



**Mariusz Kruk and Mark Peterson (Eds.),
*New Technological Applications for Foreign
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New Technological Applications for Foreign and Second Language Learning and Teaching published in 2020 is part of the IGI Global book series *Advances in Educational Technologies and Instructional Design (AETID)*, which assembles state-of-the-art research in (language) teaching and learning with technologies. The present peer-reviewed volume, edited by Mariusz Kruk and Mark Peterson, is dedicated to exploring diverse current practices, research, and implications in technology-enhanced language learning and teaching. In their preface, the editors touch on the role of technology in today’s society and introduce the readers to the aims and contents of the volume.

The book is divided into two sections: a theoretical and a practical one. The former, entitled *Theoretical Considerations* comprises the first five chapters that look into computer assisted language learning (CALL) and the research of selected subfields within it. The remaining ten chapters are subsumed under the heading *Practical Applications*, covering empirical research into digital tool and technology-enhanced pedagogy integration into the language classroom. Each chapter is rounded off by a list of recommended literature and a list of key terminologies (and brief definitions) used in the chapter.

John Blake commences the theoretical considerations with a contribution entitled “Intelligent CALL: Using Pattern Matching to Learn English” (Chapter One) which discusses the application of natural language processing for language learning. The author first provides a history of CALL and intelligent CALL, and then discusses patterns and their use for language learning through

a discovery learning, data-driven learning (DDL) approach. Throughout, contextual factors surrounding EFL learners whose L1 is Japanese are addressed and two tools developed specifically for Japanese university EFL learners and pilot studies of their effectiveness are presented.

In “Pedagogical Considerations for Successful Implementation of Virtual Reality in the Language Classroom” (Chapter Two), Ryan Lege, Euan Bonner, Erin Frazier, and Luann Pascucci introduce the VR Application Analysis Framework. This framework was designed to help language teachers analyze commercial virtual reality applications in terms of their feasibility for language learning purposes. In addition to the components of the framework, its application in analyzing a selection of VR applications is included in the chapter.

In Chapter Three—“The Case for Qualitative Research Into Language Learning in Virtual Worlds”—Luisa Panichi presents an extensive account of research into virtual worlds in CALL with the aim of “opening up our thinking as a community to wider scrutiny and debate in the interest of the validity of our research on the one hand, and future research decisions and directions on the other” (p. 48). She argues for the continued validity of qualitative approaches within the field which is characterized by the researcher-practitioner configuration and the fluidity of the medium studied, which constantly produces uncharted territory for exploration.

Mark Peterson, Jeremy White, Maryam Sadat Mirzaei, and Qiao Wang devote Chapter Four to “A Review of Research on the Application of Digital Games in Foreign Language Education.” The authors first consider features of digital games which are attributed educational merit from a general educational, a cognitive and social linguistic perspective. These features are then supplied with evidence through the synthesis of the 26 research studies reviewed. In addition to a valuable overview, the chapter uncovers numerous avenues for future investigation.

In “Gamification for Technology-Enhanced Language Teaching and Learning” (Chapter Five), Joan-Tomàs Pujolà and Christine Appel draw the readers’ attention to different terminology which is often used interchangeably despite significant conceptual differences (e.g., game-based learning vs. gamification) and explain how these approaches differ. An overview of the dearth of research into gamification of language learning experiences is followed by useful design recommendations, tools and resources for gamifying language learning through technologies. The chapter closes by suggesting that future research in this domain should draw on replication studies and design-based research to study innovative design and attempt generalizations of findings.

Section Two, which assembles practical applications of technologies in language learning and teaching, begins with Farhana Ahmed’s contribution on “Investigating Learner Autonomy and 21st Century Skills in Blended Tech-Enhanced Language Learning” (Chapter Six). In the context of a blended

learning EAP course which employs products of the Google Suite for communication and collaboration, learner autonomy is explored using Benson's (2011) learner autonomy framework. A discussion of the implications of the findings for practitioners including "the need for educating students about the specific technologies that are being used by the teacher" (p. 129) conclude the chapter.

Chapter Seven, authored by Alberto Andujar and Fidel Çakmak, uncovers the potentials of "Foreign Language Learning Through Instagram: A Flipped Learning Approach." This mixed-methods case study in secondary education examines how learners perceived the use of teacher recorded instructional videos uploaded to Instagram for instruction outside the classroom prior to in-class practice. Although the platform was chosen due to its responsive design (e.g., layout adapts to screen size) and its popularity among adolescents, the log data revealed that fewer than half of the students accessed the videos.

Chapter Eight, "Using Digital Storytelling to Handle Second Language Writing Anxiety and Attitudes: A Longitudinal Experiment," by Seyit Ahmet Çapan, describes a quasi-experimental design to measure and compare language mistakes, writing anxiety and attitudes towards writing of two groups of university students with elementary L2 skills. While the one group produced stories using pen and paper, the other one created digital stories. Findings suggest that the latter perceived writing in a more positive light.

Juan Francisco Coll-García reports "Students' Perceptions Toward an International Telecollaboration Project Through an Engineering-Themed Online Simulation in a Language-Learning Setting" in Chapter Nine. The findings highlight the pedagogical need for learners to understand the rationale behind such projects, the different aims pursued by all involved parties and how they connect to the curriculum.

Chapter Ten by Hiroshi Hasegawa, Julian Chen, and Teagan Collopy also investigates learner perceptions: "First-Year Japanese Learners' Perceptions of Computerised vs. Face-to-Face Oral Testing: Challenges and Implications." The computerized oral testing mode is described as learners voice-recording their answers to questions posed in the form of pre-recorded teacher videos achieved through a computer program. While this chapter indicates that it focuses on a first analysis of a larger data set and on student experience, the reader is left curious as to how the computer-based oral tests are assessed and how assessment affects the time reduction reported as one of the main benefits of this examination mode for teachers.

Ferit Kiliçkaya focuses on "Using a Chatbot, Replika, to Practice Writing Through Conversations in L2 English: A Case Study" in Chapter Eleven. The qualitative case study explores learner perceptions of practicing writing in the L2 through instant messaging with a chatbot which through this interaction increasingly replicates the human participant. The discussion concludes by

stressing the need to “consider course objectives and pedagogical uses” (p. 231) of technology integration into the language classroom.

In Chapter Twelve, “Considerations for Future Technology Development Based on EFL Teachers’ Integration of Technology,” Tim Kochem, Ananda Astrini Muhammad, Yasin Karatay, Haeyun Jin, and Volker Hegelheimer present the Global Online Course which trains English language teachers in employing tools and digital resources for teaching the four skills, grammar and vocabulary. On the basis of naturalistic inquiry, the team of researchers explore language teachers’ interaction with the course content and their set of ideas of technology integration. This chapter includes preliminary findings and discusses how these and the course can contribute to spreading knowledge of technology-enhanced teaching, providing an overview of useful tools, and in contributing to what they term “usable technology” development (p. 254).

Lina Lee addresses intercultural and interpersonal learning through virtual language exchanges in Chapter Thirteen (“Promoting Interpersonal and Intercultural Communication With Flipgrid: Design, Implementation, and Outcomes”). Using the video response platform Flipgrid, an L2 Spanish class consisting of L1 English-speakers interacted with an L2 English class whose L1 is Spanish through short videos they recorded of themselves in the respective L2. The discussion includes insights into tasks, pedagogical considerations and shortcomings of (employing) the video platform.

In Chapter Fourteen, Hsien-Chin Liou and Tzu-Wei Yang focus on “Data-Driven Learning at the English Drafting Stage.” This mixed methods, action research study examines Asian EFL university students’ use of monolingual (COCA) as well as bilingual (TANGO and Totalrecall) corpora in data-driven learning (DDL) while composing the draft version of an essay; screencasts of students’ activity on the computer served as one source of data. The findings suggest that the students primarily employed corpora to define patterns but can nonetheless be described as “emergent pattern hunters” (p. 293).

DDL also constitutes the research interest of Chapter Fifteen, the final chapter, by Nina Vyatkina. In “Corpus-Informed Pedagogy in a Language Course: Design, Implementation and Evaluation” the researcher proposes a pedagogical framework for incorporating DDL into L2 teaching practice. Following a design-based research approach, the development, implementation and evaluation of a DDL university course for German as an L2 are described using the ADDIE model as adapted by Colpaert (2006) as a descriptive framework.

This volume provides detailed insights in the scope and breadth of practice in and research into the intersection between language learning and technology. The definitions, keywords, and suggestions of further reading make the volume accessible to novices and non-specialists, yet the scope of topics and applications make it an interesting resource for researchers and practitioners

as well. The latter will appreciate the large number of specific tools discussed, investigated and evaluated.

Throughout the volume, the important role of language learning pedagogy and instructional design are either stressed from the outset or emergent through the findings of practical applications. Areas which seem to have been largely neglected are data protection, privacy and further context specific ethical considerations of practical applications in general and specific technologies discussed in particular (e.g., Google Suite, Replika, Flipgrid, etc.). Especially when commercial applications or applications which collect (sensitive/personal) data of learners are involved, implications and possible consequences should be discussed and considered critically.



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