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## Additional-Language Learning, Interdisciplinary Instruction, and Technology

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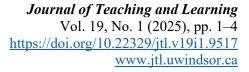
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**Editorial Comments** 

# Additional-Language Learning, Interdisciplinary Instruction, and Technology

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In this issue, we focus on additional-language learning, interdisciplinary instruction, and technology. We begin with two additional-language articles, including one on foreign language teachers' and students' attitudes toward oral-corrective feedback in traditional and technology-enhanced classes, and another on the relationship between English-medium instruction (EMI) effectiveness factors and students' EMI course satisfaction. Then, we present three interdisciplinary teaching articles, including one on fostering interdisciplinary cooperation and integration of technology in the teaching about socio-scientific issues, another on teaching literacy in an elementary-school classroom while incorporating Indigenous literacy scholarship, and a third on integrating political, social, and contemporary paradigms to teach biology. We then share two technology-oriented articles, including one on evaluating the readiness of students to use Virtual Reality technology to learn physics, and another describing gender differences regarding the level of emerging digital technologies' competencies of STEM pre-service teachers. Five additional articles are presented on the topics of intersectional pedagogy, student engagement, transition from pre-service to in-service teaching, educational leadership, and teaching in low-economic background schools. This issue includes two book reviews.

#### Additional-language learning

The issue of errors in additional-language learning is a central topic in applied linguistics and gives rise to ongoing and heated debate. Narges Sardabi, Amir Ghajarieh, Navid Atar Sharghi, and Leyla Rahmani conducted a mixed-methods study that investigated English as a Foreign Language teachers' and students' attitudes toward oral-corrective feedback (CF) in traditional and technology-enhanced classes. The results showed that explicit correction and metalinguistic feedback were rated much more positively by the majority of students, and that they were more accustomed to receiving oral feedback from the teacher in face-to-face classes than text- or audio-based feedback in technology-enhanced lessons. In addition, teachers' attitudes towards CF were categorized into four themes: students' affective responses to CF, reasons for providing CF, timing of CF, CF in face-to-face instruction, and technology-enhanced instruction. This research has implications for EFL teachers and materials developers.



English-medium instruction (EMI) is continuing to gain prominence in educational institutions worldwide. Chia-Wei Tang and Nguyen Thi Le, using a quantitative online survey method, explore the relationships between EMI effectiveness factors and students' EMI course satisfaction. They also examined how students' and teachers' background characteristics shape such relationships. Their research findings suggest that continuous professional development programs should be tailored to the unique needs of teachers working in diverse EMI contexts.

#### Interdisciplinary teaching

The intricate nature of socio-scientific issues has gained traction among researchers in recent years. Binesh Narayanan, Amruth Kumar, Dinesh Gunasekaran, Rajasree Vingayil, Krithika Maduvegadde, and Nirmala Alampady conducted a bibliometric analysis of educational research focused on socio-scientific issues. They examined articles included several themes: nature of science, climate-change decision-making, and education for sustainability. They also highlight the significance of fostering interdisciplinary cooperation and integration of technological aspects into future research.

Literacy is an essential component of any elementary-school classroom. Katie Brubacher and Jacqueline Filipek examined the new Alberta language-arts curriculum and discuss how its implementation aligns with the field of language and literacy, and in particular, Indigenous literacy scholarship. Findings include English-only processes, that feelings were sparse throughout the curriculum, an absence of critical literature, and inappropriate text selection. This paper shows the complexities and promise of being a non-Indigenous literacy scholar and thinking deeply about places of resonance and tension in literacy.

Since biology is not an isolated discipline, it is essential that we integrate political, social, and contemporary paradigms to achieve a full understanding of biological principles and their application in our natural world. Bello Malik Pelumi, Kareem Adeyinka Oluwaseun, and Bamidele Folorunsho Emmanuel, using a quasi-experimental research design, investigated the role of interactivity on the protégé effect, and explored how biology teachers can utilize it in their classrooms to reduce rote learning and facilitate long-term retention.

#### **Technology**

Virtual Reality (VR) technology is an upcoming innovative technology for visualizing abstract phenomena. Rahmat Rizal, Irwan Muhammad Ridwan, Herni Yuniarti Suhendi, and Ifa Rifatul Mahmudah, using a questionnaire-survey method, explored student readiness in using virtual reality for physics learning at an Indonesian university. They found that the two factors most influencing students' readiness are the availability of access to VR devices and basic technical skills in operating VR technology, leading to them to conclude that physics learning using VR can improve students' conceptual understanding, learning motivation, and interactive experiences.

Teacher-education programs play an essential role in preparing teacher candidates to teach students as they enter the 21<sup>st</sup> century's digital economy. Peter Abayomi Onanuga and Adewale Owodunni Saka conducted a descriptive survey research study in Nigeria that found that the level of emerging digital technologies' competencies of STEM pre-service teachers was low, regardless of their mode of entry into the university, and significant gender differences persist in the level of digital competencies between male and female teacher candidates. They recommend integrating technology, content, and pedagogy in the education of pre-service teachers.

#### Additional topics

Increasing awareness, education, and practice of intersectionality pedagogy is essential in primary, secondary, and higher-educational settings. Jenae Thompson and Walter Frazier conducted a Delphi study to better understand education counsellor and faculty personal and professional experiences with intersectionality theory, and how they used it as a pedagogical tool. Their research led to the development of a self-rated 23-item scale to measure intersectionality pedagogy that gives instructors a tool to self-evaluate and learn in order to broaden their utilization of cross-cultural exposure and experiences in the classroom. This instrument also creates opportunities for enhancing teacher preparation.

We have long known that promoting student engagement leads to an increase in student academic achievement and cognitive development. David Telles-Langdon and Neil Telles-Langdon conducted a mixed-methods study that analyzed the effects of using an elective grading (EG) approach to course assessment. They found that using an EG process improved students' self-efficacy and achievement emotions, while avoiding grade inflation and its associated negative effects. They recommend careful consideration of several factors, including system security and integrity, as well as the potential impact on student motivation and engagement.

The transition from university to high-school teaching is often challenging for pre-service teachers, with universities focusing on comprehensive theoretical knowledge while high-school teaching requiring practical application of this knowledge in diverse and dynamic classroom settings. Mai Phuc Thinh conducted a qualitative study of pre-service teachers in the Mekong Delta region of south-western Vietnam. Findings suggest that incorporating more experiential learning opportunities and structured mentorship into teacher-education programs can significantly improve pre-service teachers' preparedness for high school teaching.

While embracing collaborative leadership, data-driven decisions, professional development, community engagement, and strategic planning, effective educational leadership seeks to create management systems that improve teaching quality, student outcomes, and school environments. H. Lukman Asha, H. Hamengkubuwono, Murni Yanto, Eka Apriani, and Irfan Quowwiyul Aziz Alhajj, using a descriptive qualitive approach, identified practices that enhance educational outcomes and address issues like drug abuse and community engagement in the Binduriang sub-district of Rejang Lebang in the Bengkulu province in Indonesia.

Many scholars have found that the quality of teaching is essential for the student success, irrespective of their socio-economic backgrounds. Sam Ramaila, using a qualitative descriptive methodology, examined how teachers adapt and innovate their methods to effectively convey abstract life-sciences concepts in four South African township schools. Findings revealed the use of creative strategies, including designing hands-on activities, using analogies, and incorporating real-life examples to enhance learners' understanding. Collaboration among teachers and the use of community resources also emerged as key strategies for enriching the learning experience.

#### **Book reviews**

This issue includes two book reviews. Yesi Martha Afrillia and Sekar Purbarini Kawuryan reviewed the book, *Teaching Humanities and Social Sciences: Teaching Across Australia Eight Edition (2025)*, which emphasizes preparing students for the complexities of the twenty-first century through active, critical, and informed citizenship by placing a focus on blending theoretical knowledge with practical teaching strategies. Pasan Athapaththu reviewed the book, *Narrative* 

Inquiry in Language Teaching and Learning Research Second Edition (2024), which formulates, using a comprehensive and reader-friendly approach, a systematic methodological framework for narrative inquiry

It is my distinct pleasure to thank our contributing authors, reviewers, and editorial team members for their commitment to educational scholarship and its dissemination in *JTL*. It really does 'take a village.' For those who may be picking up *JTL* for the first time, consider joining the *JTL* family as an author or a reviewer. You are always welcome!

