 5 (Always)

Cybercafés and other public institutions were our informants' second frequent answer, yet with a mean below the average (2.00) as the majority of our respondents opted for rarely (66.7%) as an answer (SD = 0.632). This can result from a number of reasons, mainly bad services and inappropriateness of facilities. With a mean score of only 1.92, University proved to be the least used place for accessing computers, as all the respondents' answers (SD = 0.669) ranged between never (25%), rarely (58.33%) and once a week (16.66%) and that is due to the lack of computer facilities at the level of English department. Meanwhile, when asked to rate the frequency of their use of computers in their daily lives, most teachers opted for "always" (66.66%) and "often" (27.77%). Therefore, almost all the teachers (94.44%) can be referred to as regular users of ICTs (Table 5).

Table 5. Regularity of Computer Use

Category	Frequency	Percentage
1. Regular Users	34	94.44
2. Less Regular Users	2	5.56

4.4 CALL Training

Table 6 illustrates informants' responses to whether they had received training on how to use ICTs in EFL teaching.

Table 6. Computer Training

Response	Frequency	Percentage
1. Yes	21	58.33
2. No	15	41.67

As the results show, 41.67% of respondents stated that they had received formal training where 16.66% of teachers noted that they learned how to use ICT in EFL teaching on their own. Meanwhile, the remaining 41.67% of informants stated that they had not received any training. The results of training type experienced by the teachers are illustrated in Table 7.

Table 7. Training Type

Possible Responses	Frequency	Percent
1. Basic computer literacy (on/off operations, how to run programs, …)	6	28.57
2. Computer applications (word processing, Excel, spreadsheets, …)	9	42.58
3. Computer integration (how to use computers in classrooms)	2	9.52
4. Other	4	19.04
Total	21	100.0

As for training type (Table 7), 28.57% teachers noted that they had received a basic training on how to operate a computer, in addition to the 42.58% of respondents whose training covered the use of computer applications (word processing, Excel, PowerPoint, etc.). Only 2 respondents (9.52%) reported that they had received a rather advanced type of training that entails computer integration in classroom. The answers of the remaining 19.04% who opted for other as an answer ranged between training on PowerPoint presentation (16.7%) which can be included under computer applications, and the use of rather advanced applications such as Moodle platform and asynchronous CMC tools.

4.5 Use of CALL for Teaching Purposes

Table 8 illustrates teachers' responses to whether they had used ICT in their teaching practices.

Table 8. Use of CALL in Teaching

Response	Frequency	Percentage
1. Yes	24	66.66
2. No	12	33.33

According to the results, 24 teachers (66.66%) stated that they had used ICTs for teaching purposes whereas 12 teachers (33.33%) responded that they had not.

As for ICT devices and software they have employed, respondents' answers included laptops, speakers, and data projectors for hardware, and online open source platforms, emails, social networks, PowerPoint, word-processing, and other computer applications for software. As for the purpose for which they used ICT (Table 9), all respondents stated that they had used it for material presentation whereas 2 teachers added that s/he had used ICT for practice.

Table 9. Purpose of CALL Use

Response	Frequency	Percentage
1. Material Presentation	24	100
2. Practice	2	8.33
3. Assessment	0	0

As for the place where ICT was employed, all the 24 participants (100%) stated that they had used ICT in their classrooms. Furthermore, two informants (5.55%) noted that they had had the chance to use ICT in a language laboratory. Meanwhile, no informant stated that s/he had used the internet. Besides, all informants who stated that they had used ICT, also noted that it had helped their students in many ways including motivation and keeping students focused. Likewise, another teacher noted that the use of ICT helped free more time for active learning rather than spending time on lecturing and passive teaching. Another benefit of ICT listed by our informants is the diversification of teaching especially for visual learners who found pictures, charts, and other visual aids very informative and intriguing.

5. Discussion

The study explored the attitudes of EFL university teachers at Djilali Liabes University towards Computer Assisted Language Learning. The success of any innovative project in education hinges upon stakeholders' attitude towards the innovation in question (Albirini, 2006; Sabzian & Gilakjan, 2013). The sweeping majority of our informants, even those who have never used CALL, demonstrated a positive attitude towards CALL across the three attitudinal subdomains with an overall mean score equal to 4.29. This positive attitude is the first step towards CALL integration as a number of studies (Cox et al., 1999, cited in Sabzian & Gilakjan, 2013) proved that teachers who appreciate ICT, value its integration in teaching, and recognize its importance in educational settings are more likely to adopt CALL in their classroom if circumstances are favourable.

Meanwhile teachers demonstrated other signs that indicate their likelihood to adopt CALL. Attitude object observability is a factor of a paramount importance that steers attitudes one way or another. In our case, the attitude object is computer in particular and educational technologies in general, which got a positive overall mean score of 4.54. Thus, not only do our informants acknowledge that technology is used in EFL classrooms for educational purposes, but they are also fully aware of its positive impact worldwide. Teachers' acquaintance with the idea of using ICT as an educational tool is confirmed by their beliefs that CALL fits in their teaching practices, suits their students' learning styles, and conforms to curriculum goals.

Other factors include teachers' perception of CALL usefulness and ease of use as set in Davis' Technology Acceptance Model (1989). The overall mean score of 4.33 that teachers got when asked about their perception of CALL usefulness asserts that they do perceive CALL as a useful tool that fits in their teaching practices and may help their students learn more effectively. Whereas, the drawbacks they pointed out only highlight their awareness of CALL limitations, which in this case is a positive sign as it reduces the chances for inflated and unrealistic respect and overestimation of what

CALL can do, and consequently the ensuing sense of disappointment with the outcomes. According to Yuen and Ma (2002) perceived usefulness affects CALL adoption more than perceived ease of use. However, this perceived usefulness cannot be fully discerned unless teachers form a comprehensive understanding of how CALL can be effectively employed and come to realize the range of possible applications and benefits of CALL integration (Mumtaz, 2000). The fact that brings us to the need for CALL training.

As for CALL ease of use, informants' responses are positive but with some reasonable reservations. Questionnaire respondents noted that their computer basic skills are fairly moderate; however, there are other more advanced and needed skills that need more honing. Additionally, taking into account that almost all teachers who took part in this research are regular consumers and users of technologies, means that they already have at least some basic knowledge on how to manipulate ICTs, the fact that positively affects their perception of CALL ease of use. Moreover, the overall mean score of 4.33 obtained from the questionnaire confirms that not only our teachers are able to use technology to some extent but also believe that they can learn how to use it if offered the required training.

In addition to Davies' TAM, the researchers also deem it important to take into consideration Venkatesh et al.'s (2003) Unified Theory of Acceptance and Use of Technology model that incorporates the four main factors namely performance expectancy, effort expectancy, social influence, and facilitating conditions. First, as far as the first two factors (performance expectancy and effort expectancy) are concerned, they are just relabelling of Davies' perceived ease of use and perceived usefulness, which have already been discussed and proven positive. Whereas for social influence, our teachers' social subjective norms towards CALL seem positive, as CALL incorporation is not only perceived as a twenty first century necessity but also a sign of effective practice that affects teachers' image positively. As long as CALL is employed in an appropriate and informed manner, the social environment (mainly other teachers and students) receive educational technologies employment with both respect and appreciation. Meanwhile, facilitating conditions which are defined in terms of "training, support, and access to technology" (Blackwell et al., 2013), they are to a large extent subjected to administrative decisions, and until all these rather basic requirements are satisfied teachers may find it difficult to incorporate technology. Nonetheless, this does not eliminate the fact that some teachers are taking the initiative with their own means and try to incorporate CALL into their classes.

The majority of our sample population of teachers are regular users of computers and they are no strangers to different types of technologies (computers, laptops, smartphones, and internet) as they use them regularly in their daily lives. However, the places where they access these technologies seem pretty much limited to their living places as English department lacks the most basic facilities in the image of computer laboratories and internet connection; whereas, public places such as cybercafés are characterized by their basic equipment and poor services. Nonetheless, teachers' regularity of use and daily contact with technology are signs of positive attitude and predictor of future incorporation of CALL (Kersaint et al., 2003, cited in Sabzian & Gilakjani, 2013). In line with this argument, Cox et al. (1999, cited in Mumtaz, 2000) note that regular use of technologies results in ICT use confidence, which not only makes CALL adoption process easier but also affects teachers' perception of CALL usefulness positively.

Regarding training on CALL integration, a sizable proportion of respondents (58.33%) stated that they either did not receive training at all or at least did not receive it from the university. The fact that brings to the surface the negligence of CALL in students' curriculum as studying years, especially post bachelor degree, could be referred to as pre-service teacher training. And being a student at Djilali Liabes University, one of the researchers can confirm that even when students receive computing lessons as a subject, it is entirely theoretical, decontextualized, technical, and completely irrelevant to ELL and ELT, in fact students learn about the different components of computers rather than how to operate computers or use them for learning purposes. On the other hand, formal in-service teacher training programs, which most of the time do not exist at all for Algerian university teachers, tend to neglect the importance of training teachers on how to incorporate CALL in their teaching. Lack of CALL training can also be inferred from teachers' responses, which mainly limit CALL use to computers and data projectors, and failed to see how other technologies can empower and fit into their teaching practices especially the use of internet 2.0 applications. Likewise, our informants' limited perception of CALL and lack of training can be discerned from their tendency to restrict the use of technology for in-classroom content delivery without considering other available options.

Almost 67% of teachers who have taken part in the study noted that they have used ICT in their teaching previously, however this use seems to a large extent to be limited to in-class learning materials presentation and content reinforcement, mainly through computers and data projectors. This employment of CALL is completely limited to in-classrooms use, as the only computer laboratory at the level of English department is out of service and teachers tend to turn a blind eye on the internet and rule it out of their options. Yet interestingly enough, one teacher who has not yet employed CALL at the level of our university, stated that he had used CALL only when he was teaching in a foreign country, as the use of CALL was a requirement imposed by the administration there as a part of the curriculum. The fact that brings us to the third requirement of CALL normalization, where Chambers and Bax (2006, p. 477) note that

> If asked to identify one crucial factor, we would emphasize syllabus integration. This for us means the need to integrate CALL into the syllabus in such a way that teachers are expected, as often as the facilities allow, to use computers in their teaching.

Therefore, it is not enough to put facilities in place but also to require teachers to employ them and use ICT regularly in their teaching. Also some teachers, who despite their appreciation of CALL and their positive perception of its effectiveness, consider technology a threat to conventional teaching techniques and stated that they prefer traditional methods. This can be referred to the fact that we teach the way we were taught, and our current teachers studied solely through traditional methods that they tend to stick to. However, there is a need to break the vicious circle and accustom current students to the use of CALL, otherwise in the future we will suffer from a severe generation gap (Bollin, 2003; Gruba, 2008;) and end up with teachers who use traditional methods in the midst of twenty first century regardless to technological development.

6. Conclusion

Despite the efforts made by the Algerian government to modernise the educational sector throughout the last decade, technology is still to a large extent alienated in Algerian classroom in general and EFL classroom in particular. The reasons behind this abstinence from CALL are multiple and varied in nature. However, no one can deny the prominence of attitudes that play a major role in determining the success or failure on any innovation incorporation process. Though the results of this study are limited in scope and context as it took place at Djilali Liabes University, it still reflects what is taking place nationwide as all Algerian universities face the same challenges, most important of which are the lack of ICT facilities, lack of the needed training, and absence of an effective policy that aims at integrating educational technologies. The second factor that makes the present study representative of large proportion of Algerian tertiary institutions, is the fact that the teachers who took part in the study come from different regions of the country and received their education and training at different universities.

The present research came to a conclusion that the investigated population holds a positive attitude towards CALL, and manifest a number of positive signs that indicate their preparedness to actively engage in any CALL incorporation process if circumstances are favourable. Which is a promising asset that should pave the way for the incorporation of educational technologies in a more effective way that leads to their eventual normalisation. However, a number of barriers need to be addressed first. One of the overarching issues is the absence of effective ICT training, as despite the fact that around 58% of informants stated that they had received some training, their answers revealed that their training is at best insufficient. As most of the time the training is technical and do not serve its primary purpose that is helping teachers incorporate educational technologies into their practices. Additionally, English language department lacks even the basic forms of technology in the image of permanent internet connection and a sufficient number of data projectors, needless to talk about language laboratories without which no CALL incorporation can take place. Finally, providing the needed ICT equipment and technical training to teachers can never be enough, as introducing CALL cannot be effective in achieving the desired positive impact unless major changes are made at all the levels including teaching methods, stakeholders' roles, and most importantly mind-sets and mentalities.

References

Abas, Z. W. (1995). Implementation of Computers in Malaysian Schools: Problems and Successes. In Watson, D. & Tinsley, D. (Eds.). *Integrating Information Technology into Education*, (pp. 151–158). US: Springer.

Albion, P. R., & Ertmer, P. A. (2002). Beyond the Foundations: The Role of Vision and Belief in Teachers' Preparation for Integration of Technology. *TechTrends*, *46*(5), 34-38.

Albirini, A. (2006). Teachers' Attitudes toward Information and Communication Technologies: The Case of Syrian EFL Teachers. *Computers & Education*, *47*(4), 373-398.

Askar, P., & Umay, A. (2001). Pre-Service Elementary Mathematics Teachers' Computer Self Efficacy, Attitudes Towards Computers, and their Perceptions of Computer-Enriched Teaching Environments. *Technology and Teacher Education Annual*, *3*, 2262-2263.

Blackwell, C. K., Lauricella, A. R., Wartella, E., Robb, M., & Schomburg, R. (2013). Adoption and Use of Technology in Early Education: The Interplay of Extrinsic Barriers and Teacher Attitudes. *Computers & Education*, *69*, 310-319.

Blankenship, S. E. (1998). *Factors Related to Computer Use by Teachers in Classroom Instruction* (Unpublished doctoral dissertation). Virginia Polytechnic Institute and State University, USA.

Bollin, G. G. (2003). The Realities of Middle School for Mexican Children. *The Clearing House*, *76*(4), 198-201.

Bullock, D. (2004). Moving from theory to practice: An examination of the factors that preservice teachers encounter as the attempt to gain experience teaching with technology during field placement experiences. *Journal of Technology and Teacher Education*, *12*(2), 211.

Chambers, A., & Bax, S. (2006). Making CALL Work: Towards Normalisation. *System*, *34*(4), 465-479.

Christensen, R. (1998). *Effect of Technology Integration Education on the Attitudes of Teachers and their Students.* (Unpublished doctoral dissertation). University of North Texas, USA.

Davis, F. (1989). Perceived Usefulness, Perceived East of Use, and User Acceptance of Information Technology. *MIS Quarterly*, *13*(3), 319–340.

Gardner, R. C. (1980). On the Validity of Affective Variables in Second Language Acquisition: Conceptual, Contextual, and Statistical Considerations. *Language Learning*, *30*(2), 255-270.

Gruba, P. (2004). *Computer Assisted Language Learning (CALL)*. Blackwell Publishing Ltd.

Hassad, R., A. (2007). *Development And Validation of a Scale for Measuring Instructors' Attitudes toward Concept-Based or Reform-Oriented Teaching of Introductory Statistics in the Health and Behavioral Sciences* (Unpublished doctoral dissertation). Touro University International, USA.

Huang, H. M., & Liaw, S. S. (2005). Exploring Users' Attitudes and Intentions toward the Web As a Survey Tool. *Computers in Human Behavior*, *21*(5), 729-743.

Kersaint, G., Horton, B., Stohl, H., & Garofalo, J. (2003). Technology Beliefs and Practices of Mathematics Education Faculty. *Journal of Technology and Teacher Education*, *11*(4), 549-577.

Mumtaz, S. (2000). Factors Affecting Teachers' Use of Information and Communications Technology: A Review of the Literature. *Journal of Information Technology for Teacher Education*, *9*(3), 319-342.

Nunnally, J. C., Bernstein, I. H., & Berge, J. M. T. (1967). *Psychometric Theory* (Vol. 226). New York: McGraw-Hill.

Sabzian, F., & Gilakjani, A. P. (2013). Teachers' Attitudes about Computer Technology Training, Professional Development, Integration, Experience, Anxiety, and Literacy in English Language Teaching and Learning. *International Journal of Applied Science and Technology*, *3*(1), 67-75.

Saye, J. W. (1998). Technology in the Classroom: The Role of Dispositions in Teacher Gatekeeping. *Journal of Curriculum and Supervision*, *13*(3), 210.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, *27*(3), 425-478.

Yildirim, S. (2000). Effects of an Educational Computing Course on Preservice and Inservice Teachers: A Discussion and Analysis of Attitudes and Use. *Journal of Research on computing in Education*, *32*(4), 479-495.

Yuen, A. H., & Ma, W. W. (2002). Gender Differences in Teacher Computer Acceptance. *Journal of technology and Teacher Education*, *10*(3), 365-382.