*Original Paper*

# Does It Really Help? Merits and Demerits of CALL Implementation as Perceived by Jordanian Primary-Stage EFL Teachers

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*Abstract*

*This research examines the merits and demerits of CALL implementation in Jordanian primary education as perceived by 200 primary-stage EFL teachers. A questionnaire was constructed and used to collect the data. The findings reveal that the most frequently perceived merits are immediate feedback, motivating students learning, initiating more interaction, excitement and enjoyment, and language skills integration. On the other hand, the most frequently perceived demerits of CALL implementation were found to be insufficient number of computers, technical problems, student view of the computer as an entertainment tool, weak student computer skills, and cost. The study concludes with a number of pedagogical implications and recommendations for further research.*

*Keywords*

*CALL implementation, demerits, Jordan, merits, TEFL*

## 1. Introduction and Background

For the past few decades, technology has been prevalent in every aspect of modern life. The computer, having a marked pedagogical potential to affect the way teaching and learning are viewed, has been utilized in teaching language around the world. This has led to the prominence of Computer-Assisted Language Learning (CALL) in language instruction in general and Teaching English as a Foreign Language (TEFL) in particular despite a de facto consensus that the computer is a teaching tool rather

than a teacher substitute (cf., Frizler, 1995; Higgins & Johns, 1984; Kenning & Kenning, 1993; Levy, 1997).

The literature documents a long tradition of using visual aids (e.g., posters, videos, overhead projectors, language laboratories) in the language classroom to supplement instruction (Higgins & Johns, 1984). The prominence of the computer, one of the latest of these innovations, makes it essential for all stakeholders to acquire basic computer skills, not to mention that, for instructional computer use to be effective for teaching, access to hardware and software is of the essence.

A plethora of research (e.g., Almekhlafi, 2006; Ayres, 2002; Baniabdelrahman, Bataineh, & Bataineh, 2007; Bataineh & Mayyas, 2017; Bataineh, Bani Khalaf, & Baniabdelrahman, 2018; Harris, Mishra, & Koehler, 2009; Mayyas & Bataineh, 2019; Robert, 2002) reports on the utility of technology integration into teaching and learning in general and in teaching and learning language in particular. Not only has the computer been reported to facilitate students' learning (Goldman, Cole, & Syer, 1999) but also to develop their ability to learn independently, analyze information, think critically, solve problems (Chavez, 1997), and increase their reading speed and comprehension (Kulik, Bangert, & Williams, 1983). Frizler (1995), for example, claims that even though they will never replace teachers, computers can provide excellent and fairly inexpensive materials to support classroom instruction. Computers have also been found not only to promote visual, verbal and kinesthetic learning, higher-level thinking, and problem-solving (Turnbull & Lawrence, 2002) but also to offer immediate feedback, hands-on learning, and collaborative instruction (e.g., Becker, 2000; Smith, 2008; Zapata, 2004).

However, even though instructional technology has been expected to revolutionize the way teachers teach, learners learn, and schools deliver education, research (e.g., Cuban, 2001; Mumtaz, 2000; Warschauer, 2001) documents a divide between the claims made for Information and Communication Technologies (ICTs) and their actual effect on education. This divide has been attributed to material conditions like the insufficient computers and software and non-material conditions like insufficient ICT knowledge, skills, and experience and teacher time (Pelgrum, 2001).

More specific to the context of this study, Jordan started to integrate technology in formal education in the mid-1990s. Over the years, the Ministry of Education (MoE) has initiated a number of significant educational reforms, some of which are communication-oriented curricula, up-to-date teacher training programs, and personal computers for all schools. Thousands of computers were brought into public schools, bringing the average ratio of student to computer from 43:1 in 2001 (Bataineh & Baniabdelrahman, 2006) to a range of 10:1 to 30:1 in 70 percent of Jordanian public schools and Internet connectivity for over 85 percent of all public schools (UNESCO, 2011).

## 2. Rationale, Purpose and Question of the Study

Jordan started to integrate technology in its schools in the mid-1990s, as government began to invest heavily in the provision of computers to schools and in the training of teachers. To the authors' best knowledge, there has not been any research on the merits and demerits of CALL implementation in the Jordanian EFL context to date.

Therefore, the purpose of this research is to identify the merits and demerits of CALL implementation as perceived by Jordanian primary-stage teachers. More specifically, the authors seek answers to the question, *what are the merits and demerits of CALL implementation in Jordan as perceived by primary-stage teachers?*

Research (e.g., Atkinson & Davies, 2005; Domengo, 2007; Traynor, 2003; Stepp-Greany, 2002) reveals numerous advantages of computer use in teaching and learning: promoting experiential learning through using the vast resources of the Web, fostering autonomous learning, promoting student motivation for learning, round-the-clock access to authentic materials, interaction with peers or native language users, and opportunities for global understanding, not to mention visualization and reduction of learner anxiety.

On the other hand, an equally rigorous body of research (Gips, DiMattia, & Gips, 2004; Kenning & Kenning, 1993; Underwood, 1984) suggests certain disadvantages for CALL implementation: the potential increase in cost, decrease in the equity of education, software quality, and insufficient teacher experience with ICT.

The literature (e.g., Lai & Kritsonis, 2006; Lu, Liu, Fotouni, Dong, Reynolds, Aristar, Ratliff, Nathan, Tan, & Powell, 2004; Thelmadatter, 2007) seems to also suggest that, unlike their more technologically competent counterparts, technologically incompetent teachers tend to think that computers are worthless or even harmful. Additional obstacles include time pressures in- and outside the classroom (Lam, 2000; Levy, 1997; Reed, Anderson, Ervin, & Oughton, 1995; Smerdon, Cronen, Lanahan, Anderson, Iannotti, & Angeles, 2000; Strudler, Mckinney, & Jones, 1999); lack of resources (Loehr, 1996), insufficient or inflexible guidelines, standards, and curricula (Langone, Wissick, Langone, & Ross, 1998); lack of support for computers integration (Grau, 1996; Strudler et al., 1999); lack of proper leadership (Smerdon et al., 2000); and inadequate training and technical support (Abdal-Haqq, 1995; Lam, 2000; Langone et al., 1998; Levy, 1997; Smerdon et al., 2000).

Some of the claims presented above have been mirrored in the observations of the current researchers as well as other fellow practitioners. In their rather extensive experience as teacher trainers and language instructors, they have heard a lot of concerns voiced out by pre- and in-service teachers alike. For example, claims similar to those made by Thelmadatter (2007) to the effect that CALL implementation is often misunderstood as solely acquiring hardware without paying serious attention to software or proper training are often heard in institutions of higher learning all over Jordan.

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## 3. Methods and Procedure

Based on a thorough review of the literature and the authors' collective experience, a questionnaire (Note 1) was designed. It consists of three parts: one for respondents' demographic information, one for the merits, and the third for the demerits of CALL implementation. To establish its validity, the questionnaire was refereed by three experts in educational technology whose feedback was used to modify the questionnaire prior to distribution to 200 (110 male and 90 female) EFL primary-stage teachers in the public schools of the northern region of Jordan.

## 4. Findings and Discussion

The data were analyzed, categorized and tabulated. The subjects' responses revealed a number of perceived merits and demerits of CALL implementation. Tables 1 presents the perceived merits of CALL implementation:

**Table 1. Perceived Merits of CALL Implementation**

| No | Merit | n | % |
|----|-------|---|---|
| 1 | immediate feedback | 184 | 92 |
| 2 | motivating student learning | 181 | 90.5 |
| 3 | initiating more interaction | 180 | 90 |
| 4 | excitement and enjoyment | 179 | 89.5 |
| 5 | language skill integration | 176 | 88 |
| 6 | flexibility | 175 | 87.5 |
| 7 | fostering individualization | 171 | 85.5 |
| 8 | fostering learner-centeredness | 168 | 84 |
| 9 | helping shy students | 167 | 83.5 |
| 10 | exchanging experience with others | 166 | 83 |
| 11 | self-paced progress | 165 | 82.5 |
| 12 | animation | 163 | 81.5 |
| 13 | more student participation | 161 | 80.5 |
| 14 | learning extension | 161 | 80.5 |
| 15 | less time and effort | 154 | 77 |
| 16 | novelty of experienced | 153 | 76.5 |
| 17 | variety | 143 | 71.5 |
| 18 | technology support | 137 | 63.5 |

Table 1 shows that the top merits of CALL implementation, perceived by the respondents, are *immediate feedback, motivating student learning, initiating more interaction, excitement and enjoyment*, and *language skill integration* with 92%, 91%, 90%, 89.5%, and 88%, respectively.

That *providing immediate feedback* is the most frequently perceived merit of CALL implementation is consistent with earlier findings (e.g., Bani Hani, 2009; 2014; Murphy, 2007; Sauro, 2008; Ware, 2008), which can also be attributed to, unlike teachers, computers never forget to provide immediate feedback. Providing immediate (and continuous) feedback may readily be a catalyst for improving not only students' participation but also their motivation for learning, which may, in turn, improve their achievement and encourage further learning.

Moreover, that CALL implementation is perceived to initiate more interaction may constitute another catalyst for language learning, especially in light of emergent types of interaction (e.g., class-class and school-school interaction over the Web) in addition to the more traditional student-computer and computer-student interaction. One should also keep in mind that since the computer doubles as a means of entertainment, it is not surprising that the respondents perceive CALL implementation in the classroom as a source of excitement and fun.

The integration of the four language skills is potentially made more possible with CALL implementation. As the Jordanian MoE is keen on skill integration in the English curriculum at all levels, CALL implantation may come in handy for achieving and facilitating this goal, which may be why teachers perceived this as a major merit of CALL implementation.

It is worth noting that CALL implementation overall is viewed favorably by the respondents, as evidenced by the fact that the least perceived merit, *technology support*, got a rather high percentage of 63.5%. However, CALL implementation was also perceived to have a number of demerits, as shown in Table 2.

**Table 2. Perceived Demerits of CALL Implementation**

| No | Demerit | n | % |
|----|---------|---|---|
| 1 | insufficient number of computers | 189 | 95 |
| 2 | technical problems | 186 | 93 |
| 3 | student view the computer as an entertainment tool | 183 | 91.5 |
| 4 | lack of student computer skills | 183 | 91.5 |
| 5 | high cost | 178 | 89 |
| 6 | need for more time | 175 | 87.5 |
| 7 | need for more teacher training | 172 | 86 |
| 8 | inappropriate for large classes | 170 | 85 |
| 9 | fewer chances for weak students | 163 | 81.5 |
| 10 | lack of well-designed software | 162 | 81 |
| 11 | insufficient teacher experience | 158 | 79 |
| 12 | inability to control students | 155 | 77.5 |
| 13 | physical problems | 154 | 77 |
| 14 | fear of teacher replacement | 143 | 71.5 |
| 15 | slow computers | 139 | 69.5 |
| 16 | need for continuous updating | 124 | 63 |
| 17 | difficulty of lesson preparation | 121 | 6o.5 |
| 18 | potentially vague instructions | 112 | 56 |

Table 2 reveals that the most frequently perceived demerits are *inadequate number of computers, technical problems, student view of the computer as a means of play and entertainment, lack of students' computer skills*, and *high cost*, with 95%, 93%, 91.5%, 91.5%, and 89%, respectively.

That the *inadequate number of computers* is perceived as the major demerit of CALL implementation (with a sweeping 95%) is hardly news given the large number of students in classrooms across Jordanian primary education. Albeit a serious problem, this can be overcome by pairing, or even grouping, students around each computer. Empirical evidence abounds on that students benefit most when they work on the computer in pairs (e.g., Murphy, 2007; NAEYC, 1996), for despite the efforts of the MoE, its schools still suffer from a shortage in computers, a matter which warrants immediate attention and feasible alternatives.

Understandably, *technical problems* are the second most frequently perceived demerit of CALL implementation. Rarely does a school have a qualified technician in residence, but, more often than not, one or more computer teachers are responsible for the computer laboratory, which generally results in recurrent computer breakdowns and Internet service interruptions. By the same token, that *cost* is fifth most frequently perceived demerit is not only consistent with findings of previous research (e.g., Higgins

& Johns, 1984; Thelmadatter, 2007) but also limits the type of measures the MoE can take to overcome this problem (e.g., providing a computer technician for each school).

## 5. Implications and Recommendations

Much research has been conducted on the effect of computer use on the various aspects of the teaching/learning process. However, relatively little research has been conducted on the merits and demerits of CALL implementation in teaching in general and teaching English as a foreign language in particular. Since the use of technology has to be driven by pedagogy, pre-service teacher training should include coursework to provide teachers with optimal levels of computer knowledge and skill to enable them to better use technology to support teaching and learning. The researchers further urge scholars to conduct more research on students and teachers' need for instructional technologies, on computer use for the integration of the four language skills, and on subsidizing CALL implementation.

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**Note**

Note 1. For a copy of the questionnaire, contact the corresponding author at rubab@yu.edu.jo