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Teacher training and teachers' attitudes towards educational technology in the deployment of online English language courses in Jordan

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Abstract

The present paper details the experience of designing and running the first online English language courses at Yarmouk University with the support of the Open University of Catalonia. The courses fall within the framework of the EQTEL project, which aims to develop and implement accreditation standards, guidelines and procedures for quality assurance of online courses in Jordanian universities. The focus of the research was to evaluate the course from the teachers' perspective while identifying possible stumbling blocks and challenges that could be used to refine and enhance the course and the teacher preparation program in successive iterations. Teachers completed a questionnaire that sought to reveal their beliefs, attitudes and experiences using technology for language instruction. The study concluded that teachers perceive more affordances in using technology to practice receptive skills (listening, reading) than productive skills (speaking, writing). Teachers evaluated the teacher preparation prior to the course as

sufficient but expressed contradictory attitudes towards using technology for language instruction which need to be understood within the context of the institutional culture and the decision-making process behind technology adoption.

Keywords: teacher attitudes towards technology; integrated CALL; teacher training; instructional technology; EFL

Introduction

Informal Computer-Assisted Language Learning (CALL) preparation as opposed to formal teacher training has been found to determine to a large extent teachers' attitudes towards technology-enhanced language teaching (Kessler, 2007). Besides institutional support, overcoming obstacles when using technology for language instruction also requires positive attitudes towards technology-enhanced teaching on the part of the teachers (Kadel, 2005).

This study seeks to determine the role teachers' attitudes play in the adoption of completely online English as a foreign language (EFL) classes at a specific Jordanian university. Although preparation and course orientations were provided, the abrupt disruption of traditional models that these courses brought should be considered. This study provides additional evidence to broaden the scope and complement an earlier study by Atoum, Al-Zoubi, Jaber, Al-Dmour, and Hammad (2017) which aimed to determine the feasibility of an online mode of content delivery in the Jordanian higher education context. Atoum et al. (2017) examined the success of the e-learning mode compared with the traditional face-to-face mode in an English language course offered to freshman students in several Jordanian institutions. This same course will be the focus of the present study.

Atoum et al. (2017) studied several measures including teachers' evaluations, course grades, learners' attitudes towards the course and course evaluations to

determine that 'the quality and learning outcomes of the eLearning method in teaching the English course [were] not significantly different from those of the traditional method of learning for the same course with the same content.' (Atoum et al., 2017: 11). However, course instructors pointed to several issues in the qualitative evaluation of their online teaching experience. Namely, difficulties in following up on some students who did not take the course seriously, the importance of teachers' and students' readiness to work online and the need to provide guidance and support for students in their mother tongue. Although most faculty members regarded the course as a positive experience, they noted the need to provide continuous orientation for students and training and technical support for faculty members.

The present study seeks to shed light on some of the earlier findings by focusing on the teachers' perspective regarding their experience teaching the English class online. The study aims to reveal English teachers' attitudes towards using instructional technology and explore whether these attitudes have changed over time.

Research Questions

- What are the beliefs and attitudes of the participating teachers towards the use of technology for language instruction?
- What type of preparation did these teachers have prior to their first online teaching experience?
- How did their beliefs and attitudes evolve over time?

Teacher attitudes towards technology

Much of the research conducted so far deems teacher attitudes toward technology as a crucial element that determines the extent and ease of technology adoption (Kadel, 2005). Consequently, negative attitudes towards technology-enhanced educational

solutions on the part of teachers will undermine or even jeopardize efforts to implement them at institutional level. Several authors have researched, uncovered and inspected the underlying factors that determine teachers' attitudes towards technology which range from institutional culture to the involvement of faculty in decision-making about technology implementation, and resistance to change.

Vodanovich and Piortrowski (2004) claim that even teachers who have experience and positive attitudes towards the use of technology may find themselves alienated from this practice by the institutional culture of the context where they teach. Essentially, they conclude that positive attitudes do not suffice if other barriers such as a lack of administrative support or preparation time to implement technology exist. In that sense, when faculty members are mere recipients of change rather than participants in the decision-making leading to that change, they will be less likely to embrace it (Mitchell, Parlamis & Claiborne, 2014). Moreover, upholding the decision on whether to adopt certain technology solutions will depend on their situation in the institution, their ability to exert both autonomy and academic freedom (Wilson & Stacey, 2004). Consequently, we should not undermine faculty's power, as it can determine to a large extent the failure or success of such initiatives (Mitchell, Parlamis & Claiborne, 2014, p.354). Comas-Quinn (2011) also points out that effective teacher training has a great impact on attitudes towards online teaching and that teachers' willingness to change is in turn influenced by learners' expectations, shared ideas about language learning and their respective roles in the process.

Mitchell et al. (2014)'s research sought to identify and examine the sources of faculty resistance to online education, which range from resistance to change, degree of involvement in the process of change, positive hopes about the potential of the change together with concerns about its risks, to personal factors (personality traits and needs).

The authors discuss all these and categorize them under the following sources of faculty resistance:

Table 1. Sources of faculty resistance.

- (a) cultural assumptions and values
- Switch from teacher-centered to learner-centered instruction
- Validation of student identity
- Plagiarism issues
- (b) fears of the unknown, loss, and failure
- Viewing technology as something they do not know (solved by training)
- Viewing technology as a time-consuming medium (preparation & feedback to students 24/7)
- Feeling comfortable with their teaching model and fearing that their teaching strategies may fail in the new online environment
- (c) fear of disruption of interpersonal relationships
- Fearing the loss of personal relationships with students
- (d) concerns about the external impact
- Expressing concerns about the impact the change will have on the reputation of the college or university

Finally, Mitchell et al. (2014) stress that faculty play an essential role in the change process and their resistance reveals the need for models that allow them to take part in that change, although the authors point out that most online models continue to be based on top-down decisions. Tagg (2012) notes that patterns of faculty resistance to change can be linked to teachers' cognitive biases, namely the endowment effect and loss aversion.

Several other empirical studies have also examined the factors influencing faculty adoption of innovation (Wilson & Stacey, 2004) and their perceived obstacles to adoption of technology for language teaching (Hedayati & Marandi, 2014). Wilson and Stacey (2004) point out that teaching staff do not embrace change at the same pace, or in the same way. Some are more reluctant than others to adopt new technologies into their practice. Gaining an understanding of the factors that influence adoption of

innovation helps determine the design and content of staff development programs to prepare faculty to integrate technology into their teaching.

Hedayati and Marandi (2014) investigated the obstacles a group of Iranian EFL teachers perceived regarding CALL implementation in Iran. Their study reveals that Iranian EFL teachers do not usually integrate digital technology into their classes. They classify the obstacles in implementing CALL in language classrooms into three categories: teacher, facility and learner constraints, and conclude that teacher constraints play a major role in implementing CALL due to the lack of teacher preparation.

Teachers' attitudes towards instructional technology are analyzed by Wiebe and Kabata (2010) who examined instructors' journals to determine whether there is a gap between instructors' assumptions and students' behavior in using technologies. The authors concluded that instructors often lack a good understanding of their students' use of technologies and learners also fail to understand their teachers' goal in using technology in their classes, although overall both learners and instructors have positive thoughts about the role of CALL materials.

Sapp and Simon (2005) establish a connection between learner drop out and grading patterns in online courses, as compared to traditional ones. Their study examines faculty evaluation of different sections of the same class (two online, two traditional) and reveals that teachers provide more empathic and appropriate subjectivity in assessing learners' performance in traditional classes, whereas they find fewer instances of the same behavior in online classes. In addition, they observe that learners enrolled in online writing courses either thrive and obtain good grades or struggle and receive poor grades. The authors underline the importance of establishing a way of replicating in online settings the interpersonal contact between teachers and learners that usually exists in traditional classes. They claim that the lack of empathy

with learners' behavior exerted by teachers in online classes may affect their assessment of learners' performance.

Although it falls out of the scope of the present paper, learners' attitudes towards technology have often been included in the narratives of research studies which examine teachers' attitudes towards technology. Learners' learning outcomes (Emerson & MacKay, 2011) and learners' attitudes have been identified as determining success factors in online learning programs by Hailey, Grant-Davie and Hult (2001), Finegold and Cooke (2006), and Prior, Mazanov, Meacheam, Heaslip, and Hanson (2016). Similarly, other authors (Boyd, 2008) analyze learners' perceptions and evaluations of online courses to identify the key factors that most influence their satisfaction with the course and the instructors: interactions with instructors and meaningful discussion forums with a clear purpose and audience.

Given that teacher training has been frequently identified as one of the factors that can potentially have a great impact on fostering positive attitudes towards online teaching (Comas-Quinn, 2011), the following section will be entirely devoted to examining this topic.

Teacher training in CALL or blended settings

Teacher training in CALL has been approached from several perspectives mainly focusing on teachers' technological skills, digital literacy (Kessler, 2006) or computer readiness or on familiarizing them with the constantly shifting landscape of the latest trends in software and web or smartphone applications (Compton, 2009). As Hampel and Stickler (2005) and Comas Quinn (2011) rightly point out, these skills are easy to acquire at the user level, but they have a limited effect on teaching practices unless the training addresses other issues such as the possible pedagogical applications of these tools and skills for language teaching and learning. Moreover, teacher development

programs need to emphasize 'other skills, such as facilitating online socializing and community building, [which] can be more challenging. Nonetheless, these [other] skills are essential to promote social cohesion that is necessary for meaningful communicative interaction.' (Compton, 2009, p.95).

Similarly, CALL training is not being optimally addressed in pre-service (Kessler, 2007; Hubbard, 2008; Abras & Sunshine, 2008) and in-service teacher training (Comas Quinn, 2011) either. Kessler's (2007) study examines the role of CALL within teacher training to determine the role informal and formal means of CALL-related teacher training play in preparing teachers to use technology effectively. The disturbing conclusion that the author draws from his study is that teachers' informal training is significantly more effective than the formal training they receive in the pedagogical use of technology.

One of the first issues to be tackled in teacher training programs is identifying the skills teachers need to acquire to be able to excel in CALL or blended settings. After reviewing current online language teaching skills and questioning other existing skills frameworks, Hampel and Stickler (2005) point out the difficulties that exist in identifying online language teaching skills. They put forward a framework of essential online teaching skills that details the roles and responsibilities of all stakeholders involved in online language learning programs. Their proposed framework covers three skills categories, namely technology, pedagogy and evaluation for different levels of teacher expertise ranging from novice to expert.

Hampel and Stickler (2005) stress that teachers need to modify their teaching style to become effective facilitators of learning and their main role switch from leading a classroom to socializing with learners in the online classroom to build a community of inquiry (Garrison & Cleveland-Innes, 2005; Garrison et al, 2001; Garrison et al, 2010).

As evidenced in their pyramid of skills for successful online teaching, teachers need training 'in basic ICT use, software-specific application, and the affordances of the medium without forgetting to include online socialization of communities of learners which facilitate communicative competence' (Hampel & Stickler, 2005, p.323).

In-service teacher training often offers ad-hoc training for their staff which helps them understand the roles and responsibilities of their specific online learning program (Comas-Quinn, 2011; Ernest & Hopkins, 2006), but fails to help them incorporate this understanding into their personal teaching style. Some teachers are naturally inclined to online teaching, making their training and transition into the online medium effortless, while others need to be convinced of the affordances of this medium. Similarly, Kubanyiova (2009) and White and Ding (2009) point out that the process of becoming effective online language teachers will be much easier for those who are already eager and willing to become one, but for those who do not envisage themselves as online teachers, the training must persuade them of the benefits of online teaching first.

Comas-Quinn (2011) argues that the traditional transmissive knowledge model that is often used during the teacher training process hinders the necessary transformation that teachers 'identity' must undergo because of the transition from traditional to online teaching.

Specifically, the author evaluates the impact that the introduction of blended learning in a distance language learning course has had on teachers and examines their diverging opinions about the different tools. She concludes that teachers prefer limited one-directional tools and view the integration of online tools in the course as a major challenge. Finally, teachers also voice time concerns as learning becomes too distributed, which constricts teaching time.

In their study of the relationship between confidence and innovative and integrated classroom, use of CALL, Kessler and Plakans (2008) conclude that CALL teacher training may benefit from a focus on developing teacher skills in certain teaching domains or types of technology, rather than expecting them to acquire a high level of confidence with technology across domains. They discovered that very confident users of technology failed to demonstrate consideration for the unique demands of a learning environment. However, confident teachers, although usually more hesitant about technology, seemed to integrate it better into their teaching practice.

In their analysis of the attributes and expertise required by language tutors in distance education, Shelley et al. (2006) conclude that 'there is a need to explore the ways in which language tutor attributes and expertise develop and change, not only as tutors acquire more experience, but as they enter new environments, particularly online environments and virtual support networks.' They also point out the importance of relating those attributes to their teaching practice and to finally being able to reflect once again on the qualities they managed to develop in the process of being trained.

The control over materials and connections with students, identified as a main concern by the instructors that Murday, Ushioda, and Chenoweth (2008) interviewed after teaching a blended language learning course, are two other important points which need to be addressed in teacher training programs.

Context

The language center at Yarmouk University provides six thousand students a year with several English language courses (ranging from elementary to advanced), among them the compulsory Intermediate English course for undergraduates which is the focus of the present research. The English course under scrutiny was designed mirroring its face-to-face counterpart, a mandatory English course for freshman-year students offered

every term at Yarmouk University. The course, designed to develop intermediate English language skills in order to pursue a university education (the equivalent of CEFR B1 to B1+), focuses on the development of receptive skills (listening, reading, grammar and vocabulary) to be able to read and understand material in English in the student's area of specialization.

During the first iteration in its online version¹ at Yarmouk University in the Spring of 2016, the online version² of the course attracted 122 students. Half of the freshman students who had to take the mandatory English course upon entering the university registered for its online version. After graduating from high school and during their first year at the university, all students are directly placed in this course regardless of their English proficiency. The online course had an average of 40 students per class during the first iteration, but classroom size increased in following iterations until reaching an average of 54.2 students per class (see Atoum et al. 2017). The instructors teaching the online version were also each teaching one of the face-to-face sections of the same course.

The online English course

The E-Learning ENG 101 course was developed by a multidisciplinary team, which included three English instructors from the language center, one instructional designer (one of the authors of the present paper), a technician from the computer center, and an administrator from the language center. The other author of the present paper did not

1 In its first iteration, the course was designed as a pilot experiment conducted as part of the activities of the European Tempus project mentioned in the introduction.

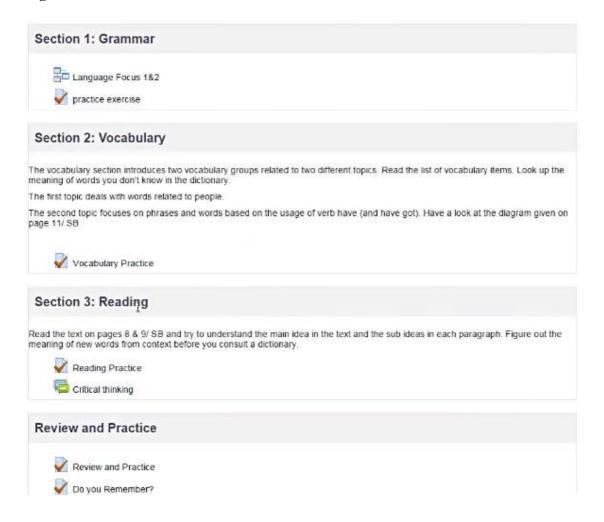
² Currently, the English 101 course is only offered online, so it's face-to-face counterpart is not being offered anymore.

take direct part in setting up or teaching the course. As a university professor with a strong background in CALL, her role was to advice, oversee and evaluate the design and creation of three online courses in the Jordanian higher education system as a part of the international team evaluating the project which Atoum et al. (2017) present in greater detail. After discussing pedagogical questions regarding the specificities of online instructional design compared with face to face instruction, the team developed a shared vision of delivery strategies and course instruction which was to be based on a combination of lecture notes, language exercises, group discussions, formative and summative assessment (some self-assessment) and video tutorials (both on language points and on navigating the virtual learning environment or VLE).

Issues around offering the course as a blended, hybrid or fully online program were discussed, together with the pros and cons of each option given the large number of students who were taking the class, the administration's willingness to integrate technology into teaching and learning as part of the university's strategic planning, and instructors' beliefs that technology integration can enhance teaching and learning especially when it comes to language. The team concluded that offering the class in a fully online mode ensured that every student would be provided with the same required resources and materials, as well as supplementary materials: either existing videoresources about specific grammar points or additional resources (reading, grammar and vocabulary exercises) created by the instructors to complement the course book which all students had access to: Cutting Edge. Intermediate (Cunningham, Moor & Bygrave, 2013).

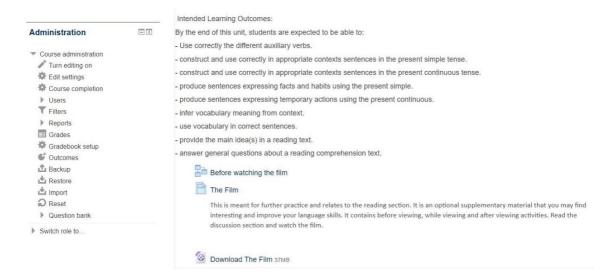
The course is composed of seven units, each divided into three basic sections: grammar, reading and vocabulary.

Figure 1. Unit 1 structure



Each section contains the objectives and learning outcomes (see Figure 2) which are linked to the topics in the course book the students use. The book contains the prerequired activities that learners must complete before they start the section, the assigned readings (mostly in the coursebook) and activities (in the workbook).

Figure 2. Learning outcomes for Unit 1



The pre- and post-assessment automatically graded quizzes with automated feedback are introduced immediately before and after each module/section in order to test both prior knowledge of the subject and the knowledge acquired by the students after working on each section. Each section also contains supporting materials and tutorials that provide additional explanations for the students.

Figure 3. Course structure as seen in the VLE



The grammar sections start with brainstorming exercises followed by an explanation of the grammar points in the unit. In the reading section, after students read a text on a familiar topic (in their textbooks) aiming for general comprehension, they are

provided with either a comprehension questionnaire or a communicative activity where they can engage in discussions about the text with their peers. Finally, the lexical items presented in the vocabulary section are words that students might have come across in the previous two sections. The section focuses on word definitions and provides students with strategies to understand meaning and use in various contexts.

Online homework assignments are set and managed through the VLE where the instructor posts the assignment and students upload their responses (Word or pdf files) for grading. The instructor revises the assignments and uploads grades and feedback comments for each student.

Besides self-assessment quizzes and homework assignments, students take two proctored written exams (a mid-term and a final exam) which assess their reading skills and knowledge of English (grammar and vocabulary). These exams, which are created using a common bank of questions periodically updated and curated by English faculty members, are administered in a computer lab at specific times taking into consideration all authentication measures to validate students' identity.

Before starting the course, two different orientation sessions are provided for the learners: a general one for the three online sections and another specific one for each online classroom. In both orientation sessions, the technical team explains how to use and navigate the different tools and features of the VLE. The teachers explain the course objectives, course completion requirements and learners' participation expectations, and issue instructors' contact information and office hours. As students log in, they watch video tutorials to help them navigate through the VLE and understand its structure. A welcome section (see Figure 4) was added to the VLE prior to the beginning of the course which included a brief description of the course and its objectives, teachers' and learners' roles and responsibilities, the course syllabus (see Figure 5), and a course

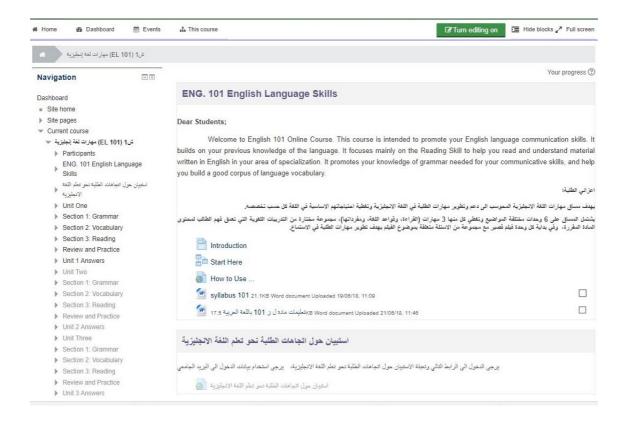
study guide. Information on important dates (beginning, midterms, end of course) and deadlines for quizzes and assignments was also included. Some of the instructions were offered in Arabic to facilitate course navigation and learning.

Figure 4. Welcome message in the VLE



Prior to the beginning of the course the language center provided compulsory online training for teachers in partnership with the quality assurance and accreditation center. The computer center also developed an online guide for teachers and students. This training together with the learners orientation workshops played a major role in the success of this experiment at Yarmouk University.

Figure 5. Main navigation menu and course syllabus



Methodology

To achieve the study objectives, we utilized a mixed methodology approach. The quantitative part was conducted in order to obtain a snapshot of the teachers' attitudes towards using technology for language instruction, whereas the qualitative data helped us gain a deeper understanding of their concerns about the same issues. The quantitative phase started by administering an anonymous online questionnaire based on Kessler's survey (Kessler, 2007) to the 10 instructors at Yarmouk University in the Fall of 2016 who had taught the above-mentioned English course. The questionnaire, designed to explore teachers' attitudes towards using computers for language instruction, was divided into several parts that informed on the teachers' degree of computer readiness (16 items, Tables 2 and 3), their beliefs about technology applied to language teaching (11 items, table 5) including their views on students' computer readiness (5 items, Table 4) and finally teachers were asked three additional questions about the amount and context of the training they received in the use of technology for language instruction.

The questionnaire was completed by six of the 10 teachers (all with more than 10 years' experience as EFL teachers) who ranked their agreement or disagreement with the statements on each item on a five-point Likert response format ranging from strongly agree (5) to strongly disagree (1).

We consider this instrument valid since many authors (Comas-Quinn, 2011; Godwin-Jones, 2015; Haines, 2015) mention the work done by Kessler regarding the need to take into account teachers earlier experiences and online teaching readiness when setting up and assessing teacher developing programmes, their perceptions of the affordances that technology-enhanced language learning environments offer and the lack of widespread teacher training in CALL as determinants of teachers attitudes towards technology adoption (Peterson, 2013, p.7). Although most of the studies point to Kessler's (2007) findings and not so much to the instruments or methodology he used, the survey instrument Kessler (2007) developed presented items 'reflecting the skills and knowledge relevant to successful CALL knowledge and use reflected in the literature' (Kessler, 2007, p.186) which is still highly relevant today.

The qualitative phase began after analyzing the questionnaire results. The researchers developed a series of questions based on the literature review and the questionnaire results to explore teachers' attitudes towards teaching using an online mode to discover whether their attitudes and beliefs had changed over time given that they had taught the class for over four semesters by the time this data was collected in the Fall semester of 2017.

Table 6. Interview questions

Table 0. Then year duestions		
Questions	Source	
How comfortable do you feel about using educational technology for language instruction (access, convenience, outreach to students)?	Kessler (2007) Kessler & Plakans (2008)	

	Vodanovich & Piortrowski (2004) Mitchell, Parlamis & Claiborne (2014)
How much professional development did you receive on using technology for language instruction?	Kessler (2007) Kessler & Plakans (2008) Comas-Quinn (2011) Hedayati & Marandi (2014)
What is the impact of using educational technology for language instruction on learners overall improvement in their language proficiency?	Wiebe & Kabata (2010) + Results of the questionnaire
What is the impact of using educational technology for language instruction on your teaching workload (preparation, follow-up, assessment)?	Emerson & MacKay (2011) + Results of the questionnaire

To collect data, one of the researchers conducted a structured interview with two of the six instructors who had completed the questionnaire. The interviews lasted for one hour and were subsequently transcribed and analyzed by reading and coding major themes that arose. Three main themes emerged from the analysis, namely the belief that technology boosts language instruction, certain limitations of the professional development that the teachers underwent, and ambivalent views regarding students' improvement in their language proficiency.

Findings

As already mentioned in the methodology section, the findings of the present study are divided into quantitative and qualitative results which will be presented in the next two sections.

Quantitative findings

The questionnaire to determine teachers' attitudes towards technology asked about four main domains, namely teachers' degree of computer readiness, teachers' view on students' computer readiness, teachers' beliefs about technology applied to language teaching and the amount and context of the training they received in the use of technology for language teaching.

Table 2 shows the overall means for statements regarding the use of computers for language instruction. The combined measure was 4.0 on a five-point Likert scale which indicates that for the most part the respondents use computers for language instruction. Within this measure, individual items were analyzed to identify which areas seem to fall far below or far above the average.

The respondents showed agreement with the general statement that indicates they use computers for language instruction (4.2) which was to be expected as they were already teaching an online course. They also stated that they create computer-based instructional materials (4.2) and specifically video materials (4.3) for instruction, although the course was designed for them and they only need to provide materials for students on an ad-hoc basis, producing a video explanation or feedback on some of the difficult topics in the course. The other point all the respondents agreed on was that they needed to train students in using instructional materials (4.2). The items where they expressed the least agreement were regarding the use (3.7) and creation (3.7) of computer-based images for instruction, which seems not to be particularly relevant for the development of this course.

Table 2. Mean responses regarding teachers' computer readiness.

I use computers for language instruction	4.2
I use computer-based audio materials for instruction	4.0
I use computer-based video materials for instruction	4.0
I use computer-based images for instruction	3.7
I create computer-based audio materials for instruction	4.0
I create computer-based instructional materials	4.2
I create computer-based video materials for instruction	4.3
I use computer-based solutions for evaluating students	4.0
I create computer-based images for instruction	3.7
I select appropriate web-based materials for instruction	4.0
I train students to use computer-based instructional materials	4.2

Table 3 offers an account of the responses to the statements about the language skills targeted in the computer-based materials these teachers use, which reveal a mean of 4.1, indicating a high degree of agreement with most statements. The highest degree of agreement is shown with the statement that asks teachers about the use of computer-based materials for teaching listening skills (4.5), whereas they regarded the use of computer-based materials for teaching writing skills as the most challenging area (3.7). Although the questionnaire was built so that comments could be added at the end of each section, the only comment received on any of the questionnaire's was entered under this section. One of the respondents stated that 'teaching a language needs face-to-face interaction not computers', which presumably summarizes the authentic overall feelings this respondent had about language learning and technology, as we will see as we continue to analyze data extracted from the questionnaire.

Table 3. Mean responses regarding language skills targeted.

I use computer-based materials for teaching speaking skills	4.3
I use computer-based materials for teaching listening skills	4.5
I use computer-based materials for teaching writing skills	3.7

I use computer-based materials for teaching reading skills	4.0
I use computer-based materials for teaching grammar skills	3.8

When asked about their students' computer readiness to use computers to practice different skills, teachers responded in accordance with their opinions about the use of computers for teaching the different skills on the course. Namely, they regarded listening as the most suitable skill to be developed by their students to improve their English (4.5), while indicating that written skills and grammar would be less important for their students to learn using computers, with a 3.8 score each.

Table 4. Mean responses regarding students' computer readiness.

Students should be able to use computers to help them improve their speaking skills in English	4.3
Students should be able to use computers to help them improve their listening skills in English	4.5
Students should be able to use computers to help them improve their written skills in English	3.8
Students should be able to use computers to help them improve their reading skills in English	4.2
Students should be able to use computers to help them improve their grammar skills in English	3.8

As shown in Table 5, the mean of the combined measure regarding the respondents' opinions about educational technology is 3.8, which is lower than the other three measures (Tables 3 to 5) which fails to indicate anything in particular. For this measure, certain items should have obtained a very positive response, especially when compared with their (negative) counterparts. Ideally, in this table we would like to see respondents mostly disagreeing with negative statements (items 1, 2, 3, 6, 9 and 10), but mostly agreeing with positive statements (items 4, 5, 7, 8 and 11). The average mean for negative statements (3.7) is lower than that of positive statements (3.9), thus showing a slight tendency to disagree with negative statements and agree with positive ones as expected. However, we can observe some inconsistencies upon examining two of the

negative statements closely. The respondents tend to agree with the following negative statements: learning with computers takes students away from important instructional time and teachers are concerned that technology might interfere with student interactions. However, we would expect teachers who have positive attitudes to disagree with these two statements in particular. Among the positive statements, we observe that the respondents showed a tendency towards expressing a neutral opinion when a clearer disagreement should be expected. The fact that the respondents answered to a certain extent in a contradictory way (i.e. agreeing with negative items almost at the same rate as with positive ones) seems to indicate that they failed to express their true opinions in the questionnaire or responded conditioned by what they thought the researchers wanted to hear or generally showing an overall positive evaluation of the course.

Table 5. Mean responses regarding teachers' beliefs about technology applied to language teaching.

1. Technology makes my professional work more difficult	3.3
2. Technology makes my professional work more time-consuming	3.3
3. Using computers for learning takes students away from important instructional time	4.0
4. Computers should be as important and available to students as pencils and books.	3.8
5. I'm confident using technology as a learning resource	3.7
6. I feel out of place when confronted with technology	3.8
7. There is not enough time to incorporate technology into the subject I teach	3.7
8. I really enjoy using computers and the Internet instructionally	4.0
9. I don't believe the quality of English education is improved by the use of technology	3.5
10. I'm concerned that technology might interfere with student interactions	4.0
11. Students should be able to use computers to help them solve problems in English	4.2

Regarding their opinion about the amount of training received, the respondents indicated that they did receive a good amount of training both in their institution (2.2

average out of 3, on a 1 to 3 scale where 1 is none, 2 is to some extent and 3 is yes) and by themselves (2.2 mean). However, the respondents reported receiving little or no prior training (1.5 mean) regarding the use of technology applied to language teaching outside the institution where they were working at the time when the questionnaire was completed.

Qualitative findings

Based on the qualitative analysis, we observed that three themes emerged frequently, namely the fact that technology boost language instruction, the limitations of the professional development, and ambivalent views regarding students' improvement in their language proficiency.

Technology boosting language instruction

Based on the participants' experience of teaching the course for a year and a half, utilizing technology for language instruction was efficient in many ways. According to teacher 1,

'Using technology helped me to: 1) provide credible materials that are linked to the course throughout the semester, 2) provide audio, video, and tutorials that explain the materials in different ways.'

In another part of the interview teacher 1 added that

'Using technology helped us to reach at-risk students. We have students who really struggle with English literacy. Now we can post supportive materials that meet the needs of those students, were they can learn the basics that they missed or the parts they were not good at.'

In a similar fashion teacher 2 points out that

'Learning a second language requires students to be exposed to it regularly.

Offering the class via online platform gave students the ease and affordance to learn it in their free time. Through the weekly assignments and daily readings, students become more engaged with the materials. We were not able to communicate with the students daily in the face to face classroom.'

Teacher 2 also pointed out that technology is a good way of offering teaching outside the walls of the classroom,

'Offering the English class via online mode allowed us to measure students learning. We teach large classes and using the assignment or quiz tool automated grading system helped us to keep track of the progress and struggles of students in the class.'

And in another part of the interview she added that

'Using technology to teach English is helpful in areas like listening and speaking. These areas are hard to teach practically face-to-face because we do not get to practice with the students. Technology offers the tools for students to listen and record. I feel technology can empower English teaching if used efficiently.'

Limitations of professional development

As much as participants felt enthusiastic about integrating technology into language instruction, they expressed that the professional development training was somehow beneficial but limited to two main areas: technology training aspects and content aspects. The participants stated that the professional development was beneficial in teaching them the major functions of the VLE used in the university. Teacher 2 noted

'My knowledge of the e-learning was very minimal before attending the eight sessions over the last two semesters, but now I feel confident using most of the functions in our system.'

However, she added that

'the professional development was not tailored either toward teaching English for non-native speakers or towards using technology for English.'

Teacher 1 commented on her individual progress regarding the use of the VLE:

'I truly feel less worried right now compared with when we started teaching the class. At least now I am not stressed about using the elearning system. I know how to navigate around it and how to guide students. The professional development training was sufficient in that aspect'

Even though she was satisfied with using the E-Learning system, she raised some concerns about the professional development training, reporting

'Throughout the professional training I learned how to use the e-learning system, but not how to design an online English classroom. The training was not tailored to our discipline and students' needs. I did not learn how integrate language instruction into technology, we did not even discuss such topics. I wish we had an English teacher sharing his/her knowledge of teaching English online, and what it means to them.'

Students' improvement in their language proficiency

The teachers pointed out that student achievement was varied to a certain extent depending on the students' field of specialization or major. Teacher 1 noted that

'Medical (medicine, pharmacy, etc.) and engineering students usually perform better than those in the humanities and social sciences. The reason could lie in the fact that the former perform better in high school exams and thus are placed in these fields accordingly.'

Teacher 1 also acknowledged that

'Technology tools helped us to track student progress throughout the semester. We were able to provide feedback so often. Students' grades were almost the same or even better in the online class. I justify the reason why students do better in the class with many reasons, two of the most important are that language needs practice, tracking of learning, and continuous feedback, and technology helped us to accomplish these tasks more efficiently.'

Teacher 2 noted that some students feel more comfortable using computers than sitting in the class taking notes, due to their ubiquitous use of devices such as smartphones. Independently of their prior knowledge of computers, teachers believe that the course provides students with a great amount of practice and exercises at every point, which helps improve student performance and acquisition of the targeted language skills. Regarding preparation and following up on the students' work, the teachers emphasize the amount of involvement, time and effort required for them to provide continuous help throughout the course.

Discussion

The data in the previous section indicates that overall faculty express positive attitudes towards teaching online, voicing their concerns regarding the effectiveness of online language learning to practice productive skills (writing), but expressing positive feelings about the affordances it brings to practice receptive skills. This finding is consistent

with the way this course was set up, mainly to improve learners' receptive skills (listening, reading, grammar and vocabulary), as already detailed earlier in the description of the context of the study. This was confirmed by the data gathered in the interviews, in which the teachers pointed out that students can obtain more individual practice in certain skills (listening) when using technology.

The contradictory answers regarding teachers' opinions about educational technology shown in Table 5, together with the comment voiced by one teacher stating that teaching a language needs face to face interaction and not computers indicate some discrepancies among faculty members. Their mostly positive attitudes towards technology and its adoption for language teaching might be biased in some ways by their level of experience of teaching online versus face-to-face and the expectations and agendas that the governing bodies of the institutions might have for the provision of online courses. Moreover, looking at the individual answers to the questionnaire, there was one teacher who gave the highest rating in all questions (5 in those scaled 1-5 and 3 in those scaled 1-3) which could have skewed the data, especially in the questions where statements were evenly divided between positive and negative.

Regarding teacher training in the shape of professional development for this course, it seems that faculty members were properly trained, even though a majority of them lacked any experience prior to their first online teaching experience. The extent to which this teacher training allowed them to reflect on their teacher identities and incorporate both the technologies as well as another way of understanding and conceiving their teaching practices, as Comas-Quinn (2011) notes, remains to be seen. During the structured interviews, teachers mentioned the limitations of the teacher training in that it provided them with knowledge of the technology itself, but not much about how to use it for language teaching specifically, something which other authors

have also observed (Kessler, 2006; Compton, 2009; Hampel & Stickler, 2005; Comas Quinn, 2011).

Teachers' beliefs and contradictory attitudes towards teaching with technology inferred by the answers to the questionnaires could (negatively) influence their teaching practices, especially if the institution does not put any additional measures in place.

These issues should be addressed by giving faculty members a voice and a say in the way these changes are implemented and by providing them a space to express their concerns, while continuing to provide relevant faculty development programs which incorporate technology-enhanced education and its pedagogical applications.

The beliefs and attitudes towards teaching with technology of the two teachers interviewed clearly evolved over the year and a half that the course had been running, as they can now confidently express some of the affordances of teaching languages using this medium. Specifically, they regard the wealth of materials and resources that the course provides students as very helpful, as well as the fact that they can reach and support students who are struggling with the subject, provide flexibility for students and up closely monitor their progress. These benefits are especially meaningful in the context of Jordan and other countries in the region which are facing serious challenges in terms of access to higher education due to a steady population growth and the strain the current refugee crisis adds. These benefits notwithstanding, the same teachers voiced concerns about the amount of time and involvement required to prepare and teach this course due to the need to meet constant student demands.

Conclusions

Admittedly, the key to satisfactory learning and teaching experiences in online settings lies in the ability to effectively juggle pedagogical approaches, teacher and learner computer readiness and course design. English teachers at Yarmouk University became

aware of the role of technology in language instruction as they began to see and value the potential and opportunities of technology integration. As Desai, Hart and Richards (2009) suggest, teaching online entails recruiting or training faculty who believe in this approach. Indeed, teacher readiness requires continuous professional development to specifically support the skills good online language teachers need to master which will determine to a great extent teachers' attitudes towards using technology for language instruction. In turn, these attitudes will affect their teaching practices and have an immediate effect on their students' learning experiences. In the present study, although most faculty members regarded their first online teaching experience as positive, they emphasized the importance of providing orientation for learners, and training and technical support for faculty members in their discipline.

Another key aspect that will determine the smooth adoption of technology enhanced educational solutions is the role of the institution and its governing bodies. Often, institutional pressure plays a role that is difficult to measure and disclose by asking faculty members directly due to the way current academic culture works. In the Jordanian context, where universities have limited experience with online learning, the issue of teacher training is very relevant and explains certain attitudes which will determine the success or failure of future teaching practices and ultimately the ease and rate at which technology-enhanced solutions are adopted. Therefore, as Jordanian universities are moving towards integrating technology into teaching and learning, it is imperative for educational administrators to consider the design, content and application of training programs.

The following recommendations are drawn both from the extensive literature reviewed and the data obtained from the present study.

Recommendations

- It is essential to provide faculty with e-learning training and strategies to engage students online (Boling, Hough, Krinsky, Saleem, & Stevens, 2012; Compton, 2009; Savenye, Olina & Niemczyk, 2001).
- It is important to allocate enough time for faculty to prepare for the class.
- It is important to ensure that those who register are computer literate or are trained before taking an online class (van Rooij & Zirkle, 2016; Prior et al., 2016).
- There should be a constant support system (two orientation sessions are not enough) and sustained technological support throughout the course (Crook & Cluley, 2009; Comas-Quinn, 2011).

Faculty resistance to change needs to be understood within the cultural context of this study. Additional cultural issues (authority, top-down decisions on the adoption of technology-enhanced solutions), which are common problems with technology adoption in other countries, will determine the success of this type of solutions in the Jordanian context (Mitchell et al., 2014).

Even though the present study focuses on an EFL program at a specific university in Jordan, its results could be generalized to the entire university system in Jordan, which follows a similar policy regarding English freshman-year courses. The results regarding the feasibility of implementing technology-enhanced online language courses could even be generalized and applied to other countries in the region with population sizes, higher education cultures, educational technology penetration rates and languages (Arabic) similar to Jordan.

Limitations

Some of the shortcomings of the current study should be overcome in further research addressing similar topics in the same context. Firstly, we could only obtain answers to the questionnaire from teachers at one of the four universities where the same online English language course was offered. The fact that we obtained data from the teachers at the university which oversaw the creation of the entire course worked to our advantage to gain insights into the course design strategies and procedures that were followed and the extent of the involvement of the different stakeholders. That limited the number of teachers we had access to (only six) and made the questionnaire answers only indicative of the academic culture of one university. The pattern of answers to some of the questions by one individual, as pointed out before, may have skewed the results, but it also prompted us to speculate about the possible motives behind this person's behavior pointing to issues around possible top-down decisions regarding technology adoption.

Finally, the data for this study came mainly from an online questionnaire sent out to faculty members and followed up with interviews with just two of the six respondents to complement and provide additional nuances to help understand some of the issues identified. Even though faculty members at other Jordanian universities have agreed to be interviewed, on completion of this paper, those interviews were not yet available to the researchers and thus could not constitute the complementary data we had hoped to include. We intend to follow up and conduct individual interviews with all the teachers involved in teaching the online version of the English course in five Jordanian universities to delve deeper into some of the issues revealed by this study, namely teacher attitudes and beliefs regarding online language teaching and the possible knock-on effects on their teaching practices, as well as issues around the cultural specificities of faculty resistance that could not be fully developed.

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