:: cogent
education

CrossMark

INFORMATION & COMMUNICATIONS TECHNOLOGY IN EDUCATION | RESEARCH ARTICLE

Effects of CALL-mediated TBLT on motivation for L2 reading

Hossein Tavakoli[1]*, Ahmad Reza Lotfi[1] and Reza Biria[1]

*Corresponding author: Hossein Tavakoli, Department of English Language, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran
E-mail: hntavakkoli@gmail.com

Reviewing editor:
Shuyan Wang, The University of Southern Mississippi, USA

Additional information is available at the end of the article

Abstract: Task-based language teaching (TBLT) has been drawing researchers' and practitioners' interest since its early onset in the 1980s. In a task-based approach, students learn language by doing interesting, relevant, and hands-on pedagogic tasks that raise their interest and keep their involvement. The rich and still developing literature on TBLT is helping to evolve both its theoretical conceptualization and practical implementation in foreign and second language education. Likewise, computer-assisted language learning (CALL) has developed as a field, with the use and integration of technology in the classroom continuing to increase and will continue to play a key role in this maturation process. The present study, hence, reports on an empirical study that investigated the effectiveness of CALL-mediated TBLT on the motivation of Iranian university non-English major EFL students. A significant effect was found for CALL-mediated TBLT ($F = 267.932$, $p = .000$, partial eta squared $= .770$), suggesting CALL-mediated TBLT had a positive effect on the motivation of the students in the experimental group on the posttest. Results of this

ABOUT THE AUTHORS

Hossein Tavakoli, PhD is a member of the academic staff of Izeh Azad University, Khuzestan, Iran. His research interests include language acquisition, language skills, TEFL, research methodology, and interdisciplinary studies. He authored two internationally best-selling books: "A dictionary of research methodology and statistics in applied linguistics" and "A dictionary of language acquisition".

Ahmad Reza Lotfi, PhD is an associate professor of Linguistics at Isfahan Azad University, Isfahan, Iran. He offers courses in linguistics (minimalist syntax, semantics, and pragmatics) to the graduate students of linguistics and ELT. He is a member of the Advisory Board of the LINGUIST list. He also won the Special Award of the Iranian Ministry of Culture in 2014 for compiling a "Dictionary of Linguistic Terms in Competition-Based Grammars".

Reza Biria, PhD is an applied linguistics associate professor working at Isfahan Azad University, Isfahan, Iran. Dr. Biria has published papers in national and international conferences. His research interests include teaching English as a second and foreign language and ESP.

PUBLIC INTEREST STATEMENT

One reason for families' dissatisfaction with second/foreign language learning and teaching is related to the existence of the traditional way of language teaching. This traditional way of teaching includes instructional practices that are referred to as "prompting" because they involve the prompting and "drilling" of students. These practices are also described colloquially as "drilling and killing," "memorizing," "answering and not questioning," "checking and not correcting." In contrast to this behaviorist approach, this study speculates that a constructivist instructional practice such as task-based language teaching (TBLT) in conjunction with computer-assisted language learning (CALL) might foster students' motivation in L2 reading. This issue has been little investigated within the CALL-mediated TBLT context. Therefore, it seems logical to hypothesize that students' motivation plays an important role in successful implementation of CALL-mediated TBLT and that, if used effectively, this new teaching and learning context can increase students' motivation.

cogent--oa

cogent ·· education

study have both theoretical and practical implications and might shed light on the gap between the potentials and affordances of CALL-mediated TBLT.

Subjects: Computer Science; General; English Language; Language Teaching & Learning

Keywords: task-based language teaching (TBLT); computer-assisted language learning (CALL); CALL-mediated TBLT; motivation

1. Introduction
For the past 30 years, task-based language teaching (TBLT) has drawn the attention of second language acquisition (SLA) practitioners, researchers, educators, curriculum developers, language teachers and trainers all over the world (Van Den Branden, 2006). TBLT was coined and matured by SLA researchers and language educators, mostly in reaction to empirical studies of teacher-dominated and form-oriented second language (L2) classroom practice (Long & Norris, 2000). The rise of TBLT into the world of language education has been largely a top-down and process-oriented path to language teaching that places communicative language teaching (CLT) at the heart of curriculum design and instructional goals (Littlewood, 2004; Nunan, 2004; Richards, 2005).

Likewise, computer-assisted language learning (CALL) has grown as a field, with the use and integration of technology in the classroom continuing to rise (Petersen & Sachs, 2015) and will continue to play an essential role in this maturation process (Lai & Li, 2011). In their seminal paper, Doughty and Long (2003) talked about the affinities of TBLT and technology: technology provides a natural and authentic ground for the implementation of the methodological principles of TBLT, and TBLT, in turn, provides a pedagogical and rationale framework for the adoption and use of technology.

Concerning learner-based and psychological factors, a number of studies have indicated that motivation (e.g., Brandl, 2002; Desmarais, 2002; Doherty, 2002; Gilbert, 2001; Murday & Ushida, 2002; Warschauer, 1996a, 1996b) have a significant and positive correlation with learner's academic performance and achievement. According to Winne and Marx (1989), motivation is both a condition for, and a result of, effective instruction. Ortega (2009) also delivered an in-depth analysis of the interdependence between technology and TBLT both in theory and practice. In her view, technology and TBLT place their theoretical emphasis on "doing language" and experiential learning and share similar pedagogical features and functions in terms of boosting motivation and authenticity in language learning, providing student with choices, offering feedback, and enhancing community of learning.

1.1. Statement of the problem
Some teachers, the author among them, believe that one reason for families' dissatisfaction with English language learning and teaching is related to the existence of the traditional way of English language teaching. This traditional way of teaching includes instructional practices that are collectively referred to as 'prompting' because they involve the prompting and 'drilling' of students. These practices are also described colloquially as 'drilling and killing,' 'memorizing,' 'answering and not questioning,' 'checking and not correcting,' 'individual learning' (as opposed to group work learning), 'teachers are the sources and producers of knowledge,' 'students are the recipients,' and 'leaving no place for much thinking and understanding.' In contrast to this behaviorist approach, this study speculates that a constructivist instructional practice such as TBLT in conjunction with CALL might foster students" motivation in L2 reading. Gonzalez-Lloret (2017) argued that, among all the existing methodologies for language teaching, TBLT is ideal for informing and fully realizing the potential of technological innovations for language learning. This issue has to date been little investigated within the CALL-mediated TBLT context, especially in Iran. Therefore, it seems logical to hypothesize that

students' motivation plays an important role in successful implementation of CALL-mediated TBLT and that, if used effectively, this new teaching and learning context can increase students' motivation.

Thus, this study introduces CALL-mediated TBLT as a transitional step for teaching practices in Iran–moving away from skills-based (behaviorist) teaching and learning and toward practices that are grounded in constructivism.

1.2. The significance of the study

The findings are intended to be useful for those interested in learning how the theoretical principles of TBLT can actually be translated into practical classroom activities to develop CALL-mediated materials for a TBLT curriculum. Moreover, both pre-service and in-service instructors of foreign and second languages may find sources of inspiration to consider and developers of language curricula and materials may benefit from seeing how theoretical concepts can become real tasks in the classroom.

2. Literature review

2.1. Task-based language teaching (TBLT)

The origin of task-based approaches lies outside language learning and in more general theories of education which underline the importance of experiential or "hands-on" learning (Thomas, 2013). The American philosopher of education, John Dewey, is typically identified as an influential early advocate of task-based learning (TBL) and there are strong interrelationships between his notion of problem-based learning, the value of experience, enhancing learner motivation and task-based approaches. Dewey's (1938; as cited in Thomas, 2013) philosophy of education was collaborative in outlook, emphasizing that meaning emerges from collective experience and the willingness of people to work with each other. It also attempted to deconstruct prevailing binary thinking that marginalized the importance of experience or practical knowledge in relation to theoretical knowledge. Engaging learners rather than wasting their time on impractical tasks that are likely to have no bearing on their lives or work was a key organizing principle for Dewey, such that TBL is expected to draw on the rich experience learners already have. Task-based approaches are therefore not new and there is thus a strong line of influence running from Dewey to Bruner (1960) through to constructivist thought (Vygotsky, 1978) and contemporary TBL.

In language learning, TBLT owes a great deal to early research by Prabhu (1987; as cited in Thomas 2013) who put forward the value of problem-solving activities and the task as a central principle of syllabus design in opposition to the then prevalent form of linguistic syllabus, which was organized according to the linear grasp of linguistic forms. Prabhu's work in India has clear lines of influence from interactionist theories in SLA theory to ecological and sociocultural approaches which also place an emphasis on learner interaction, the importance of the learning environment for supporting and scaffolding learner development and the genuine implications of the process (Thomas, 2013).

TBLT, then, was developed by stressing the interaction, cognitive processing, and authentic language use through negotiation of meaning (Bygate, Skehan, & Swain, 2001; Nunan, 2004). Long (1990) focused on meaning negotiation in relation to problem-solving tasks. Similarly, Pica, Kanagy, and Falodun (1993) argued that negotiation of meaning is related to increased levels of interactive tasks. Research on interactive tasks emphasized how they generated greater accuracy and complexity in terms of output than non-interactive tasks, which tended to focus more on fluency (Skehan & Foster, 1997). Additionally, research on task planning suggests that it improves performance in accuracy and fluency (Ortega, 1999). Other major areas of research include the use of task repetition to increase syntactic quality and use of the TL. As Willis (1996) argued, research on task-based approaches, stresses the importance of exposure to authentic input, and sustained

cogent ·· education

meaningful use of the TL for enhancing output and learner motivation. In this respect, Klapper's (2003) definition of task has become representative of this approach:

> Tasks are meaning-based activities closely related to learners' real-world communicative needs and with some genuine relationship, in which learners have to achieve a real outcome (solve a problem, reach an agreement, play a game, complete a puzzle, etc.) and in which effective execution of the tasks is granted priority. (p. 35)

To this definition, we can also add the dimension of learner-learner collaboration and what Meskill (1999) calls socio-collaborative learning tasks. Based on this wider definition it is also worthwhile to highlight Lamy's (2007) definition, one which strikes a cord with Ortega's (2009) interest in the collective problem-solving aspects associated with Web-based gaming and immersive environments. According to this broader working definition, which is highly cognizant of the capability of technology to produce socio-collaborative interaction, Lai and Li (2011) suggest that tasks should be seen as "holistic activities in which learners make use of their language and (cross) cultural and communicative resources to achieve some nonlinguistic outcome through stretching their linguistic, (cross-) cultural, internet-based communication, and digital literacy skills" (p. 502).

If language education centered around tasks it is expected to give learners an experiential educative process so that they use L2 for meaning making and accordingly this negotiative language use will stir up and promote the learners' language learning (Samuda & Bygate, 2008). TBLT is still a relatively recent innovation–one whose implementation requires expertise on the part of course designers and classroom teachers, and a substantial investment of time and effort if it is to be successful (Long, 2016).

By applying meta-analytic techniques for 50 recent studies, Bryfonski and McKay (2017) concluded that TBLT not only have short time benefits in a variety of learning outcomes but it has also promising and significant effects in the long run. Chen (2018) reports on an EFL reading program that integrated extensive reading with task-based learning to promote L2 learners' language development, increase their motivation in reading, and help them build reading habits. The results revealed that the combination of interesting reading materials and meaningful tasks created positive experiences in language learning. According to Chen, comprehensible input from extensive reading and productive output in the follow-up tasks proved to be effective in facilitating language development and motivating L2 learners to read more books and gradually develop reading habits. H. B. Nguyen and Nguyen (2018) reports on Vietnamese students' perceptions of task-based vocabulary instruction within a high school context. The findings indicate that students in the experimental group outperformed those in the control group, indicating that task-based vocabulary instruction was useful to tenth graders using the new textbook. The findings also reveal participants' perceived need for the inclusion of task-based vocabulary in their learning process. In an empirical study, Kafipour, Mahmoudi, and Khojasteh (2018) investigated the effects of employing task-based writing instruction on Iranian EFL learners' writing competence. The results showed significant improvements in the writing ability of the Iranian EFL learners who practiced writing skills using TBLT techniques. According to the authors, using task-based writing techniques improved the Iranian EFL learners' ability significantly in terms of different aspects of the writing competence, including sentence mechanics, language use, vocabulary, content, and organization.

2.2. Computer-assisted language learning (CALL)

Computer-assisted language learning (CALL) means "learners learning language in any context with, through, and around computer technologies" (Egbert, 2005, p. 4). CALL comprises a wide range of information and communications technology applications and approaches to teaching and learning foreign languages, from the traditional drill-and-practice curriculums that described CALL in the 1960 and 1970s to more recent manifestations of CALL, e.g., as used in a virtual learning environment and web-based distance learning. It also embraces the

application of corpora and concordancers, interactive whiteboards (Schmid, 2009), CMC (Lamy & Hampel, 2007), language learning in virtual worlds, and mobile-assisted language learning (Shield & Kukulska-Hulme, 2008).

While the core media used in language instruction—text, audio, video, images—have remained constant over time, their technological formats and their role in language learning have changed strikingly (Otto, 2017). She further argues that language learning technologies and CALL have evolved from delivery via localized technological resources to any-time, any-place provision through networked digital tools. Furthermore, "technology has advanced from its ancillary role in the curriculum to become a core source of content and a conduit for authentic language learning experiences" (p. 21). According to Otto, it is unquestionable that technology has, in fact, become more integrated into language learning and is well on its way to becoming a normal part of everyday practice.

2.3. CALL-mediated TBLT

In computer applications in SLA, Chapelle (2001, 2003) explores the interface between CALL, TBLT, and SLA. According to Chapelle, anyone dealing with second language teaching and learning in the twenty-first century needs to grasp the nature of the unique CALL-mediated tasks learners can engage in for language acquisition and how such tasks can be used for evaluation. To meet the challenge, the study of the features of computer-based tasks that foster learning should be a concern for teachers as well as for SLA researchers who wish to contribute to knowledge about instructed SLA. Leading CALL scholars such as Levy and Stockwell (2006) also contend that research on language learning tasks has been a "pivotal component in [CALL] design" (p. 14) since the mid-1980s.

Developments over the last five years in Web 2.0 applications suggest a renewed interest in a task-based approach using technology (Mak & Coniam, 2008; Thomas & Reinders, 2010). According to O'Reilly (2005), Web 2.0 is related to a new attitude toward the use of internet technology, stressing the development of a truly networked environment in which new applications are automatically updated online and users actively contribute to content in what he calls an "architecture of participation". Whereas the first generation of the Web was popularly conceived of as a one-dimensional "read only" experience, the applications associated with Web 2.0 enable users to interact with the "read-write" Web in which they can actively contribute and interact (Warschauer & Grimes, 2007). Web 2.0 comprises a variety of new technologies with a powerful social outlook with one of the aims being to promote community building in authentic online environments (Mak & Coniam, 2008).

According to Thomas (2013), technology can offer opportunities to transcend the restrictions of the traditional classroom context. Online materials and applications can positively enhance the types, authenticity, and range of tasks that learners engage in. Moreover, through Web 2.0 technologies likes blogs and wikis and other collaborative tools, learners can emphasize their creative skills, author and produce outputs for an external audience and engage in activities which highlight their active rather than passive participation (Lankshear & Knobel, 2011). Technology can raise learner agency in language learning contexts, corroborating constructivist goals, and marginalizing the notion that learners are merely empty vessels to be filled with knowledge poured into them by more knowledgeable instructors.

With both TBLT and CALL-mediated language teaching being gradually adopted by language educators and teachers, we would visualize technology and TBLT becoming part and parcel of each other due to their elective theoretical and practical affinities (Ortega, 2009). This rapidly growing field has sent us a positive message on the contribution that CALL can make to improve learning in TBLT and the contribution TBLT has made to boost CALL-mediated language learning.

2.4. Motivation

The word motivation derives from the Latin verb *movere* meaning "to move". What moves a person to make certain choices, to engage in action, to expend effort and persist in action—such basic questions lie at the heart of motivation theory and research. Considerably, however, these deceptively simple questions have generated a great deal of theory and research over the decades, aroused substantial discussion and disagreement among scholars, brought about numerous theoretical models extending to different variables and different views of the construct of motivation, and produced few clear straightforward answers (Dörnyei, 2011).

Most researchers agree that motivation requires a set of beliefs, values, and expectations and a series of important behaviors: engagement, persistence, strategic problem-solving, and requests for help (Grabe, 2009). "Beliefs, values, and expectations usually center on some combination of self-regulation, self-efficacy, interest, goal-setting, and attributions of (or reasons for) success and failure" (p. 176). Furthermore, these values, beliefs, and expectations are influenced by a range of external social and contextual factors: parents, peers, sociocultural expectations, classrooms, teachers, and instructional tasks. As Grabe argued, motivated persons are optimistic, willing to work on difficult and challenging tasks, and aware of their potentials; they want choice in controlling their environment and their learning, expect success, build connections with others, experience pleasure from their work, and take pride in their achievements. In short, positive motivation is what activates effective learning behavior (Guthrie & Wigfield, 2000).

The study of motivation has been a dominant area for research in psychology and education for many years (Dörnyei, 2011). This interest may mirror the common perception of classroom teachers who tend to regard student motivation as the most important factor in educational success in general (Dörnyei, 2001). According to Ushida (2005), the literature on L2 motivation has two main lines. One line consists of a set of studies based on Gardner's socio-educational model in which the role of integrative motivation—comprised of integrativeness, attitudes toward the learning situation, and motivation—was experimentally studied as a determinant of L2 attainment. The effect of L2 learning motivation has been highly researched by social psychologists in Canada, where French and English are the two official languages. Gardner (1985; as cited in Ushida, 2005) speculated that L2 learners with positive attitudes toward the target culture and people would learn the TL more successfully than those who do not have such positive attitudes. In their earlier research, Gardner, and Lambert (1959) found that motivation and aptitude were the two determinants most highly associated with learners' L2 attainment. Gardner and MacIntyre (1993; as cited in Ushida, 2005) drew together the findings from many studies over several decades and formulated Gardner's "socioeducational model of SLA"

Motivation in this model is defined as the degree to which the individual works or attempts to learn the language because of a motive to learn the language and the enjoyment experienced in this activity (Ushida, 2005). A "motivated learner" is, therefore, defined as one who is: (a) eager to learn the language, (b) willing to expend effort on the learning activity, and (c) willing to sustain the learning activity (Gardner, 1985, p. 10).

The other line of research calls for the recruitment of a new "agenda" (Crookes & Schmidt, 1991; as cited in Ushida, 2005) for L2 motivation research, proposing a number of alternative models with an attempt to gain a more thorough understanding of L2 learning motivation within mainstream education. While the former studies investigate causal relationships among possible individual-difference variables with various L2 achievement measures, the latter attempts to pinpoint possible variables that could affect learners' motivations within the immediate L2 learning situation (Ushida, 2005).

2.5. Motivation & CALL-mediated TBLT

Among the various hypothesized advantages of CALL, its positive effects on students' motivation have been most frequently documented. Chun (1994), Kern (1995) and Warschauer (1996a), for example, have examined the effect of computer-assisted classroom discussion (CACD), as

compared to face-to-face class discussion on university-level L2 students' opportunities to take part in discussion, their motivation and anxiety, turn-taking patterns, and so on. According to Ushida (2005), these studies found that CACD motivates student-initiated discussion more than teacher-initiated discussion and increased the number of opportunities for students to generate more output regardless of their individual personality differences.

Likewise, Warschauer, 1996b; as cited in (Ushida, 2005) identified empowerment as one of the factors that motivated students in technology-integrated L2 writing classes. He speculated that students' beliefs of the possible benefits of computer-mediated communication (CMC), such as a sense of achievement and accomplishment of learning opportunities, enhanced their motivation. Beauvois (1994) and Beauvois and Eledge (1996) reported remarkably positive attitudes by inter-mediate French learners who perceived linguistic, affective, and interpersonal benefits from their experiences using computer-assisted classroom discussion.

In a project reported by Jogan, Heredia, and Aguilera (2001; as cited in Ushida, 2005), college students of advanced Spanish in the US and college students of English in Chile exchanged email in both languages to learn about the target culture in the TL. These personalized student-driven dialogues appeared to motivate L2 learners to write about and learn about each other's cultures and, more importantly, to enjoy the interaction/communication. The use of email may also have reduced students' affective filters, enabling them to write what they wanted to in less restricted ways than in traditional L2 writing assignments.

According to Ushida (2005), some L2 teachers have strived to use various CALL activities to build "technology-enhanced language learning" (TELL) environments. Adair-Hauk, Willingham-McLain, and Youngs (2000) indicated the value of a TELL learning environment for reducing students' anxiety level so that students could enjoy learning in a more comfortable atmosphere without the pressure of a classroom and peers. The authors believed that the findings revealed that the TELL components motivated the students in the experimental group to learn intensely on their own and fostered their collaboration outside the classroom.

According to Stepp-Greany (2002), web-learning offers well-selected activities and interactive learning. He also reports that technologically equipped classrooms raise students' motivation due to the interactive nature of the activities. Ellinger, Sandler, Chayen, Goldfrad, and Yarosky (2001) conducted a study on the use of internet in language classes. They claim that internet, as an essential tool encourages students, increases autonomous learning potential, and brings willingness and enthusiasm into the classroom. Anderson and Speck (2001) pointed out that using technology in the classroom not only motivates the learners but also engages them in listening, speaking, reading, and writing. According to Wang (2004), when language learners have valuable and real communication factors, they can expand their language skills in classroom. He contends that using computers and technology-based equipment provides the students with the sense of encouragement and freedom. With the employment of technology, students can be motivated and committed in the language learning process. To show the importance of technology as an excellent trigger of motivation for EFL students, Zengin (2007) elaborates on the importance of the technology-based classrooms because students are more motivated and enthusiastic in multimedia and technology-based lessons. Mayora (2006) explains the advantages of multimedia technology in EFL programs and contends that using multimedia promotes students' interest in the classroom. Harmer (2007) suggests that student can become active and dynamic learners by means of online education and also points out the importance of computer-based technology-based classrooms because they offer learners interesting activities which attract and motivate them.

Several studies have attested to pedagogical benefits of the technology as it can improve students' motivation (e.g., Hsieh, Wu, & Marek, 2017; Strayer, 2012). According to Francis (2017), to build up an effective 21st century classroom that satisfies the needs of the students, a modern teacher must factor a student's motivation to learn and the effects technology has on inclusionary

education. To address this rising need, a technology implementation was devised. Research was completed at an urban charter school on a population of 348 at the time of technology intervention through data analysis. Student surveys were administered to measure student perception and motivation, student individualized education plans were reviewed, and classroom observations were made. The results showed that students feel motivated through the specific use of technology in the classroom, whether it be for pedagogical purposes or for accommodations.

In another study, Hazaea and Alzubi (2016) investigated the effectiveness of mobile phones in improving Saudi EFL college students' reading comprehension. The result revealed that mobile-supported cooperative reading activity improved the EFL learners' English reading comprehension and increased their motivation for English learning. Winet (2016) also showed how to use mobile instant messaging in the ESL writing class. He argued that it can increase students' motivation, output, and the quality of their writing.

In a study, Aleissa (2017) highlighted the importance of students' motivation and positive attitude in learning a foreign language, and the effectiveness of CALL on Saudi female adults in learning English as a foreign language at the college level. The goal of this study was to inquire about the effects of technology on Saudi female students who lack the motivation to learn English. The results demonstrated that technology can serve as a vehicle to motivate students, improve their learning skills and to introduce them to authentic experiences in the target culture both within and outside the classroom.

In his study, Vafaeepour (2017) intended to compare learners' attitudes, motivation, and engagement while working with two types of instructional materials, namely textbook and authentic Internet-sourced materials. The results seem to indicate that compared to textbooks, Internet-sourced materials can better prepare learners for coping with authentic materials.

Nejati, Jahangiri, and Salehi (2018) examined the effect of CALL on the vocabulary learning of Iranian EFL learners, in which 40 pre-intermediate and intermediate students enrolled at Iran Language Institute, Urmia, Iran were selected as participants. The students in the experimental groups were exposed to the treatments for eight sessions, which included teaching of word lists selected from the students' books using computers. These words were taught to the experimental groups using 'Vocaboly', while the control groups were taught using the traditional method of vocabulary teaching. The comparison of the mean scores using a t-test indicated that the experimental groups outperformed the control groups on post-tests. The authors concluded that CALL increases motivation and effectiveness of learning.

2.6. Purpose of the study

Applications of digital technology can exert a considerable motivational impact. The current study pursues this agenda by presenting a new approach to motivating L2 learners through investigating the intersection of CALL and TBLT. The underlying assumption is that a sustained level of motivation is fundamental to the successful mastery of a second language (Dörnyei & Ushioda, 2011), and the notion of CALL-mediated TBLT has been proposed as a motivational factor that can help to fuel the language learning process in an ongoing manner. Of great importance in this study is the idea that, as Norris (2009) puts it, TBLT "rejects the notion that knowledge can be learned independently of its application and embraces instead the value of learning by doing or experiential learning" (p. 578). Moreover, well-designed experiential activities that involve the use of language are thought to drive language learning, as "it is by engaging learners in doing valued activities that relevant declarative and procedural knowledge is developed" (p. 579). This study, therefore, fills a clear gap.

To achieve the objective, the following research question was formulated for the present study: How does CALL-mediated TBLT impact students' motivation in L2 reading?

3. Method

3.1. The design of the study

The research was conducted using the nonequivalent groups pretest-posttest design, which is the most commonly used quasi-experimental research design (Best & Kahn, 2006). This design is structurally quite similar to the true experimental design, but it does not employ random sampling. In nonequivalent control group design, the dependent variable is measured both before and after the treatment. The dependent variable is the students' motivation toward learning English and the main independent variable is the method of teaching English using CALL-mediated TBLT.

3.2. Participants

In this study, the population were non-English major EFL undergraduate university students enrolled at Islamic Azad University, Izeh Branch, during the academic year of 2017–2018. Through non-probability and convenience sampling, two intact freshmen classes were chosen and randomly assigned as the experimental ($N = 45$) and the control groups ($N = 38$). The subjects (27 male and 56 female) were of the same educational background, ranged in age from 21 to 28 and had been studying English for at least six years at school. Most of the subjects were locals but some of them were from other cities who were living in dormitory. All participants were native speakers of Persian with minimum opportunity to communicate with native speakers of English.

3.3. Instruments

Two main instruments were used in the study:

3.3.1. Oxford Placement Test (OPT)

At the beginning of research, subjects were required to take Oxford Placement Test (OPT; Allan, 2004) to make sure that they were homogeneous with respect to their proficiency in language skills as a whole. As a proficiency test, OPT is expected to be norm-referenced and is intended to "measure global language abilities" (Brown, 2005, p. 2). The OPT (Allan, 2004) edition entails 200 questions: 100 listening and 100 English grammar questions. Indeed, the first section is a test of reading and listening skills. OPT took 1 hour and first part was listening which lasted in about 10 minutes. Students then had approximately 50 minutes for the grammar part. In both listening and grammar parts, students should simply choose one correct box out of two boxes. According to Allan (2004), the OPT provides reliable and efficient means of placing students at the start of a course for teachers. To check the reliability of the test in Iranian context, the obtained reliability of the test, using *KR*–21 measure of internal consistency was 0.78.

3.3.2. Attitude/Motivation Test Battery (AMTB)

The Attitude/Motivation Test Battery (AMTB) was developed by Gardner (1985) to assess various individual difference variables based on the socio-educational model. The AMTB is made up of 104 items, and its reliability and validity have been supported (Gardner & Gliksman, 1982; Gardner & MacIntyre, 1993). Table 1 presents a listing of the constructs assessed in the AMTB, the number of items typically used in each construct, and questionnaire item number.

To make sure that the students understand the meaning of every single item, the AMTB was translated into Persian language. However, as the major focus in this study was on the motivation of the students, the results of some items of AMTB were not analyzed and reported here (including, attitudes toward learning English, attitudes toward English-speaking people, English class anxiety, English teacher evaluation, English course evaluation, and English use anxiety). Accordingly, questionnaire items for only six domains were included in the statistical procedure. The AMTB was administered twice as a pre- and posttest in order to identify differences over time.

Students rated themselves on a 5-point Likert-type scale, from 1 (strong disagreement) to 5 (strong agreement). For scoring each scale, all responses were added up to a sum score. Finally, a student's score was computed by dividing the sum score for each scale by the total number of

cogent ·· education

Table 1. AMTB scale		
AMTB constructs	**No. of items**	**Questionnaire item No.**
• Interest in Foreign Languages	10	1, 12, 21, 32, 42, 55, 65, 76, 85, 95
• Motivational Intensity	10	3, 13, 23, 33, 44, 56, 67, 77, 87, 96
• Parental Encouragement	8	2, 22, 43, 48, 57, 66, 86, 103
• English Class Anxiety	10	4, 16, 24, 36, 45, 60, 68, 80, 88, 98
• English Teacher Evaluation	10	5, 14, 25, 34, 46, 58, 69, 78, 89, 97
• Attitudes toward Learning English	10	6, 18, 26, 38, 47, 62, 70, 82, 90, 100
• Attitudes toward English-speaking	8	7, 27, 40, 53, 49, 71, 91, 104
• Integrative Orientation	4	8, 28, 50, 72
• Desire to Learn English	10	9, 17, 29, 37, 51, 61, 73, 81, 92, 99
• English Course Evaluation	10	10, 20, 30, 41, 52, 64, 74, 84, 93, 102
• English Use Anxiety	10	11, 19, 31, 39, 54, 63, 75, 83, 94, 101
• Instrumental Orientation	4	15, 35, 59, 79

items that make up the scale. The Cronbach internal consistency coefficients of the scale were 0.81 in the motivation pretest, and 0.83 in the motivation posttest.

3.4. Data collection procedures

3.4.1. Pilot study
Before the main study, a pilot study was conducted to check the internal consistency and reliability of the AMTB instrument. Therefore, it was given to 29 non-English major EFL undergraduate university students (11 = male, 18 = female) who were selected through simple random sampling so as to represent the entire sample of subjects chosen for the main study. The reliability of the test through the *KR*-21 indicator of reliability was calculated as 0.79, indicating that the test enjoyed a reliable measure of motivation.

3.4.2. Main study
The study consisted of three main phases: (1) pretesting (2) instruction in CALL-mediated TBLT and (3) posttesting. After administering the OPT, both groups of students were given a test of AMTB as a pretest in order to assess their current motivation towards learning English?

At the second stage, the control group received no CALL-mediated TBLT instruction but received only a task-based instruction on reading without the mediation of CALL. Instead, the experimental group took part in a weekly study session in the university audio-visual center over a period of twelve-week semester. During the treatment sessions, the students in the experimental group received instruction in a CALL-mediated TBLT format, following the modified framework suggested by, e.g., Bygate (1994), Skehan (2011), Willis (1996, 2004), Willis and Willis (2007), Lee (2000) and Ellis (2003).

3.4.2.1. Pre-reading task stage. This was the first and primary stage of the teaching procedure, the aim of which was to activate the background knowledge of the readers, arouse their interest to the text, develop expectations about the topic, generate vocabulary and related language, and set up a purpose for them to read on. It was intended to provide readers with opportunities to activate their own existing schematic knowledge and to use their imagination to make predictions. This

stage served as the preparation stage. The tasks given at this stage usually enabled the learners to engage in active purposeful interaction which stired up their desire to read the text. Students were motivated and prepared themselves better for the reading task and understood more about the passage when they got into a detailed study of it.

3.4.2.2. During-reading task stage. At this stage, the teacher designed and assigned some tasks to make students read the text efficiently and had a profound understanding. Tasks were designed to train students' reading skills such as scanning, skimming, reading for thorough comprehension and critical reading. As for the reading activities, there were many forms that were recommended in class: read for specific information; read for gist or general ideas of the text; deduce the meanings of certain words from a given context; infer the writer's intended message from a given context; recognize author's purpose and attitude.

3.4.2.3. Post-reading task stage. Post-reading activities were principally designed for learners to practice communicative output. The tasks at this stage were designed to offer students communicative opportunities to use the language points to communicate and extend the content of the text to the real-life situation. There were many forms available for the activities of the stage, such as text rewriting, role-playing, suggestion making, discussion, report. These activities involved speaking, listening and writing. At this stage, group or pair work made the reading more communicative. The students were at the center of the activities. They were active readers and participants in the reading tasks. The teacher was supposed to be an organizer and a guide.

Each weekly session involved 60 minutes of using TBLT activities integrated with multimedia softwares and online resources, followed by 15 minutes of debriefings in groups of three or four at the end of each session. The instructor briefly introduced different resources the participants could choose from (e.g., online magazines/newspaper, news podcasts/vodcasts, online glosses/dictionaries, multimedia softwares, synchronous/asynchronous electronic communication). They encouraged the participants to try different functions (e.g., recording, role-play, repetition), and provided them with assistance as necessary to solve technical problems, such as installing software. The participants chose whatever they liked to work on in each session, and how they wanted to work. The Participants then shared their reflections at the debriefing in either English or Persian. They also had to submit weekly learning diaries by e-mail or social networks (e.g., Telegram and WhatsApp applications), with reflections on various aspects of their learning such as what content they learned, how they learned it, what particular software functions they used, problems or insights, self-evaluation of their progress or changes that they noticed compared with previous sessions, important events in the learning process, and inner thoughts.

Finally, to compare the effect of the CALL-mediated TBLT environment on students' motivation before and after the treatment, the same AMTB was given to both groups.

3.5. Data analyses
The Statistical Package for the Social Sciences (SPSS) version 24 was employed for the statistical analysis of the data and the significance level was set at $p < .05$. The data were analyzed through descriptive statistics to determine the mean scores and standard deviations. Moreover, inferential statistics such as independent-sample t-test and a univariate analysis of covariance (ANCOVA) were used. The independent-samples t-test was run to compare the scores for experimental and control group before the intervention and to provide a baseline for the students' current level of motivation so that this study could examine the effect of treatment, relative to that initial baseline. For scoring the OPT, one point was assigned to each correct answer. The points for all items were then added up, and an ultimate score was calculated for every participant. To compare the scores for experimental and control group at the beginning of the study, an independent-samples t-test was conducted. Scores for the AMTB were also computed by taking the mean of all items and then calculating an ultimate score for every participant. To see if the motivation of the students in the experimental group was significantly different from that of the control group, a univariate analysis of covariance (ANCOVA) was also employed.

4. Results

4.1. Results for OPT

Oxford Placement Test (OPT) was employed to see if the students in two intact classes chosen as samples of the study belonged to the same population and could act as the participants of this study. Item analysis measures showed that all items were functioning satisfactorily. The reliability of the test estimated through Cronbach's Alpha turned out to be .78. Furthermore, an independent-samples *t*-test was conducted to compare the scores for experimental and control group. Assuming that the variances of the two groups are equal, there was no significant difference in scores between the proficiency abilities for the experimental (*M* = 119.6444, *SD* = 13.75542) and control group (*M* = 119.5789, *SD* = 13.66467; *t* (81) = .022, *p* = .983, two-tailed) at the beginning of the study. As shown in Table 2, the magnitude of the difference in the means (mean difference = .06550, 95% *CI*: −5.94612 to 6.07711) was very small (eta squared = 0.0048). It means that the students were at the same level of proficiency abilities and the researcher could run the research which could lead to the comparison of the reading performance of the two groups.

4.2. Tests of normality

One of the requirements of ANCOVA is the normality of the score distribution. Therefore, it was necessary to conduct tests of normality. Based on the results (see Table 3) the normality assumption does establish for AMTB in the present study.

4.3. Results for research question

Prior to the treatment and in order to make sure that no significant difference in terms of motivation existed between the experimental and control groups, the AMTB pretest was administered to both groups. After checking its assumptions, an independent-samples t-test was conducted and the results revealed no significant differences in scores for the experimental (*M* = 3.4178, *SD* = .27682, *SDM* = .04127) and control group (*M* = 3.4113, *SD* = .27094, *SDM* = .04395; *t* (81) .107, *p* = .915, two-tailed). As displayed in Table 4, the magnitude of the difference in the means (mean difference = .00646, 95% *CI*: −.11371 to .12664) was very small (eta squared = 0.00177). It means that the two groups rated themselves in a similar manner and accordingly the researcher could proceed with the research process.

After implementing the thirteen-session training program, all the participants in the two groups were given the AMTB posttest, the same questionnaire which had been administered as the pretest before starting the training. The descriptive statistics showed that students in the experimental group obtained much higher mean scores on the AMTB posttest (*M* =5.1084, *SD* = .56266) than the control group (*M* = 3.4211, *SD* = .33033).

In order to see whether the treatment given to the experimental group had statistically caused any significant change in this group and to see if the motivation of the students was significantly different from that of the control group, a univariate analysis of covariance (ANCOVA) was employed while controlling for pre-intervention scores as the covariate. Preliminary checks were made to ensure that there was no violation of the assumptions of normality, linearity, homogeneity of variances, homogeneity of regression slopes, and reliable measurement of the covariate. As shown in Table 5, a significant effect was found for CALL-mediated TBLT (*F* = 267.932, *p* = .000, partial eta squared = .770), suggesting CALL-mediated TBLT had a positive effect on the motivation of the students in the experimental group on the posttest in contrast to the students in the control group.

5. Discussion

The findings indicate that CALL-mediated TBLT in English language instruction enhanced significantly students' motivation for L2 reading. Overall, the findings appear to support the literature outlined above. The findings of this part of research are somehow in line with those found by previous studies such as Ahn (2018), Akobirov (2017), Aleissa (2017), Anderson and Speck (2001), Beauvois (1994), Beauvois and Eledge (1996), Cellat (2008), Chun (1994),

Table 2. t-test of the two groups on the OPT scores

| | Levene's test for equality of variances | | t-Test for equality of means | | | | | | 95% confidence interval of the difference | |
	F	Sig.	t	df	Sig. (two-tailed)	Mean difference	Std. error difference		Lower	Upper
Equal variances assumed	.001	.973	.022	81	.983	.06550	3.02139		−5.94612	6.07711
Equal variances not assumed			.022	78.858	.983	.06550	3.01968		−5.94520	6.07619

Table 3. Tests of normality				
Tests of normality	Experimental/ control groups	Shapiro–Wilk		
		Statistic	df	Sig.
Pre AMTB	Experimental	.970	45	.287
	Control	.953	38	.113
Post AMTB	Experimental	.964	45	.174
	Control	.975	38	.541

Francis (2017), Hazaea and Alzubi (2016), Hsieh et al. (2017), Lee, Nakamura, and Sadler (2018), Luo (2013), Nejati et al. (2018), Nobar and Ahangari (2012), Kern (1995), Strayer (2012), Ushida (2005), Vafaeepour (2017), Warschauer (1996a, 1996b), Winet (2016), Zengin (2007). It is implied that CALL-mediated TBLT and technologically equipped classrooms increase student's motivation for L2 reading because of the interactive nature of the tasks and processes. This facilitative effect might be attributed to the immediate feedback the researcher could gain from the participants and to the subsequent modifications of the input based on the views of the participants. It seems that this process has made the tasks more compatible with the needs and interests of those who received them. According to these studies, CALL engaged the students in a number of interesting and interactive activities meant to enhance motivation for L2 reading. It is also implied that TBLT in conjunction with CALL can promote learner autonomy and agency in language learning contexts, corroborating constructivist goals and marginalizing the notion that learners are merely empty containers to be filled with knowledge poured into them by more knowledgeable instructors.

More specifically, the significant differences between the experimental and control groups may be attributed to several reasons. First, using computer in English language instruction is a novelty. This novelty may have encouraged the students to deal with the computer enthusiastically, which may have been reflected in better achievement. Second, computers operate on programs that are based on individualized learning and account for the level and pace of the individuals. This may boost learning as the learner may feel that s/he is in control of the whole learning process. Third, using computers allows the students to repeat the same piece of information or drill as many times as necessary for them to comprehend. Furthermore, they are able to refer to the learning resources and material any time at their conveniences. Fourth, using technology-based tools in teaching makes the students become less shy of committing errors and mistakes, which motivates them to learn much better and as a result improve their achievements. Fifth, by using computers and technology-based tools students might have felt that they were not being watched or judged so that they felt relaxed about gathering information and seeking help from other students. Finally, computers and the related technological tools have many other positive characteristics such as speed, accuracy, variability of presentation and flexibility of use and control, surpassing other modes and channels of presentation.

Teachers are recommended to be aware of the technological revolution. They should update their knowledge of computer use, noticing that CALL could boost learning in many ways and by various means. It gives room for group work and cooperation, and elevates the level of learning. It also improves the students' achievement by giving room for interaction with the materials to be learned. According to Grabe (2009), most students take a vague view of becoming good, fluent L2 readers. Students know that reading is hard work and they need effective motivational support from teachers and the curriculum itself. Teachers also think that they do not have a major role to play in student motivation for reading. Both L1 and L2 motivation research argue strongly that motivation will be significantly affected by what happens regularly in classrooms. Grabe (2009, p. 192), outlines a wide range of practices that teachers can use to promote motivation:

cogent · education

Table 4. Independent-samples t-test of the two groups on the AMTB pretest

	Levene's test for equality of variances		t-test for equality of means					95% confidence interval of the difference	
	F	Sig.	t	df	Sig.(two-tailed)	Mean difference	Std. error difference	Lower	Upper
Equal variances assumed	.047	.829	.107	81	.915	.00646	.06040	−.11371	.12664
Equal variances not assumed			.107	79.219	.915	.00646	.06029	−.11353	.12646

cogent・education

Table 5. Results of ANCOVA on the AMTB posttest using pre-test as a covariate.						
Source	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected Model	59.153[a]	2	29.577	135.404	.000	.772
Intercept	5.629	1	5.629	25.769	.000	.244
Pretest	.492	1	.492	2.254	.137	.027
Groups	58.525	1	58.525	267.932	.000	.770
Error	17.475	80	.218			
Total	1637.033	83				
Corrected Total	76.628	82				

[a] R Squared = .772 (Adjusted R Squared = .766).

(1) Talk about what interests students and why.

(2) Share personal examples of motivated task engagement.

(3) Have students share their interests.

(4) Create a pleasant classroom environment.

(5) Promote effective goal setting and expected outcomes.

(6) Communicate the importance of schoolwork and tasks.

(7) Make task purposes and performance expectations clear.

(8) Increase students' expectancy of success in particular tasks.

(9) Build students' self-confidence.

(10) Promote the development of group cohesiveness.

(11) Have good lead-ins to all texts and tasks to build initial interest.

(12) Match student skills with challenges.

(13) Make the curriculum relevant to students.

(14) Promote effective learning strategies.

(15) Introduce new books and reading materials to students.

(16) Promote active student participation, so learning is stimulating and enjoyable.

(17) Involve learners in decision-making related to reading tasks and goals.

(18) Give students choices.

(19) Provide support and scaffolding with more difficult texts and tasks.

(20) Build real levels of expertise in topics of readings (e.g., with Concept-Oriented Reading Instruction (CORI), content-based instruction).

(21) Provide motivating feedback on tasks and learning progress.

(22) Create communities of learners who support each other with difficult tasks (e.g., cooperative learning approaches).

(23) Encourage students to read extensively, both in school and at home.

(24) Generate "flow."

According to Grabe (2009), the motivation for reading is essential so that students choose to develop their reading skills and persist and make strong efforts to overcome any limitations. Students only become skilled readers when they read a lot, and motivation for reading is critical for addressing this challenge.

6. Conclusion

The study was designed to investigate the instructional values of integrating CALL into a TBLT module that is designed around a pre-during-post-task cycle. To achieve the objectives, it employs TBLT as an overarching pedagogical framework, with the inclusion of CALL-mediated instruction as a way of providing authentic TL and thus examining how this new L2 learning situation might affect students' motivation. The results showed a significant effect for CALL-mediated TBLT, indicating that CALL-mediated TBLT had a positive effect on L2 reading motivation of the students in the experimental group. The findings are not altogether unexpected. There may even be intuitive support for the findings. For example, the reason why CALL-mediated TBLT turned out to be more effective could be explained partially by the fact that this type of learning is novel, engaging, and, accordingly, motivating to learners. It also accounts for the interactive nature of communication believed to boost learning.

According to Stockwell (2013), technology has had an enormous impact on the teaching and learning environment, but there is still a good deal to consider regarding its effect on motivation. Further discussion of the ties between CALL and motivation would need to consider (1) the ways in which tasks can be both planned and implemented, (2) the motivation leading teachers and institutions to adopt technologies, (3) the motivation for learners to choose to use technology to assist them in learning a language, and (4) the variation in views towards technologies on both regional and individual levels.

To further develop the field, we must put more effort into several emerging directions such as the construction of a comprehensive guiding framework for CALL-mediated TBLT and the exploration of different pedagogical applications and tools thereof (Lai & Li, 2011). We also need to look closely in some directions that are critical to the successful implementation of CALL-enhanced TBLT but are mostly underexplored such as learning needs analysis.

Lastly, for a CALL-mediated TBLT curriculum to be successful, it is necessary to incorporate technology as a target of instruction (Chapelle, 2014; González-Lloret, 2014; as cited in Gonzalez-Lloret, 2017). This adds value to CALL-mediated TBLT since students would be developing their digital, *multimodal, and informational literacies* (Warschauer, 2007) at the same time that they are developing their language competence (Gonzalez-Lloret, 2017). This requires teachers to be knowledgeable in the use of multiple technologies as well as experienced in the development of tasks (Hauck, 2010).

7. Limitations

A methodological limitation in this study was the non-random selection of sample, which has an impact on the external validity (i.e., generalizability) of the findings. In other words, the non-random selection of sample limits the generalization of the findings to only cases similar in nature to those used in the study. The sample in this study drew from infusing technology to language learning classrooms. Randomization is not always appropriate or feasible practically and conceptually in all educational research situations (Wiersma & Jurs, 2009), which is the case for this study. Carefully controlled studies of language learning, in contextually rich and naturalistic environments, are not easy to design or to analyze. The challenges to this type of work are very real, and we do not underestimate the obstacles that researchers face in this area, including limited sample sizes, convenience samples of existing classes, lack of suitable control groups, confounding of treatment conditions due to pre-existing organizational requirements or scheduling, and the need to measure changes in learning or proficiency over very small increments of time—such as a single semester. Clarity on specific technologies or combinations of technologies and learning activities must, thus, arise from an analysis of converging evidence from multiple studies, including meta-analyses of studies when possible.

cogent • education

Author details
Hossein Tavakoli[1]
E-mail: hntavakkoli@gmail.com
ORCID ID: http://orcid.org/0000-0002-7367-7966
Ahmad Reza Lotfi[1]
E-mail: lotfi.ahmadreza@gmail.com
Reza Biria[1]
E-mail: re_biria@gmail.com
[1] Department of English, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran.

Citation information
Cite this article as: Effects of CALL-mediated TBLT on motivation for L2 reading, Hossein Tavakoli, Ahmad Reza Lotfi & Reza Biria, *Cogent Education* (2019), 6: 1580916.

References
Adair-Hauk, B., Willingham-McLain, L., & Youngs, B. E. (2000). Evaluating the integration of technology and second language learning. *CALICO Journal*, 269–305.

Ahn, S. K. (2018). *Korean EFL College Students' Acceptance and Use of Smartphone Applications for English Language Learning* (Doctoral dissertation). Alliant International University.

Akobirov, F. R. (2017). *The influence of technology on language learning and motivation with Uzbek EFL and United States ESL students* (Doctoral dissertation). University of Kansas.

Aleissa, D. (2017). *The Effect of Technology on Saudi Students Learning English as a Foreign/Second Language* (Doctoral dissertation). George Mason University.

Allan, D. (2004). *Oxford Placement Test 2*. Oxford: Oxford University Press.

Anderson, R. S., & Speck, B. W. (2001). *Using technology in K-8 literacy classroom*. Upper Saddle River, NJ: Merrill-Prentice Hall.

Beauvois, M. H. (1994). E-talk: Attitudes and motivation in computer-assisted classroom discussion. *Computer and the Humanities, 28*, 177–190. doi:10.1007/BF01830738

Beauvois, M. H., & Eledge, J. (1996). Personality types and megabytes: Student attitudes toward computer mediated communication (CMC) in the language classroom. *CALICO Journal, 13*(2/3), 27–46.

Benson, S. D. (2016). Task-based language teaching: An empirical study of task transfer. *Language Teaching Research, 20*(3), 341–365. doi:10.1177/1362168815569829

Best, J. W., & Kahn, J. (2006). *Research in Education*. New Delhi: Prentice Hall of India Pvt. Ltd.

Brandl, K. (2002). Integrating Internet-based reading materials into the foreign language curriculum: From teacher- to student-centered approaches. *Language Learning & Technology, 6*(3), 87–107. Retrieved from http://llt.msu.edu/vol6num3/brandl/default.html

Brown, J. D. (2005). *Testing in language programs: a comprehensive guide to english language assessment*. McGraw-Hill College.

Bruner, J. S. (1960). *The process of education*. Cambridge: Harvard University Press.

Bryfonski, L., & McKay, T. D. (2017). TBLT implementation and evaluation: A meta-analysis. *Language Teaching Research, 18*, 304–314.

Bygate, M. (1994). Adjusting the focus: Teacher roles in task-based learning of grammar. In M. Bygate, A. Tonkyn, & E. Williams (Eds.), *Grammar and the language teacher* (pp. 237–259). Hemel Hempstead: Prentice Hall International.

Bygate, M., Skehan, P., & Swain, M. (2001). *Researching pedagogic tasks: Second language learning, teaching and testing*. Harlow: Longman.

Cellat, S. (2008). *Computer assisted vocabulary learning: A study with Turkish 4th grade EFL learners* (Unpublished Master Thesis). Anadolu University, Eskisehir.

Chapelle, C. (2001). *Computer applications in second language acquisition: Foundations for teaching, testing, and research*. Cambridge: Cambridge University Press.

Chapelle, C. (2001). *Computer applications in second language acquisition: Foundations for teaching, testing, and research*. Cambridge: Cambridge University Press.

Chapelle, C. (2003). English language learning and technology: Lectures on applied linguistics in the age of information and communication technology. Amsterdam: John Benjamins Publishing.

Chapelle, C. (2003). *English language learning and technology: Lectures on applied linguistics in the age of information and communication technology*. Amsterdam: John Benjamins Publishing.

Chapelle, C. (2014). Afterword: Technology-mediated TBLT and the evolving role of the innovator. In M. Gonzalez-Lloret & L. Ortega (Eds.), *Technology-mediated TBLT: Researching technology and tasks* (pp. 323–334). Philadelphia, PA: John Benjamins.

Chen, I. C. (2018). Incorporating task-based learning in an extensive reading programme. *ELT Journal, 72*(4), 405–414. doi:10.1093/elt/ccy008

Chun, D. (1994). Using computer networking to facilitate the acquisition of interactive competence. *System, 22*, 17–31. doi:10.1016/0346-251X(94)90037-X

Crookes, G., & Schmidt, R. (1991). Motivation: Reopening the research agenda. *Language Learning, 41*(4), 469–512. doi:10.1111/lang.1991.41.issue-4

Desmarais, L. (2002). *Monitoring distance training*. Paper presented at CALICO 2002, Davis, CA. doi: 10.1044/1059-0889(2002/er01)

Dewey, J. (1938). *Experience and education*. New York: Collier Books.

Doherty, K. M. (2002). Students speak out. *Education Week, 11*(35), 19–23.

Dörnyei, Z. (2001). *Motivational strategies in the language classroom*. Cambridge: Cambridge University Press.

Dörnyei, Z. (2011). *Teaching and researching motivation*. Harlow: Pearson Education.

Dörnyei, Z., & Ushioda, E. (2011). *Teaching and researching motivation* (2nd ed.). Harlow: Longman.

Doughty, C, & Long, M. (2003). Optimal psycholinguistic environments for distance foreign language learning. *Language Learning & Technology, 7*, 50–80.

Egbert, J. L. (2005). Conducting research on CALL. In J. L. Egbert & G. M. Petrie (Eds.), *CALL research perspectives* (pp. 3–8). Mahwah, NJ: Lawrence Erlbaum.

Ellinger, B., Sandler, S., Chayen, D., Goldfrad, K., & Yarosky, J. (2001). Weaving the web into an EAP reading program. *English Teaching Forum, 19*, 150–158.

Ellis, R. (2003). *Task-based language learning and teaching*. Oxford: Oxford University Press.

Francis, J. (2017). *The effects of technology on student motivation and engagement in classroom-based learning* (All theses and dissertations). Retrieved from https://dune.une.edu/theses/121/

Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Edward Arnold Publishers.

Gardner, R. C, & Gliksman, L. (1982). On "gardner on affect": A discussion of validity as it relates to the attitude/motivation test battery: A response from gardner 1. *Language Learning, 32*(1), 191–200.

Gardner, R. C., & Lambert, W. E. (1959). Motivational variables in second language acquisition. *Canadian Journal of Psychology, 13*(4), 266–272. doi:10.1037/h0083787

Gardner, R. C., & MacIntyre, P. D. (1993). A student's contribution to second language learning. Part II: Affective variables. *Language Teaching, 26*, 1–11. doi:10.1017/S0261444800000045

Gilbert, S. D. (2001). *How to be a successful online student.* New York: McGraw Hill.

Gonzalez-Lloret, M. (2017). Technology for task-based language teaching. In C. A. Chapelle & S. Sauro (Eds.), *The handbook of technology and second language teaching and learning* (pp. 234–247).Hoboken, NJ: Wiley Blackwell.

González-Lloret, M. (2014). The need for needs analysis in technology-mediated TBLT. In M. González-Lloret & L. Ortega (Eds.), *Technology-mediated TBLT: Researching technology and tasks* (pp. 23–50). Amsterdam: John Benjamins Publishing Company.

Gonzalez-Lloret, M., & Ortega, L. (2014). *Technology-mediated TBLT: Researching technology and tasks.* Philadelphia, PA: John Benjamins.

Grabe, W. (2009). *Reading in a second language: Moving from theory to practice.* New York: Cambridge University Press.

Guthrie, J., & Wigfield, A. (2000). Engagement and motivation in reading. In M. Kamil, P. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 403–422). Mahwah, NJ: L. Erlbaum.

Harmer, J. (2007). *The practice of English language teaching.* Harlow: Pearson Longman.

Hauck, M. (2010). The enactment of task design in telecollaboration 2.0. In M. Thomas & H. Reinders (Eds.), *Task-based language teaching and technology* (pp. 197–217). New York: Continuum.

Hazaea, A. N., & Alzubi, A. A. (2016). The effectiveness of using mobile on EFL learners' reading practices in Najran University. *English Language Teaching, 9*(5), 8–21. doi:10.5539/elt.v9n5p8

Hsieh, J. S. C., Wu, W. C. V., & Marek, M. W. (2017). Using the flipped classroom to enhance EFL learning. *Computer Assisted Language Learning, 30*(1–2), 1–21. doi:10.1080/09588221.2015.1111910

Jogan, M. K., Heredia, A. H., & Aguilera, G. M. (2001). Cross-cultural e-mail: Providing cultural input for the advanced foreign language student. *Foreign Language Annals, 34*(4), 341–346. doi:10.1111/j.1944-9720.2001.tb02066.x

Kafipour, R., Mahmoudi, E., & Khojasteh, L. (2018). The effect of task-based language teaching on analytic writing in EFL classrooms. *Cogent Education, 5*(1), 1–16. doi:10.1080/2331186X.2018.1496627

Kern, R. (1995). Restructuring classroom interaction with networked computers: Effects on quality and characteristics of language production. *Modern Language Journal, 79*, 457–476. doi:10.1111/j.1540-4781.1995.tb05445.x

Klapper, J. (2003). Taking communication to task? A critical review of recent trends in language teaching. *Language Learning Journal, 27*, 33–42. doi:10.1080/09571730385200061

Lai, C., & Li, G. (2011). Technology and task-based language teaching: A critical review. *CALICO Journal, 28*(2), 498–521. doi:10.11139/cj.28.2

Lamy, M. N. (2007). Interactive task design: Metachat and the whole language learner. In P. Del Garcia Mayo (Ed.), *Investigating tasks in formal language learning* (pp. 242–264). Clevedon, UK: Multilingual Matters.

Lamy, M. N., & Hampel, R. (2007). *Online communication in language learning and teaching.* Houndmills: Palgrave Macmillan.

Lankshear, C., & Knobel, M. (2011). *New literacies: Everyday practices and social learning* (3rd ed.). Maidenhead & New York: Open University Press.

Lee, J. (2000). *Tasks and communicating in language classrooms.* Boston: McGraw-Hill.

Lee, J. S., Nakamura, Y., & Sadler, R. (2018). Effects of videoconference-embedded classrooms (VEC) on learners' perceptions toward English as an international language (EIL). *ReCALL, 30*(3), 319–336. doi:10.1017/S095834401700026X

Levy, M., & Stockwell, G. (2006). *CALL dimensions: Options and issues in computer-assisted language learning.* Marwah, NJ: Lawrence Erlbaum.

Lin, H. (2015). A meta-synthesis of empirical research on the effectiveness of computer-mediated communication (CMC) in SLA. *Language Learning and Technology, 19*(2), 85–117.

Littlewood, W. (2004). The task-based approach: Some questions and suggestions. *ELT Journal, 58*, 319–326. doi:10.1093/elt/58.4.319

Long, M. H. (1990). Second language classroom research and teacher education. In C. Brumfit & R. Mitchell (Eds.), *Research in the language classroom. ELT Documents 133* (pp. 161–170). London: Macmillan.

Long, M. H., & Norris, J. M. (2000). Task-based teaching and assessment. In M. Byram (Ed.), *Encyclopedia of language teaching* (pp. 597–603). London: Routledge.

Long, M. H. (2016). In defense of tasks and TBLT: Nonissues and real issues. *Annual Review of Applied Linguistics, 36*(2016), 5–33. doi:10.1017/S0267190515000057

Luo, T. (2013). Web 2.0 for language learning: Benefits and challenges for educators. *International Journal Of Computer-assisted Language Learning and Teaching (Ijcallt), 3*(3), 1–17.

Mak, B., & Coniam, D. (2008). Using wikis to enhance and develop writing skills among secondary school students in Hong Kong. *System, 36*, 437–455. doi:10.1016/j.system.2008.02.004

Mayora, C. A. (2006). Integrating multimedia technology in a high school EFL program. *English Teaching Forum, 44*(3), 14. US Department of State. Bureau of Educational and Cultural Affairs, Office of English Language Programs, SA-5, 2200 C Street NW 4th Floor, Washington, DC 20037.

Meskill, C. (1999). Computers as tools for sociocollaborative language learning. In K. Cameron (Ed.), *CALL: Media, design and applications* (pp. 141–162). The Netherlands: Swets & Zeitlinger.

Murday, K., & Ushida, E. (2002). *Student experiences in the language online project.* Paper presented at CALICO 2002, Davis, CA. doi: 10.1044/1059-0889(2002/er01)

Nejati, E., Jahangiri, A., & Salehi, M. R. (2018). The effect of using computer-assisted language learning (CALL) on Iranian EFL learners' vocabulary learning: An experimental study. *Cypriot Journal of Educational Sciences, 13*(2), 351–362. doi:10.18844/cjes.v13i2

Nguyen, H. B., & Nguyen, A. H. (2018). Task-based vocabulary instruction at a Vietnamese high school: Students' perceptions. *European Journal of English Language Teaching.* Retrieved from https://oapub.org/edu/index.php/ejel/article/view/1359

Nobar, A. G., & Ahangari, S. (2012). The impact of computer assisted language learning on Iranian EFL learners' task-based listening skill and motivation. *Journal of Academic and Applied Studies*, 2(1), 39–61.

Norris, J. (2009). Task-based teaching and testing. In M. Long & C. Doughty (Eds.), *The handbook of language teaching* (pp. 578–594). Malden, MA: Wiley-Blackwell.

Nunan, D. (2004). *Task-based language teaching*. Cambridge: Cambridge University Press.

O'Reilly, T. (2005). *What is Web 2.0: Design patterns and business models for the next generation of software*. Available from: https://www.oreilly.com/pub/a/web2/archive/what-is-web-20.html

Ortega, L. (1999). Planning and focus on form in L2 oral performance. *Studies in Second Language Acquisition*, 21, 109–148. doi:10.1017/S0272263199001047

Ortega, L. (2009, September). *Tasks and technology in language learning: Elective affinities and (dis)encounters*. Plenary delivered at the 3rd international task-based language teaching conference, Lancaster, 13–16.

Otto, S. E. K. (2017). From past to present: A hundred years of technology for L2 learning. In C. A. Chapelle & S. Sauro (Eds.), *The handbook of technology and second language teaching and learning* (pp. 10–25). New York, NY: John Wiley & Sons.

Park, M. (2012). Implementing computer-assisted task-based language teaching in the Korean secondary. In A. Shehadeh & C. A. Coombe (Eds.), *Task-based language teaching in foreign language contexts: Research and implementation* (pp. 215–240). Amsterdam: John Benjamins.

Petersen, K., & Sachs, R. (2015). The language classroom in the age of networked learning. In R. P. Leow, L. Cerezo, & M. Baralt (Eds.), *Technology and L2 learning: A psycholinguistic approach* (pp. 3-22). Berlin, Germany: De Gruyter Mouton.

Pica, T., Kanagy, R., & Falodun, J. (1993). Choosing and using communication tasks for second language instruction. In G. Crookes & S. Gass (Eds.), *Tasks and language learning: Integrating theory and practice* (pp. 9–34). Clevedon: Multilingual Matters.

Prabhu, N. S. (1987). *Second language pedagogy. A perspective*. Oxford: Oxford University Press.

Richards, J. C. (2005). *Communicative language teaching today* (RELC portfolio Series 13). Singapore: SEAMEO Regional Language Center.

Samuda, V., & Bygate, M. (2008). *Tasks in second language learning*. New York: Palgrave Macmillan.

Schmid, E. C. (2009). *Interactive whiteboard technology in the language classroom: Exploring new pedagogical opportunities*. Saarbrücken, Germany: VDM, Verlag Dr. Müller.

Shield, L., & Kukulska-Hulme, A. (Eds.). (2008). *Special issue of ReCALL on mobile assisted language learning*. Cambridge: Cambridge University Press.

Skehan, P. (2011). *Researching tasks: Performance, assessment, and pedagogy*. Shanghai: Shanghai Foreign Language Education Press.

Skehan, P., & Foster, P. (1997). The influence of planning and post-task activities on accuracy and complexity in task-based learning. *Language Teaching Research 1*, (3), 185–211.

Stepp-Greany, J. (2002). Student perceptions on language learning in a technological environment: Implications for the new millennium. *Language Learning and Technology*, 12, 165–180.

Stockwell, G. (2013). Technology and motivation in English-language teaching and learning. In E. Ushioda (Ed.), *International perspectives on motivation: Language learning and professional challenges* (pp. 156-175). London: Palgrave Macmillan.

Strayer, J. F. (2012). How learning in an inverted classroom influences cooperation, innovation and task orientation. *Learning Environments Research*, 15(2), 171–193. doi:10.1007/s10984-012-9108-4

Thomas, M. (2013). Task-based language teaching and CALL. In M. Thomas, H. Reinders, & M. Warschauer (Eds.), *Contemporary computer-assisted language learning* (pp. 341–358). London: Continuum.

Thomas, M., & Reinders, H. (2010). *Task-based language teaching and technology*. New York: Continuum.

Ushida, E. (2005). The role of students' attitudes and motivation in second language learning in online language courses. *CALICO Journal*, 23(1), 49–78. doi:10.1558/cj.v23i1.49-78

Vafaeepour, A. (2017). *Printed Internet-Sourced Materials As Alternative To Reading Textbooks* (Doctoral dissertation). Multimedia University.

Van Den Branden, K. (2006). *Task-based language education: From theory to practice*. Cambridge: Cambridge University Press.

Vygotsky, L. (1978). *Mind in society*. Cambridge: Cambridge University Press.

Wang, Y. (2004). English magazines, motivation, and improved EFL writing skill. *English Teaching Forum*, 42(1), 24–29.

Warschauer, M. (1996a). Comparing face-to-face and electronic discussion in the second language classroom. *CALICO Journal*, 13(2/3), 7–26.

Warschauer, M. (1996b). Motivational aspects of using computers for writing and communication. In M. Warschauer (Ed.), *Telecollaboration in foreign language learning: Proceedings of the Hawai'i symposium* (Technical Report No. 12 pp. 29–46). Honolulu: University of Hawai'i Second Language Teaching and Curriculum Center.

Warschauer, M. (2007). The paradoxical future of digital learning. *Journal Learning Inquiry, 1*(1), 41–49. doi:10.1007/s11519-007-0001-5

Warschauer, M, & Grimes, D. (2007). Audience, authorship, and artifact: The emergent semiotics of web 2.0. *Annual Review Of Applied Linguistics, 27*, 1–23.

Wiersma, W., & Jurs, S. G. (2009). *Research methods in education: An introduction* (9th ed.). New York, NY: Library of Congress.

Willis, D., & Willis, J. (2007). *Doing task-based teaching.* Oxford: Oxford University Press.

Willis, J. (1996). *A framework for task-based teaching.* Harlow, UK: Longman.

Willis, J. (2004). Perspectives on task-based instruction: Understanding our practices, acknowledging different practitioners. In J. Leaver & J. Willis (Eds.), *Task-based instruction in foreign language education* (pp. 3–44). Washington, DC: Georgetown University Press.

Winet, D. (2016). Mobile instant messaging in the ESL writing class. *The Electronic Journal for English as a Second Language, 20*(3), 1–6.

Winne, P. H., & Marx, R. W. (1989). A cognitive-processing analysis of motivation within classroom tasks. In C. Ames & R. Ames (Eds.), *Research on motivation in education: Vol. 3. Goals and cognitions* (pp. 223–257). San Diego: Academic Press, Inc.

Zengin, R. (2007). A research about the English language teachers' use of instructional technologies in Turkey. *Hasan Âli Yücel Eğitim Fakültesi Dergisi, 4*(2).

Cogent Education (ISSN: 2331-186X) is published by Cogent OA, part of Taylor & Francis Group.

Publishing with Cogent OA ensures:

- Immediate, universal access to your article on publication
- High visibility and discoverability via the Cogent OA website as well as Taylor & Francis Online
- Download and citation statistics for your article
- Rapid online publication
- Input from, and dialog with, expert editors and editorial boards
- Retention of full copyright of your article
- Guaranteed legacy preservation of your article
- Discounts and waivers for authors in developing regions

Submit your manuscript to a Cogent OA journal at www.CogentOA.com