Technology-Supported Learning In and Out of the Japanese Language Classroom: Advances in Pedagogy, Teaching and Research

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Technology-Supported Learning In and Out of the Japanese Language Classroom: Advances in Pedagogy, Teaching and Research (hereafter, TSL) presents recent studies on pedagogically effective use of new technologies both in and out of the Japanese as a second or foreign language (JSL/JFL) classroom. Zimmerman and McMeekin begin the volume with a thorough introduction to the historical development of computer-assisted language learning (CALL) of Japanese, which is followed by eleven chapters that are divided into five parts. The editors conclude the volume with a discussion of future directions for Japanese CALL studies.

In the first chapter, "Technology Past and Present: The history of CALL and Technology for Learning Japanese," Zimmerman and McMeekin lay the groundwork for readers by offering a comprehensive overview of the history of Japanese CALL, with particular attention to the technical difficulties presented by the complexity of inputting Japanese orthography. The development of Japanese CALL is also explained within the framework of pedagogical approaches in a broader field of CALL, namely, behavioristic, communicative, integrative and ecological stages.

The editors divide the subsequent eleven chapters in five main parts. The first part, "Technology for Writing and Reading," contains two studies that examine the use and effect of technologies for promoting learners' writing skills and web-based reading activities in Japanese. In chapter 2, "Screencast Delivery of Feedback on Writing Assignments for Beginning Japanese Language Students: An Alternative to the Red Pen," Langton investigates the efficacy of screencast (i. e., video-recorded) feedback on writing in comparison to conventional text-based feedback. Through analyses of the learners' work, questionnaire results, their

preferences and perceptions about the delivery method and success rate for error corrections, Langton considers screencasting as a possible option for delivering corrective feedback.

McMeekin in chapter 3, "The Pedagogical Value of Web-based Readings in the JFL Classroom," examines the effect of web-based reading activities for facilitating the learning of intermediate JFL students as they read online text. Instructions on how to use computer-mediated tools (e.g., online pop-up dictionaries) and task sheets with questions and prompts as scaffolding are provided. McMeekin's analyses show that the benefits of web-based reading tasks include enhanced learning, especially of vocabulary and kanji, and improved confidence, motivation and learner autonomy.

The second part, "Collaborative Online Learning," consists of two studies that analyze learning outcomes from computer-mediated communication (CMC). In chapter 4, "Impact of Lexical Categories on Skype-mediated Multimodal Focus on Form and Vocabulary Learning: A Task-based Study," Akiyama examines JFL learners' vocabulary learning via multimodal (i. e., text chat, images, and webcam) CMC. Takamiya and Aida Niendorf in chapter 5, "Identity (Re)construction and Improvement in Intercultural Competence through Synchronous and Asynchronous Telecollaboration: Connecting Japanese Language Learners in the United States and Sweden," shed light on identity development and intercultural competence by examining the content of CMC among American and Swedish JFL learners. The learners participated in asynchronous blog exchanges and synchronous online discussions on identity within a fifteen-week advanced Japanese course framework. Their findings show that social interactions through CMC promoted JFL learners' metacognitive awareness, an understanding and critical thinking of their own and other's cultures, enabling "them to (re)construct their identities and develop their intercultural competence" (139).

The third part, "Creation and Analysis of CALL Programs for Learning Japanese," includes three studies that present the authordesigned innovative CALL programs. In chapter 6, "Rakugo CALL Program for Japanese Language Learning: Its Development and Possibilities for Implementation," Yamada, Sakai, and Bushnell present a CALL program that was designed to support JFL learners' comprehension of humor in rakugo performances. In chapter 7, "Co-Chu: Japanese Corpus Analysis System and Two Analyses for Language

Teaching," Komori, Yamamoto, Homma, and Lanigan introduce their Japanese corpus program that enables researchers and educators of JSL/JFL to conduct complex corpus analysis in one interface. Yonemoto, Tsuda, and Hayashi in chapter 8, "How a Self-Learning Website can be Utilized for Better Pronunciation Education: Bridging Learning In and Out of the Classroom," showcase the online, self-learning CALL program eNunciate! for pronunciation learning and demonstrate its effective implementation in a flipped classroom with a social-constructivist approach. Through in-class social interactions after out-of-class self-study, JFL learners from different linguistic backgrounds were observed to co-construct their learning, enhancing their self-awareness of their own pronunciation issues, confidence, motivation, and learner autonomy. Yonemoto *et al.* highlight the effectiveness of combining out-of-class linguistic activities and in-class social activities in the flipped classroom.

The fourth part, "Learning through Online Games," contains two studies that discuss how vernacular digital games can be utilized as pedagogical tools in JSL/JFL contexts. In chapter 9, "The Effective Use of a 3D Virtual World in a JFL Classroom: Evidence from Discourse Analysis," Yamazaki examines the use of a 3D virtual world in an advanced Japanese conversation course, where JFL learners were immersed in the 3D virtual world of Tokyo. Utilizing discourse analysis of the learners' in-game chat interactions with native speaker (NS) participants, the analysis reveals that social interactions in 3D virtual worlds promote peer-scaffolding and learner autonomy, enabling the participants to construct the target language (TL) via negotiation for meaning. Yamazaki contends that the interaction through 3D virtual worlds generates "opportunities for acquisition of context-specific, pragmatic communicative skills" (244).

Shintaku in chapter 10, "Game-mediated Activities in JFL Classrooms: Considerations and Issues in Learning, Teaching, and Implementation," explores the pedagogical utilization of a vernacular digital game for novice-level JFL learners. To implement authentic materials (i. e., an online game made for Japanese NSs) in the first-semester Japanese course, she selected a game with simple rules, hiragana only text, and an appropriate level of vocabulary, as well as created a series of supplemental materials. The learners' questionnaire responses and written reflections were analyzed to identify learners' perceptions of the game-mediated activities and supplemental materials.

Confirming the high level of appreciation among the learners, Shintaku suggests that vernacular games can be effectively integrated in novice-level Japanese class through the teacher's careful game selection and well-designed scaffolding activities.

The final part, "Technology beyond the Physical Classroom," presents two case studies that illustrate how CMC affects JFL learners' out-of-class language use and multiple aspects of their learning. Zimmerman in chapter 11, "Distance-Learning and Asynchronous Communication While on Study Abroad: Conversation-for-learning and Journal Reflections as a Means to Enhance Language Use," examines the use of asynchronous CMC in a distance learning course, where JFL learners on a semester study abroad in Japan are guided towards enhanced language use and self-reflections. Audio recordings of two learners' face-to-face conversations with NSs, their reflection journals, final papers, and interviews were analyzed for this study. The findings reveal that the learners' guided self-reflections on their interactions with NSs can assist in their learning by promoting awareness of their own and NS interlocutors' TL use, such as conversational adjustments and negotiation.

Finally, in chapter 12, "Learners' Participation in Japanese-related Online Communities and the Relationship between Online Activities and Classroom Learning: A Comparative Case Study of Two JFL Learners," Takeuchi analyzes two JFL learners' experiences in participatory online communities (i. e., media fandom) outside of the classroom to investigate the effects of the out-of-class CMC on the JFL learners' in-class learning. Based on the learners' interview responses, Zimmerman suggests that participation in Japanese-related online communities can expand the learners' Japanese language abilities by creating zones of proximal development. She adds that these activities also contribute to development of identities as Japanese learners and enhance in-class learning by relating to out-of-class activities.

TSL is a superb collection of studies, providing a comprehensive overview of how technology can be effectively used to enhance learning in various JSL/JFL contexts. Each chapter suggests pedagogical benefits of technology use for specific teaching/learning objectives. It also provides practical advice on implementation of technology and the real-life examples of the pedagogical practices. The role and effectiveness of technology use are discussed based on quantitative and qualitative data related to potential learning outcomes, such as promoted linguistic and

intercultural competence. Furthermore, in addition to the editors' thorough overview of Japanese CALL studies and frameworks, the chapter authors offer their clear accounts of the underlying concepts and theories involved in each study.

A major strength of *TSL* is its focus on the pedagogical effect of technology use on language learning. The pedagogical practices that are reported as having effect on language learning will enable language educators and researchers to understand what to emulate and what to avoid in their practice. For instance, McMeekin's study (chapter 3) on web-based readings discusses the factors to be considered when selecting authentic reading materials for JFL learners. Shintaku's study (chapter 10) on game-mediated learning demonstrates how to assist learners (especially beginners) in developing online literacy in TL. Akiyama's study (chapter 4) on vocabulary learning points out a possible contraindication of excessive multimodality for elementary-level learners, and Langton's study (chapter 2) of screencast feedback on writing stresses the importance of a careful analysis of the new technology before implementation. These pedagogical strategies can be used no matter what the current state of technological development may be.

One of the many implications reiterated in *TSL* is the vital role of pedagogically-mediated bridging activities for enhancing CALL, regardless of the learners' level of Japanese. For example, Shintaku's study (chapter 10) demonstrates how carefully designed supplemental materials allow the use of authentic materials even at the beginning level. To facilitate the learners' game use, Shintaku produced paper worksheets and PowerPoint files that contain linguistic and cultural information as well as various pre-game, in-game, and post-game activities. Moreover, she links out-of-class gameplay and in-class coursework by including activities that require utilization of new grammatical patterns learned in class.

Autonomous learning is another area of emphasis. For example, Yamada et al.'s (chapter 6) *rakugo* program, while removing peer pressure, "requires more discipline and engagement for autonomous learning" (167). The studies by McMeekin (chapter 3) and Yamazaki (chapter 9) provide extensive examples of how the learners' experience beyond the classroom can promote their autonomous development. Additionally, Takeuchi (chapter 12) urges teachers to "assist students in developing their class-external interests so that students can more fully participate in communities beyond the classroom, increasing the chances

that they will be successful in taking Japanese beyond the classroom" (332). As opportunities for independent informal language learning rapidly increase, not only teachers and researchers but also JFL learners will benefit from these examples and implications.

Another major strength of TSL is the attention to the existing gaps in the field of Japanese CALL. In the epilogue, Zimmerman and McMeekin point out a shortage of Japanese CALL studies that demonstrate "measurable empirical and rigorously investigated qualitative learning outcomes that can be replicated in other studies" (341). While some authors acknowledge the limited sample size of their studies, the editors remind the readers of the critical need to expand CALL studies beyond the current tendency to focus "on the description of newly-created technology, practical aspects of implementation and qualitative analysis of student/teacher-reported learning outcomes or evaluations" (340). The editors also suggest the following three areas for future Japanese CALL research: how CALL facilitates language learning as a social practice; how "more globalized understanding of the learner as a whole" (340) can be achieved in ecological CALL, where all components (e.g., learners, teachers, language, technology, etc.) are interconnected; and how mobile assisted language learning (MALL) can provide pedagogical benefits for language learning.

Indeed, studies involving social networking are absent in *TSL*, and it would have been very helpful for the readers to see examples of pedagogical use of various social media platforms. Nevertheless, it is noteworthy that *TSL* provides a much needed first step in the new directions toward ecological CALL by presenting relevant studies. For example, the learners' meta-cognitive awareness of their language production in social interactions are discussed in studies by Takamiya and Aida Niendorf (chapter 5), Yamazaki (chapter 9), and Zimmerman (chapter 11). Besides the studies on identity development by Takamiya and Aida Niendorf (chapter 5) and Takeuchi (chapter 12), the studies by Yonemoto et al. (chapter 8) and Yamazaki (chapter 9) show the examples of interconnectedness of learners and the surrounding world.

In the midst of the world-wide COVID-19 pandemic, which has resulted in the sudden shift to remote instruction, the vast majority of language teachers are faced with the challenge of employing technology in and out of their virtual classrooms in a short time span. Accordingly, *TSL* serves as a valuable collection of studies for many teachers regardless of their level of familiarity with CALL. Covering a wide range

of topics and areas with specific teaching/learning objectives, *TSL* is an excellent resource not only for educators but also researchers of Japanese and other less commonly taught languages, particularly those who are embarking on the development of an e-learning curriculum, seeking to update themselves on specific CALL topics, or interested in gaining a comprehensive overview of the critical issues and pedagogical benefits of CALL in and out of classroom.