

Guest Editorial: Contextualized Multimodal Language Learning

Meei-Ling Liaw^{1*} and Hsin-I Chen²

¹National Taichung University of Education, Taichung, Taiwan // ²National Taipei University of Technology, Taipei, Taiwan // meeilingliaw@gmail.com // hichen@mail.ntut.edu.tw

*Corresponding author

ABSTRACT: We live in an era of digitally accessible multimodality for various purposes and practices. Researchers and educators agree that multimodal literacies are essential by human beings to communicate, work, and thrive in the global world of the 21st century (Gee, 2003; Jewitt & Kress, 2003; New London Group, 1996). Along with this need, teachers need to be aware of “multimodal possibilities” (Lotherington & Jenson, 2011, p. 227) and their ramifications for teaching and learning. In second/foreign language education, multimodality has become even more central than ever. The interconnectedness among learning contexts, digital tools and materials, and learners is dynamic, multi-faceted, and, more importantly, awaits further exploration so language teachers and learners can transform the understandings into effective pedagogical practices. In this special issue, we present seven research efforts contributing to moving toward this goal. Under the overarching theme of contextualized multimodal language learning, the studies tackle issues in theoretical perspectives, methodological choices, educational contexts, and applications of innovative technological tools. Collectively, the studies revealed positive pedagogical values for language teachers of different educational contexts to enhance the learning experiences of different age groups by creatively taking advantage of multiple modes of knowing and meaning-making.

Keywords: Multimodal, Contextualized language learning, Digital tools, Language teaching

1. Introduction

All interactions are multimodal by nature (Norris, 2004). Humans use various modes to represent meanings and exchange ideas in communication. Multimodal language learning is coined upon the fact that humans integrate different modes, including audio, textual, gestural, visual, and spatial resources, to learn languages. In second and foreign language learning, skills in interpreting mediated modalities are therefore necessary for language learners, especially when communication takes place in cross-boundary and cross-cultural contexts. Digital technologies allow the combined use of texts, images, audio, videos, and multimedia, at the same time, further intensify these so-called “multimodal possibilities” (Lotherington & Jenson, 2011, p. 227). Although multimodality provides great potential for language learning when digital tools are involved, the multitude of possible multimodal compositions and their impacts on learning and interaction can easily overwhelm learners of an additional language (Abrams, 2016; Hampel & Hauck, 2006). With the affordances of digital tools, how multimodal affordances affect language learners’ meaning-making and language learning cognitively, affectively, and socio-culturally in technology-enhanced language learning (TELL) contexts thus deserve in-depth explorations.

As Bax (2003) foreseen the technology to progress towards normalization almost 20 years ago, technology nowadays has become invisible, embedded in everyday practice, and truly integrated into our lives. Language learners are engaged in technology-enhanced practices in formal schooling settings and digital wilds that go beyond contexts within educational systems (Sauro & Zourou, 2019). Language learning in digital contexts is rather open, dynamic, multi-faceted, and unpredictable. To have a comprehensive understanding of learners’ multimodal practice and performance in TELL activities, it is essential to contextualize learners’ multimodal experiences and examine the interrelationship between the multimodal potentialities of diverse learning settings, the mediated human activity within those settings, and the characteristics of the learners. The interconnectedness among contexts, TELL activities, and learners, are complex and multi-faceted. Thus, some questions arise: How does the multimodality feature affect language learning and use in different learning contexts? How to leverage technologies to foster learners’ multimodal language learning? How does introducing and integrating emerging technologies enable learners and teachers to be exposed to and/or create contextualized multimodal language learning experiences? The seven articles included in this special issue tackle these questions from different perspectives concerning different aspects of (de)contextualization of learning practices.

2. In this issue

To address the aforementioned questions, this special issue openly invited contributions from researchers engaging in scholarly endeavors focusing on multimodal uses and their effects on second and foreign language learning. The seven studies in this issue represent a whole array of such practices, ranging from various theoretical perspectives, methodological choices, and pedagogical contexts to applications of innovative technological tools. We hope the publication of this special issue will help promote reciprocal dialogues facilitating the expansions of our knowledge of the theoretical underpinnings and pedagogical practicalities of contextualized multimodal language learning (CMLL) in various digital spaces. In the following, we briefly describe each article in this issue:

The first article of this special issue, entitled “Using an AI-based object detection translation application for English vocabulary learning,” described a learning system featuring the AI-based ODT app developed by the researchers and its effects on elementary school students’ English vocabulary learning. The study found that the students who learned using the AI-based ODT app technology outperformed those who learned using the non-AI technique in terms of test scores. The researchers thus suggest that the AI-based ODT app could be useful as a teaching aid for young children.

The second article of this special issue, “Toward broadening participation: Investigation adolescents’ participation trajectories in a collaborative multimodal composing learning environment,” is a multiple case study investigating fifth to eighth graders’ participation trajectories when engaged in creating multimodal science fiction stories in small groups. The author’s analyses of multiple data sources revealed that the participants could use multiple modes to move across forms for interdisciplinary meaning-making and demonstrate their expertise as knowledge producers. Based on the findings, the research calls for further studies on how adolescents changed the form and degree of participation in integrated STEM learning environments.

The third article of this special issue, entitled “Effects of automatic speech recognition technology on Chinese EFL learners’ willingness to communicate,” examined the effects of automatic speech recognition (ASR) technology on university student’ willingness to communicate (WTC) in oral English. The quasi-experimental study involved 160 students using ASR technology with a flipped classroom approach. The findings showed that the target group had significantly higher post-intervention WTC scores with teacher and class than the control group students. However, the development trajectories of the students’ interactional features indicated that the use of the ASR-based technology might have only exerted a limited effect on the participants’ in-class peer interaction due to the short period of use of ASR and cultural factors. The researchers concluded that when applying technologies to designing activities for students’ WTC, cultural factors may need to be taken into consideration.

The fourth article of this special issue, entitled “Cluster analysis of Hong Kong students’ self-regulated learning (SRL) in contextualized multimodal language learning,” investigated the relationship between self-regulated learning and academic success. The researchers employed cluster analyses on the SRL behaviors of university students in Hong Kong as they worked on the content in an in-house developed multimodal learning package. Statistical procedures were used to explore the differences between clusters. Clusters of students who differed distinctly in their SRL behaviors were identified. The study also revealed that good mastery of SRL was strongly related to course outcomes in the contextualized language course possessing certain assessment components. Based on the findings, the researchers emphasize the importance of developing personalized instructions to motivate, stimulate, and foster SRL.

The fifth article of this special issue, “Exploring students’ experiences of using multimodal CMC tasks: A case with Instagram,” explored Indonesian university students’ learning experiences with multimodal CMC tasks through Instagram. Analyses of pre- and post-study surveys, journal reflections, and interviews revealed positive student responses to the learning approach. Students considered the CMC tasks fun and enjoyable, and the paralinguistic features afforded by Instagram helped them communicate more effectively.

The sixth article of this special issue, “Improving language learning activity design through identifying learning difficulties in a platform using educational robots and IoT-based tangible objects,” aimed at understanding the obstacles a group of elementary school students faced when taking part in learning activities supported by robots and IoT-based tangible objects. The researchers analyzed the video recordings of the participants’ learning process and identified categories of obstacles preventing learners from completing the tasks and the causes of the obstacles. Based on the findings, the researchers offered instructional guidelines for designing learning activities using the robot and IoT-based tangible objects.

The seventh article of this special, “Exploring multiliteracy of pre-service language teachers through spherical video-based virtual reality,” reported how a group of Taiwanese pre-service teachers’ multiliteracies developed through utilizing spherical video-based virtual reality (SVVR) tools to design teaching materials in an English as a Foreign Language (EFL) context. The researchers collected video recordings of the participants’ presentations about their final SVVR artifacts and semi-structured online interviews. The findings from video recording analyses revealed that, through developing SVVR teaching materials, the pre-service EFL teachers learned to compose multimodal lessons, concretized the intangible context for learning, and viewed the virtual space as a mode for teaching and learning. The interview results echoed such positive findings.

3. Conclusion

Context is a multi-faceted and multi-dimensional concept in language education. It covers different aspects, including educational settings, learning modes, sociocultural relations, and media modalities (Luckin, 2010). Language learners’ learning experiences can be perceived as transitions between settings defined by these aspects (Glahn & Gruber, 2020). Contextualized language learning implies that all language learning is situated in the context of real-world activities in which learners are encouraged to take active roles in meaning-making and problem-solving. Contextualized language learning places learners at the center of learning and engages learners in authentic contexts that are relevant to learners. Contextualized multimodal language learning further emphasizes the multimodality and multiplicity of communicative modes available in situated learning practices. With the accessibility and affordances of emerging technologies in the digital age, multimodality and CMLL have become even more central to communication and language learning and teaching (Dressman, 2020).

The studies in this special issue revealed positive pedagogical values for language teachers to enhance students’ learning experiences by creatively taking advantage of multiple modes of knowing and meaning-making. Such positive pedagogical effects occurred in elementary school classrooms as well as higher education institutions. CMLL can be deconceptualized from the explorations of the applications of different emerging technologies, including social media, virtual reality, Automatic Speech Recognition, robots, AI-based object detection translation; different constructs of learning including willingness to communicate, participatory, learner attitude, teacher attitude; different target language skills such as vocabulary acquisition, writing, and speaking; different research methodologies and inquiries including quasi-experimental study, qualitative case study, statistical analyses, exploratory, and mixed method; different learner population that includes young learners, adolescent learners, adult learners, and pre-service teachers. It is hoped that through the collection of seven studies, this special issue underpins the multiplicity, dynamics, and complexity of theoretical groundings and pedagogical implications of contextualized multimodal language learning for second/foreign language pedagogy.

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