INVESTIGATING THE IMPACTS OF TECHNOLOGY ENHANCED LANGUAGE LEARNING IN ESL CLASSROOMS

Shabana Zafar
Program Head: BSELL
Department of Linguistics and Communications
University of Management and Technology
Shabana.zafar@umt.edu.pk
Fouzia Azhar
Visiting Faculty
Superior University
fouzia.omer.fall24@gmail.com
Dr. Farhana Akmal Cheema
COD
Social Sciences Department
Superior University
farhana.akmal@superior.edu.pk

Abstract
The computer has become fundamentally important in all aspects of life in 21 centuries, including education, for decades Technology enhanced language learning has been a topic of educational research. The present study, therefore, is focused on finding the of the effectiveness of Technology enhanced language learning (TELL) in teaching language courses at the university level for undergraduates. A qualitative approach for research methodology was applied to get an in-depth analysis in this area of research. To investigate the effectiveness of TELL on students in communication skills teachers' perception was investigated on the basis of the interviews. Semi-structured interviews from 16 on job university teachers. TELL based course was designed and taught to the students of second semester. The purpose was to explore the factors for the effectiveness Technology enhanced language learning (TELL) so the subjects were divided in two groups, Group A was taught TELL based course and group B was taught regular language course offered by the university. The results of qualitative data proved the effectiveness of TELL on students' communication skills. The findings of the teachers interviews confirmed coding and thematic analysis. The future recommendations were in the favor of the application of TELL in teaching English as second language learning.

Key words: Technology enhanced language learning, communication skills, ESL

Introduction and Literature Review
In this era the use of computer assisted language learning (TELL) has immensely increased around the world (Lee, 2000). In teaching second language computer assisted language learning (TELL) has been effectively implemented in language courses over the last two decades In countries like Pakistan there is still a need to research and implement computer technology in education.

Recently there has been a growing interest in using the English language in all fields of study and professions. The uses of English facilitate access to positions of power in Pakistan and abroad. This is why it is thriving in Pakistan and efforts are being made to improve its teaching (Abbas, 1993) , and(Rehman, 2008). English is still considered to be the language of power and prestige as a result a number of English medium institutions are on the rise as Mark Tully (1997) observes, these schools 'attract the best teachers, the resources (technology) to provide modern facilities'

The constructive role of electronic devices like computer and internet has a deep impact on the role of educators, these devices have eased their burden of teaching and learning. To meet the global standards of being proficient in English language is the dire need of the hour. To fill this

gap, electronic devices like Mobile-Assisted language class and Computer-Assisted language classes, can make our learners more motivated, independent, inquisitive by getting connected to audio-visual aids, rich scenarios with vocabulary along with pronunciation and games.

The rapid technological changes of 21st century are changing the landscape of second language (L2) teaching and learning (Zhou & Wei, 2018). These researchers, have shown us examples of online and blended learning with the help of internet, mobile and computer. In such a situation, where a shift from traditional to modern approach is being observed, demand is arisen for the adaptability of technology by the educators especially for English Language faculty. As few gaps have been highlighted by researcher about time constrain.

Involvement of Technology in English learning

Entry of Technology in teaching is one of the biggest challenges of today's changing era. To be aligned with technology is the demand of the job. Technology creates more productive education and more interesting (Shyamlee & phil, 2012).

Computer-Assisted Language Learning (TELL)

According to Nachoua 2012, TELL allows students to work at their level. No doubt, the use of computer assisted program will boost the motivational level of students.

Mobile-Assisted Learning Language (MALL)

In 2016, Yaman and Ekmekci define mobile based learning as a new dimension in L2 teaching and learning. Mobile apps and educational applications have revolutionized ESL program. Students as well as teachers can easily install these applications to enhance vocabulary, creativity, passion, intellectualism, critical analysis and overall language growth.

Audio Visual aids

To develop four major aspects of language, listening, reading, writing and speaking. Audio visual aids played the vital role. To make the lesson more interesting, its teacher's responsibility to bring real world into the classroom to develop concrete and clear concepts. The combination of pictures, sounds and text are beneficial in ESL learning (Wazeema & Kareema, 2017).

Gamification

To get inspired by the science of gamification, it is adopted by the educators in different fields as well as by language teachers in ESL program. Gamification applies game elements with thinking and critical evaluation of the situation to achieve points, levels, badges and ranking by overcoming the challenges and difficulty level. Educators try to use game element or game psychology in real world classrooms to achieve intended outcomes. That will ease the gap between student's learning and educational practice (Yanes & Bound, 2019).

Technology and Active learning

Throughout our lives, learning process never end, from infant to the last stage of life. In the modern world of technology, its noticed that even toddlers are very smart to use gadgets like remote controls, mobiles and tablets. One of the prominent elements of technology is that it gets involved with the user and secondly its user friendly, easy and entrapping. The Impact of technology in education is felt seriously (Raja & Nagasubramani, 2018). Important innovations like internet, computers, laptops, mobiles and access to a variety of apps, research engines and databases have changed the entire world. Now, the students are not passive learners they are active participants, eager and inquisitive to learn and explore. This positive change is merely due to the motivation, involvement of ICT and cooperative learning atmosphere. For example, with the integration of ITC in language class, our learners are participating in pair work, group work. Eventually to present their work in power point slides, they learn cooperative learning along with the enhancement of their technical skills needed for future endeavors.

The research intends to explore the impact of computer assisted language learning (TELL) on language teaching and learning, to measure its impacts on language teaching and learning and to predict possible future developments. The purpose is to assess the effectiveness of computer assisted language learning (TELL) in English language teaching courses offered to the undergraduate at the University level.

Rationale of the study

TELL plays an important role in language learning in an ESL environment to acquire communication skills. This will facilitate the incorporation of relevant technologies in the advancement of Pakistan's language teaching and the education system. Through TELL, computer-based resources are used to deliver, equip students in second language learning.

Background to the study

The influence of technology in education is an established reality. Many universities have introduced TELL for improving quality of teaching and enhancing the student learning experience. This is being done by profoundly revising their current teaching practices and resources to create more effective learning environments. TELL is used as a resource to innovate teaching practices: digital content, interactive teaching media (e.g., interactive boards), assessment, learning management system (LMS).

Aims and objectives

The research aims to
- investigate teachers 'perception about the effectiveness of TELL
- analyze the effects of TELL on students' performance

Research Questions
- What are the perceptions of language teachers about the use of TELL in an ESL classroom?
- What is the impact of TELL on students' performance?

Research Methodology

The research investigates using the quantitative approach. The data, from qualitative instrument which was misstructured interviews, was analyzed to investigate the role of TELL in teaching (particularly in second language teaching), the role of technology as a tool and its effective integration into language curriculum and classroom.

Data Analysis

The interviews data was analyzed into codes and themes, which was further related to the research objectives and the research questions. In table no. 1 the responses were categorized based on the comments and themes were decipher according to the insights s given in the comments.

1. **Table of Responses**

Theme	Supporting Respondents	Example Comments / Insights
Increased Motivation	1, 2, 4, 5	"Students are more engaged and motivated with TELL."
Skill Development	1, 2, 3, 5, 6, 7, 8, 9	"Software for pronunciation is helpful"; "Games and listening tasks."

ISSN E: 2709-8273
ISSN P:2709-8265

JOURNAL OF APPLIED LINGUISTICS AND TESOL

Vol.8. No.3.2025

JOURNAL OF APPLIED
LINGUISTICS AND
TESOL

Autonomy & Self-Assessment	3, 7, 8, 9	"Helps in self assessment and independent practice."
Authentic Language Exposure	3, 4, 5	"Exposure to native accents via online."
Time Saving & Resourceful	1, 3, 6	"Saves time and enriches classroom resources."
Distraction / Waste of Time	1, 2	"Could be a distraction if not monitored."
Cost / Infrastructure Issues	4, 7, 9	"High costs, lack of labs and resources."
Trained Staff & Resistance	6, 7	"Lack of qualified teachers", "Teacher resistance to adopting TELL."
Importance of Teacher	All	"Teachers remain essential for material selection and guidance; TELL should complement, not replace, traditional teaching."

Interpretation of the table no. 1

Overall Sentiments: Most respondents view TELL as beneficial for language skill development, motivation, and autonomy but stress that it should complement—not replace—traditional teaching.

Implementation Needs: Investment in infrastructure and teacher training is essential for TELL's success.

Balanced Approach: Blended learning (TELL + traditional) is considered optimal.

Teacher's Role: Teachers should curate activities and resources, and monitor students effectively to maximize TELL's benefits and minimize distractions.

Here is a summary table of the interview analysis based on your data. Each major theme is listed with supporting respondents and example comments for clarity.

1.1 Thematic Analysis and Coding Table

Code	Example Quotes / Comments	Theme
TELL increases motivation	"Students are more engaged and motivated with TELL."	Increased Motivation
TELL makes learning interesting	"TELL would be an interesting and effective technology in an ESL classroom."	Increased Motivation

Access to authentic materials/accents	"Exposure to native accents via online."	Authentic Language Exposure
Self-assessment and autonomy	"Helps in self-assessment and independent practice."	Autonomy & Self-Assessment
Facilitates speaking/listening skills	"Students can practice speaking skills, can listen to different accents and correct pronunciation."	Skill Development
Enhances reading and writing	"TELL accelerates the process of writing, ensures accuracy, and makes it more presentable."	Skill Development
Variety of activities for learning	"Different activities are used in classrooms like language games, listening and speaking activities."	Skill Development
Time saving/convenience	"Use of computers in language classrooms is a time saver."	Time Saving & Resourceful
Ready access to resources/material	"A lot of readily available material for assignments."	Time Saving & Resourceful
Requires monitoring/distraction risk	"Students may indulge in other activities and waste their time if not monitored."	Distraction / Waste of Time
Cost/infrastructure challenges	"High costs, lack of labs and resources."	Cost / Infrastructure
Need for teacher input/blended method	"Technology cannot fully replace teachers; it should complement traditional teaching."	Importance of Teacher / Blended
Lack of trained teachers	"Lack of qualified/ trained teachers for TELL."	Trained Staff / Resistance
Teacher or resource person dependence	"Depends on the teacher's ability to select engaging activities."	Importance of Teacher / Delivery
Resistance to new technology	"Most teachers resist using technology and prefer traditional teaching."	Trained Staff / Resistance

How Coding and Thematic Analysis Work

Coding: Short phrases (codes) are assigned to meaningful segments of the text that capture the essence of that point.

Theme Formation: Similar codes are grouped into broader themes that represent patterns in the data. Example of Thematic Structure

Theme: Increased Motivation

Codes: "TELL increases motivation", "TELL makes learning interesting"

Theme: Skill Development

Codes: "Facilitates speaking/listening skills", "Enhances reading and writing", "Variety of activities for learning"
Theme: Autonomy & Self-Assessment
Codes: "Self-assessment and autonomy"
Theme: Authentic Language Exposure
Codes: "Access to authentic materials/accents"
Theme: Time Saving & Resourceful
Codes: "Time saving/convenience", "Ready access to resources/material"
Theme: Distraction / Waste of Time
Codes: "Requires monitoring/distraction risk"

1.2 Code Table

Code	Theme
TELL increases motivation	Increased Motivation
TELL makes learning interesting	Increased Motivation
Access to authentic materials/accents	Authentic Language Exposure
Self-assessment and autonomy	Autonomy & Self-Assessment
Facilitates speaking/listening skills	Skill Development
Enhances reading and writing	Skill Development
Variety of activities for learning	Skill Development
Time saving/convenience	Time Saving & Resourceful
Ready access to resources/material	Time Saving & Resourceful
Requires monitoring/distraction risk	Distraction / Waste of Time
Cost/infrastructure challenges	Cost / Infrastructure
Need for teacher input/blended method	Importance of Teacher / Blended
Lack of trained teachers	Trained Staff / Resistance
Teacher or resource person dependence	Importance of Teacher / Delivery
Resistance to new technology	Trained Staff / Resistance

Describing the Key Themes and Codes from Your Data
Increased Motivation:
Several respondents stated that using technology and TELL (Computer-Assisted Language Learning) makes classes more interesting, engaging, and boosts student motivation and interest.
Skill Development:
TELL was credited with improving multiple language skills including speaking, listening, reading, and writing, often through interactive activities and software

Autonomy & Self-Assessment:
Respondents mentioned that students could independently assess and improve their skills using computers, leading to more autonomous (self-driven) learning.

Authentic Language Exposure:
TELL facilitates exposure to real-life accents and authentic materials, which would be hard to deliver in a traditional classroom.

Time Saving & Resourceful:
The use of TELL saves teachers and students time, and provides a vast pool of resources and activities to choose from.

Distraction / Waste of Time:
Some respondents raised concerns that technology could become a distraction if students are not properly supervised.

**Cost / Infrastructure Issues:**
Several highlighted the high costs associated with technology (equipment, electricity) and the lack of adequate infrastructure (labs, resources).

Trained Staff & Resistance:
The need for properly trained teachers was emphasized, with resistance from teachers used to traditional methods noted as a challenge. Many respondents argued that while technology is helpful, teachers play a vital role in guiding learning and selecting appropriate resources. Technology should complement, not replace, the teacher.

1.4   Thematic Map: Teachers' Perceptions of TELL in ESL Classrooms

TECHNOLOGY ENHANCED LANGUAGE LEARNING (TELL)
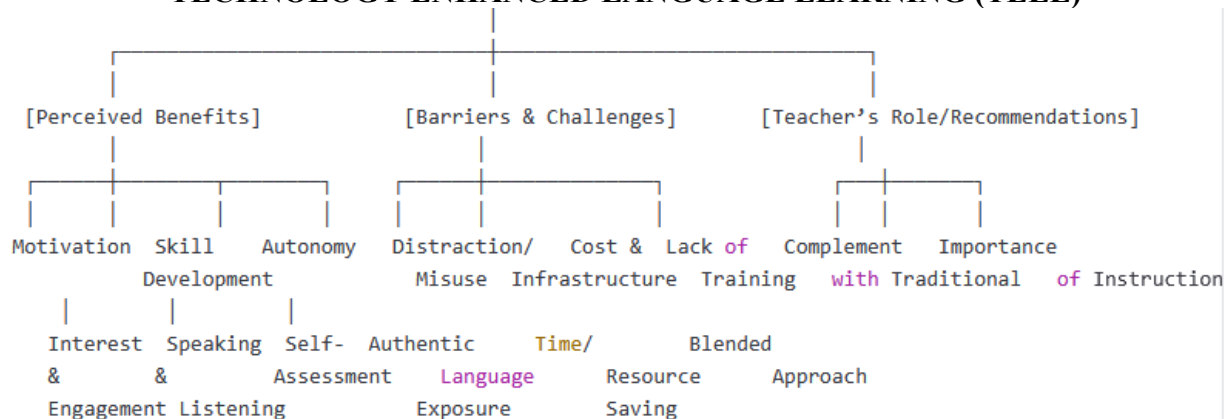
Finding of the interviews
The findings of the interview data also revealed the advantages of using computers in teaching second language teaching and learning. Teachers, during the interviews, regard internet as an

immensely useful resource in a language classroom. In Pakistani classrooms the use of computers is still a new phenomenon regarding language teaching; teachers are in favor of using computers and want to take advantage of the internet boom.

The findings and analysis of the data has reflected that for teachers the major advantage is the motivation provided by computer activities to the students which ultimately resulted in optimizing in language learning teachers are the vital figures to determine the motivation towards second language. Although the role of teacher, in a language course, is to generate motivation but in TELL based course this rule is adopted by the computers as the feedback provided to the students generates motivation as Gardener (1985) suggested 'integrative motivation' which will result in long time success and related to greater motivational effort and competence in second language (Gardener & Lambert, 1972). The finding of the data reveals that teachers and high level of motivation used computer in second language as they are the source of generating and maintaining motivation towards second language learning in students. Students with high motivational levels have more self confidence so they have more success in second language teaching. As explained in Krashen's (1982) Affective Filter Hypothesis.

The finding also revealed that teachers regarded the use of computers provided more facilities for activities based on skill development according to the teacher observation. Most of the respondents commented that computers provided readily available activities for second language acquisitions. Skill teaching in second language according to the respondents was assisted by the use of computers, in a more organized way, in the classrooms. Respondents said that the variety of activities made teaching and learning were rewarded. As one of the teachers commented, "Students can make their spoken language better by listening activities available on live. There are activities for listening and games for brain storming grammar rules. For another teacher computer was part of her teaching methodology. Different activities were used in classrooms like; language games, listening and speaking activities.

As one of the teachers commented, 'Teaching in an ESL classroom involves challenge and variety of activities to sustain the in the interest level of the students.' 'Use of the computer is part of my teaching methodology. Different activities are used in classrooms like; language games, listening and speaking activities'. The researchers also agreed that the major benefits of TELL were its capacity to provide instructions which were interactive, informative, self-paced, students-centered, neutral, and patient (Wyatt, 1984). According to the responses of the teachers it is evident that they regard computer activities as 'flexible' and can learn at their own pace as Hartoyo (2008, 21-26) described briefly that computer has unique features. One of these unique features the computer is flexible. The learner can study at home with their computer even they could not attend the class for any reason. They can retrieve information whenever and how long about the material. Another feature that computer has, is that computers can be interactive with its users. A well-designed computer application allows a broad interaction between learners and computer; in addition, if a computer combined with audio and video, it can be more interactive and interesting. The computer can encourage learners in learning a language. It can enhance the development of communicative competence in learning a language. The computer can also allow students to study at their own tempo, without fear of being blamed or making some mistakes

From the findings of the interviews, it is clear that teachers regard the application of this technology would encourage students to be autonomous learners. The participants argued that technology provided a wide range of language learning experience for students in both independent and collaborative learning experiences. Most of the teachers commented that the use of computers, in their experience, had lessened the dependency of students on teachers. Computer technology has reduced the dependency of students on classrooms as class tutorials

and tools available for students to enhance language skills. TELL tools provide an abundance of resources for students to develop either a single skill or developed language as a whole. Researchers like King (1999) observed that computers can be beneficial for learner if they wanted to enhance their reading skills as skimming, scanning, recognizing details of topic sentence writing skills can better by the use of word processor or online grammar and style free websites. TELL tools provide activities which are communicative and interactive which can enhance the linguistic skills where students are free from peer resources promote motivation and self-confidence.

Recommendations

The effectiveness implication of TELL-in language courses depends on a number of factors; e-learning and e-teaching, web managers, material developers, content designers teacher training, infrastructure including computer lab and energy resources. The research, based on TELL based communication skills course, suggested following points for future implication of TELL-based courses.

E-teaching

In TELL based courses the teacher not only teaches in classrooms but also adopts the role of e-tutor. As the activities are performed online, instructions are given online through emails or Moodle. For teachers to acquire the role of e-tutors demands some skills to deliver e-content to students' communication with students in synchronous and asynchronous ways and online and feedback through emails or on Moodle. For the implication of TELL based coursed the training of teacher is very important; the training should include a blend of academic and technical skill in online teaching methodologies and in organizing the content in online courses.

Material development for TELL- based courses

The process of preparing the content for TELL based courses is material development for students. It includes few experts like material developers, online content designers and web managers. For students of TELL-based course the material developers design resources, content designers convert the recourses for presentation and web managers upload the files and manage course contents. However, with the help of Moodle a teacher can easily adopt all these roles because Moodle has provided facilities for the teachers to be manager, developer and coordinator of the course. It's up to a teacher's discretion to select the readily designed material and adapt it according to the requirements of the course to achieve the set objectives of the TELL based course. As a course manager the teacher selects which file to be uploaded, which assignment to be made a presentation and which chat or discussion forum is selected for the feedback. The needs of students, is most important for the teachers, should be catered while selecting the website for activities or assignments. As a teacher can easily adopt the role of content designer as there is an abundance of online material available still a teacher has to decide which material has to be selected for interactive activity for 'discussion forum' a Moodle blog or for chat rooms or for assignments keeping in mind the objectives.

For the effective implementation of TELL-based courses at the universities or schools, there must be a strong policy and discussion making spirit required. There are few crucial features significantly in the implementation of TELL; infrastructure and training. An applicable infrastructure, for TELL- based courses, is very much important which is determined by the required funds, technical support regarding hardware and software. The instructional design and LMS must be used to keep in mind the needs of students and feasibility of this system. For the implementation of the TELL based teaching, the teachers must be trained regarding e-teaching and the use of Moodle.

Recommendations and Suggestion for Future Research

The effectiveness implication of TELL in language courses depends on a number of factors; e-learning and e-teaching, web managers, material developers, content designer's teacher training, infrastructure including computer lab and energy resources. The research, based on TELL based communication skills course, suggested following points for future implication of TELL-based courses.

Around the world universities and institutions are using TELL-based courses for language teaching. The study has proved that TELL-based courses are very effective in second language teaching (in Pakistan): teachers' perceptions regarding the use of computer technology in second language teaching can be effective in policy making and addressing the barriers in the implementation of computer assisted language learning can be resourceful for learning language. To develop a TELL-based learning environment stalk holders must focus on eliminating the barriers. Based on the findings; of the interview data, focused group discussion, the results of the pretest and posttest, a number of recommendations are presented. There is a potential for future research in this area. Future researchers are needed to research in the following field to verify the effectiveness of the following recommendations.

•   A researcher must be technicallyy equipped for the TELL based courses and must have command on online learning and on the theoretical backgrounds in the related field.

•   A researcher can experiment TELL in another discipline also.

•   A researcher can conduct research on an authentic language testing system

Although the effectiveness of TELL based course has been proved by the study still research is needed in the following areas:

•   Availability of hardware for the implementation of TELL based hardware is very important so the institution should ensure proper infrastructure.

•   Availability of software: there is rapid evolution in technology which has challenged the pedagogy of teaching, demanding new ways of instructions so the methodologies, strategies and tools should integrate with the curricular in an organized way to help students with the demands much changing world. The use of proper software can ensure students learning through technology.

•   Teacher training as regards technological literacy: teachers should be trained so that they have self-confidence on their use of technology.

•   Teacher training as regards TELL implementation/pedagogy: teachers should be trained how to implement TELL in the classroom without compromising language learning pedagogy.

•   Provision of plentiful support for teachers: technical and pedagogical support is essential in order to save teachers' time spent on maintaining the equipment and help build teachers' confidence in their efforts to use new technological applications.

•   Personalization of technology: learners and teachers should have free access to technology and should have a sense of ownership towards the technology, feel comfortable, and at ease with the tool. It was argued that perhaps for this to be achieved if teachers and students should have their own computers.

•   Involvement of teachers in decisions about technology: it is important that teachers should be involved in the process of TELL implementation and promotes the feeling of ownership, which teachers should have about technology.

•   Policy makers and administrators should know the importance of TELL and introduce it in the curriculum.

References

Abbas, S. (1993). The power of English in Pakistan. *World Englishes*, *12*(2), 147-156.

Kledecka-Nadera, A. (2001). Application of computer-assisted language learning in the development of reading comprehension skills. *Retrieved January*, *29*(2012), 241-253.

Lee, R. (2000). The Lee-Carter method for forecasting mortality, with various extensions and applications. *North American actuarial journal*, *4*(1), 80-91.

Nachoua, H. (2012). Computer-assisted language learning for improving students' listening skill. *Procedia-Social and Behavioral Sciences*, *69*, 1150-1159.

Rahman, T. (2008). Language, Religion and Politics. Urdu in Pakistan and North India. Revue des mondes musulmans et de la Méditerranée, (124), 93-112.

Rahman, T. (1999). Language, politics and power in Pakistan: The case of Sindh and Sindhi. Ethnic Studies Report, 17(1), 1730-1848.

Rahman, T. (2001). English-teaching institutions in Pakistan. Journal of Multilingual and Multicultural Development, 22(3), 242-261.

Raja, R., & Nagasubramani, P. C. (2018). Impact of modern technology in education. Journal of applied and advanced research, 3(1), 33-35.

Setiawan, A. H. (2019). The Use of Skimming and Scanning Techniques in Reading Comprehension for Toefl (An Experimental Research at UIN Ar-Raniry Banda Aceh) (Doctoral dissertation, UIN Ar-Raniry Banda Aceh).

Shyamlee, S. D., & Phil, M. (2012, June). Use of technology in English language teaching and learning: An analysis. In *International Conference on Language, Medias and Culture* (Vol. 33, No. 1, pp. 150-156).

Tully, M. (1997). English: an advantage to India? ELT Journal, 51(2), 157-164.

Wazeema, T. M. F., & Kareema, M. I. F. (2017). Implication of multimedia audio-visual aids in the English language classroom.

Yaman, İ., & Ekmekçi, E. (2016). A shift from CALL to MALL?. Participatory Educational Research, 4(2), 25-32.

Yanez, G. A., Thumlert, K., De Castell, S., & Jenson, J. (2019). Pathways to sustainable futures: A "production pedagogy" model for STEM education. *Futures*, *108*, 27-36.

Zhou, Y., & Wei, M. (2018). Strategies in technology-enhanced language learning. Studies in Second Language Learning and Teaching, 8(2), 471-495.