



Review of *Technology and the psychology of second language learners and users*

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Technology and the psychology of second language learners and users

Freiermuth, M. R. & Zarrinabadi, N. (Eds.)

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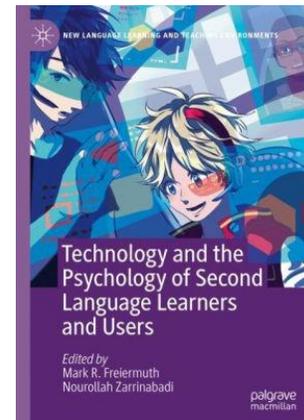
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In this book, *Technology and the Psychology of Second Language Learners and Users*, the editors Freiermuth and Zarrinabadi bridge a gap by uniting two highly relevant issues in language learning: technology use and educational psychology. Individual differences in language learning are increasingly being addressed in research as teachers seek to better serve different language learners across a wide variety of learning contexts. Almost prophetically, this book was released in late March, 2020, right as pretty much all of education in the world shifted to online methods due to the COVID-19 pandemic. So, while this book does not directly address this world-wide, massive shift to online learning, it does give highly relevant examples of the interaction between learning through and with technology. Furthermore, it reviews the nuanced, psychological aspects of learning online, such as motivation and anxiety, as well as learner attitudes toward learning via technology and how technology mediates learner identity. The edited volume unites more than 20 research studies that focus on learning and using language through a variety of digital methods and platforms in a wide range of contexts. The vast majority of the studies are situated in formal instructional settings, including elementary, high school, and university contexts, but a couple of studies investigate general language use. The technologies covered range from common social media, such as YouTube videos and Facebook groups, to general educational technology, such as learning management systems or universally used software, to platforms and programs designed specifically for teaching various aspects of language, including virtual reality environments and language learning apps.

This book examines the interplay between technology and the cognitive and psychological differences among learners. Individual differences among learners is an important consideration for teachers at any level. As Freiermuth wrote in the introduction to this edited volume,

Each student is different, and although it would be nice (in some ways) to put students in the same box, it cannot be done. If students were all the same, there would be no need to consider the psychology of language learners because standard curricula could be developed that would satisfy every language need of every learner – 100% of the time. (p. 5)

He goes on to claim that, as learner needs are not uniform, they must be considered in order for teaching to be effective. Furthermore, the ability to understand the confluence of technology with learners' psychological and cognitive needs is essential as technology becomes an increasingly integral part of the

language classroom and language learning in general. This book clearly targets language teachers and researchers, providing a myriad of examples of technologies being used as well as language learning situations. The various chapters provide context to language teachers on the effects of various technologies as well as aspects of learner psychology. They serve to situate researchers within the current status of research on the two areas as well as inspire future research directions, with both quantitative and qualitative methods employed.

The book is divided into seven parts, with the first and last being the introduction and concluding remarks. The remaining five parts, comprised of 3-5 chapters each, cover different psychological aspects of language learning: Pragmatics and Processing, Emotional and Behavioral Constructs, Language Learner Identity, Attitudes and Perceptions, and Motivation and Willingness to Communicate. As the book has an overall focus on technology, each chapter filters its coverage of the psychological element at hand through the lens of various technologies used in language learning.

Freiermuth's introduction (Part 1) overviews the various aspects of language learner psychology before making the connection to technology-enhanced language learning (TELL). He divides the treatment of language learner psychology into three aspects: fixed assets, semi-fixed assets, and ephemeral assets. The author defined fixed and semi-fixed assets as those determined by nature, and ephemeral assets as a product of nurture. He assigns aptitude as a fixed asset and learning styles as semi-fixed assets. Among the aspects designated in this book as ephemeral assets are the following: agency, attitudes, identity, emotions and affect, and motivation and willingness to communicate. Most of these are briefly reviewed, with the exception of motivation. Following the treatment of learner psychology, Freiermuth turns his attention to technology. He starts with the computer, overviewing the evolution of computer-assisted language learning (CALL), before turning to the effects of technology on learner psychology. He states that "it is easy to imagine that the status of language learners' psychological cogitation was often overlooked for the sake of trying to stay technologically relevant" (p. 15) before reviewing early research into the effects of technology on learner cognition and, finally, summarizing current use of CALL. Freiermuth wraps up his overview of technology by detailing the evolution from computers (and CALL) toward the use of mobile devices, noting that as the available technology changes and allows learners to become more autonomous, the need for research on the effects of technology on learner psychology increases. He finishes off the chapter by summarizing the various chapters included in the volume.

The theme of Part 2, which is the smallest section of the book, is Pragmatics and Processing. Two of the three chapters in this section look at processing and the remaining chapter covers pragmatics. In Chapter 2, Collentine addresses how learners of Spanish use a virtual environment to acquire pragmatic competence, focusing specifically on requests. Alzahrani and Roberts, in Chapter 3, test processing and operationalization of Arabic vocabulary learning using three CALL environments. The 4th chapter, written by Yang, looks at the cognitive and processing effects of YouTube captions and subtitles on vocabulary learning by higher-level students of German.

The four chapters in Part 3 detail various aspects of emotional and behavioral constructs. These chapters all address emotions and attitudes related to technology-enhanced language learning and their associated behaviors. In Chapter 5, Milliner and Barr investigate Japanese students' attitudes toward computer-assisted language testing (CALT) and their associated behaviors. Chapter 6, by Kaçar, is a case study detailing pre-service Turkish EFL teachers' perceptions of a collaborative blogging project. Chapters 7 and 8 address flipped classrooms: Tran and Van Nguyen detail how flipping the classroom in a tourism class increased student engagement, while Huang explains the effects of the flipped classroom methodology on learner autonomy and responsibility, respectively.

Part 4 addresses language learner identity in five chapters. The studies in this section look at how technology use affects and, in some cases, reconstructs aspects of language learner identity. Mendelson, in Chapter 9, uses the logs from a chat-based tutoring program to examine the identity transformation of a student learning Spanish. Chapter 10, by Vazquez-Calvo, Elf, and Gewerc, is a digital ethnography focusing on the identity development and literacy and language practices of a group of Catalan teenagers as they use

YouTube. Klimanova takes a phenomenology approach in Chapter 11, looking at how identity is constructed through online interaction in the L2. In Chapter 12, Jacob, Garcia, and Warschauer explore the way that multilingual upper-elementary aged students develop their identities in and through computer science education. Zarrinabadi and Khodarahmi focus on social networks and learner self-concept in Chapter 13; specifically, they explore the effects of using a social media platform for receiving class material and submitting assignments.

Attitudes and perceptions are the focus of the four chapters in Part 5. These chapters investigate the attitudes and perceptions that learners possess and how these both mediate and are affected by technology use. In Chapter 14, Paschalidou explores how using a blog for interaction affected the participation and attitudes of Greek junior high EFL students. Chapter 15, by Soon, Warris, and Al Marimuthu, examines the intra- and interpersonal perceptions of learners of Chinese regarding the use of a pinyin text-to-speech app. Chapters 16 and 17 are situated in EAP contexts, focusing on EAP writing and EAP speaking, respectively. Olivier's Chapter 16 looks at EAP self-directed writing practice through the lens of technology anxiety, finding that high levels of technology anxiety limit effectiveness. On the other hand, in Chapter 17, Zou, Liviero, Hao, and Wei discuss how they found that students expressed an overall positive attitude toward using an AI-assisted app for developing EAP speaking competence.

The final group of five chapters in Part 6 deals with motivation and willingness to communicate. The first four chapters in this section focus on the role various technologies and contexts play in learner motivation and willingness to communicate, while the fifth chapter examines technology and motivation from the teacher perspective. In Chapter 18, Do and Freiermuth assess how motivation mediates communication between Vietnamese and Japanese English learners and helps them overcome technical issues. Chen and Fong, in Chapter 19, investigate blended learning environments via goal-oriented motivation theory, ultimately arguing that those who design online learning activities for students should be aware of goal-oriented motivational behaviors and their effects. Chapter 20, by Abderrahim and Navarro González, describes how a longitudinal digital storytelling project increased intrinsic motivation among elementary-aged English learners in an after-school program. Chism and Graff's study in Chapter 21 focuses on learner willingness to communicate in lower-level online world language courses, finding that these courses must both be user-friendly and facilitate meaningful interaction in order for learners to be successful. Finally, in Chapter 22, Krystalli, Panagiotidis and Arvanitis propose 15 criteria that teachers should consider when designing activities that employ technology.

Editors Zarrinabadi and Freiermuth provide the concluding remarks in Chapter 23, which comprises the entirety of Part 7. The concluding remarks both unify the themes that are discussed across the various sections and studies and provide suggestions for future research endeavors in this field. The editors focus on the three primary elements that span this volume: language learners, learner psychology, and technology use, emphasizing that these elements are neither uniform nor static. Individual learners interact with technology in different ways, and each learner's psychological responses to a technology may change over time and with use. Additionally, Zarrinabadi and Freiermuth highlight three distinct angles for future research relating to the relationship between language learner psychology and technology use: the impact of technology on language learner psychology, the way language learner psychology influences technology choice, and how technology can help teachers and researchers. Finally, they conclude by mentioning a fourth, especially important factor in this relationship that needs to be considered—teachers—stating that “‘good’ technology is often the result of second language teachers who care enough about their students to incorporate technologies that will maximize the benefits for their students” (p. 603).

The breadth of this book is its biggest asset. It covers a wide range of psychological aspects, technologies, and learning contexts. The various chapters are authored by both teachers and researchers and offer a variety of perspectives on language learning with and through technology. The diversity of topics and approaches allows there to be something for everyone in this book. While a single chapter may not address the exact situation a teacher or researcher finds themselves in, across the book the mixture of languages, learning contexts, and technologies should give multiple examples that are relevant to a specific learning

environment in one aspect or another. Given the scope of this volume, it is, therefore, unlikely that anyone will read this book cover to cover. Rather, most readers will choose a chapter or two that illustrate a topic or context relevant to their research or teaching. As such, the high cost of the book is a major deterrent. It would be beneficial for libraries to include digital version of this book in their collections to enable easy access to individual chapters.

Additionally, specific chapters may be of particular interest to a range of *Language Learning and Technology* readers. Freiermuth's introduction (Chapter 1) provides an effective and efficient overview of the topic at hand and serves as a good jumping-off point for either research or education on these topics. Chapter 22 by Krystalli et al. is particularly useful for language teachers as its list of criteria for technology provides information that has immediate and practical application, especially for those with limited experience incorporating technology into the language classroom; the items in the list could also be applied as a theoretically-based framework for teachers to assess the needs of their own learners in relation to technology. The analysis of future research directions in the concluding remarks (Chapter 23) is of similar practical application to language researchers.

This book intends to provide an exploration of a wide range of topics related to language learning, learner psychology, and technology use. The various studies provide a myriad of examples that language teachers and researchers can analyze as they assess the relationship between technology use and language learner psychology and make decisions related to their own research or learners. The book helps fill a necessary niche in the research by addressing the interplay between language learner psychology and technology use, a relationship that has gained significantly in importance in the last year as much learning worldwide has shifted to online delivery due to COVID-19. This shift has highlighted the importance of understanding how effective (and ineffective) technology use can be, and how aspects of learner psychology relate to one another and, most importantly from a design perspective, to the technology. This volume is a helpful stepping-stone toward greater understanding of these issues and will be a volume educators and researchers draw from for years to come.

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About the Author

Alyssa Wolfe is a PhD student in Second Language Studies at Michigan State University. Her research interests include psycholinguistics and grammar and vocabulary teaching and learning. As a former language teacher, she is especially interested in the relationship between learner cognition and language teaching methods.

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