

# Introduction to the Special Issue: Highlighting AERA's Online Teaching and Learning SIG 2025

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The American Educational Research Association (AERA) is an international society that “strives to advance knowledge about education, to encourage scholarly inquiry related to education, and to promote the use of research to improve education and serve the public good” ([About AERA](#)). AERA members consist of researchers, practitioners, and policymakers who belong to one or more of the 12 divisions and more than 150 special interest groups (SIGs). They come together annually to share educational research results and discuss implications for practice. The Online Teaching and Learning (OTL) SIG is a group of over 200 members who discuss and disseminate challenges and possibilities relating to online teaching and learning. SIG OTL and the Online Learning Consortium (OLC) have maintained a long-standing collaboration to advance online, blended, and digital learning theory and practice. The AERA annual meeting in 2025 was held in Denver, Colorado. The theme of the meeting was “[Research, Remedy, and Repair: Toward Just Education Renewal.](#)”

Since 2016, the *Online Learning Journal* (OLJ), the official journal of the OLC, has published an annual special issue showcasing research from SIG OTL members. This year's collection of eleven articles is grouped around four dimensions of online education: measuring online learning, examining the social dimensions of online learning, addressing challenges of engagement and completion, and developing online teaching capacity.

Collectively, the articles in this special issue illustrate a diversity of contemporary scholarship in online education and its engagement with foundational questions about how we measure, design, and support meaningful learning experiences. From psychometric validation of assessment instruments to innovative approaches for developing teacher capacity and student engagement, these studies represent an ongoing effort to link research on design, context, and evidence in meaningful ways. The research articles are organized here to move from how we measure online learning, to how we relate within it, to how we engage and persist, and finally to how we teach and transform practice. The narrative cadence reflects a progression from epistemological questions of evidence and validity to the

relational, operational, and developmental dimensions that define contemporary research on online teaching and learning.

The first three articles focus on the development and validation of measurement instruments to assess various dimensions of the online learning environment. These studies demonstrate the importance of rigorous psychometric evaluation across diverse contexts—from assessing learner characteristics and self-regulatory behaviors to evaluating instructional practices and pedagogical tools. By establishing valid and reliable measures, researchers and practitioners may consider using these instruments to understand and improve online learning experiences across different populations and educational settings.

Na, Jeong, Clarke-Midura, and van Dijk (2025) examine the cross-cultural validity of the Online Self-Regulated Learning Questionnaire (OSLQ) with 571 Korean college students. Using both confirmatory factor analysis and item factor analysis, they found support for a seven-factor model. They found that the OSLQ instrument demonstrates strong psychometric properties for assessing students with lower self-regulated learning abilities, and that students with moderate to low ability levels tended to overestimate their skills.

Byrne, Mondrey, Folami, Moeyaert, and Licata-Hoang (2025) expand upon trauma-informed pedagogy in online teaching by developing and validating a student-facing survey instrument. Drawing on data from 129 undergraduate students at a Historically Black University, they present a valid and reliable measure that faculty and instructional designers can use to understand and implement trauma-informed practices in asynchronous online courses.

Agrati, Perla, Vinci, and Beri (2025) investigate pre-service teachers' attitudes toward and use of online assessment tools, examining how prior teaching experience influences their engagement with digital assessment technologies. Their study of 3,780 Italian pre-service teachers revealed that while experience has little correlation with frequency of use of digital technologies, it significantly enhances critical evaluation of tool selection and assessment utility, suggesting that teacher education programs should differentiate training based on experience levels.

The next three articles examine the multifaceted nature of social interaction and social presence in online learning environments. Taken together, these studies reinforce that social presence is not a monolithic construct but rather manifests differently depending on learner characteristics, stakeholder perspectives, and instructional modalities. By investigating social dynamics from the perspectives of parents, non-traditional graduate students, and language learners, these researchers' work highlights the complex interplay among social connection, learning outcomes, and course design.

Song, Koehler, Richardson, and Cheng (2025) employed a mixed-methods approach to investigate Chinese parents' perceptions of social presence in their young children's online learning experiences. Their study of 53 parents revealed significant positive relationships between perceived social presence and both perceived learning and satisfaction with instructors, with social presence accounting for 26.7% of the variance in perceived learning. Their qualitative findings further support the importance of considering culture in the interplay between social and teaching presence.

Mercado and Shin (2025) examine social presence through a case study of 15 non-traditional graduate students participating in collaborative activities within a practice-oriented

online course. Their analysis revealed that while self-regulation and team leadership enhanced group dynamics and accountability, students faced challenges with task complexity and time management. Their study reinforces the importance of instructor support in addressing knowledge gaps and of team leadership in fostering purposeful interactions.

Jiang, Xie, and Stein (2025) investigated how basic psychological need satisfaction (e.g., autonomy, competence, and relatedness) related to students' willingness to communicate in online language learning across synchronous and asynchronous modes. Using experience sampling methodology with 104 students, they found that while competence and relatedness needs were associated with willingness to communicate in both modes, autonomy need satisfaction mattered only in asynchronous settings, and the relationship between willingness to communicate and communication quality varied by instructional format. Their findings suggest that online instructors might consider emphasizing choice, self-pacing, and independent reflection when designing asynchronous online learning activities.

Then the next two articles investigate persistent challenges in online education: sustaining learner engagement and promoting course completion. Both studies move beyond documenting noncompletion rates to testing interventions and examining behavioral patterns that influence persistence across diverse learner populations. These researchers reveal how accountability structures, self-regulated learning, cultural contexts, and course design features interact to shape engagement and completion outcomes in large-scale online learning environments.

Li, Kizilcec, Cho, and Krasny (2025) systematically investigated accountability interventions in a MOOC, randomly assigning participants to discuss their progress with someone within the course, outside the course, or in a control condition. While none of the interventions significantly affected overall discussion participation or completion rates, culturally contingent patterns emerged. For instance, U.S. participants in the accountability-outside condition demonstrated higher engagement and completion rates compared to those in the accountability-inside condition. Their results reveal important theoretical questions about how accountability mechanisms operate across different cultural contexts.

Hsiao, Chang, Chen, and Tung (2025) employed a mixed-methods approach to examine how 115 Taiwanese high school students engaged with bilingual scaffolded MOOCs over eight weeks and to investigate the relationships among attitudes toward English, self-regulated learning motivation, online behaviors, and course completion. Their results revealed that students who perceived English as having practical value demonstrated higher self-regulated learning motivation and satisfaction, and that discussion participation significantly predicted course completion. These findings suggest that MOOC designers should prioritize accessible materials, interactive activities, and explicit instructor guidance to support diverse learners.

The last three articles center around the need to support and develop educators' capacity for effective online instruction by examining motivation, professional development, and pedagogical innovation across K-12 and higher education contexts. These studies reemphasize that successful online teaching requires more than technical proficiency; it demands attention to teachers' motivational profiles, confidence levels, as well as the creation of supportive, culturally responsive spaces for both educators and learners. By exploring differentiated support systems, evidence-based professional development outcomes, and

transformative methodologies rooted in cultural practices, these researchers offer practical and theoretical insights for building sustainable online teaching capacity.

Morrison, Smart, Wiles, and Bennett (2025) investigated K-12 teachers' motivation for online teaching using data from 62 teachers in the Southeastern United States. Their analysis revealed significant differences in motivation and self-efficacy across content areas (STEM versus non-STEM), grade bands (elementary, middle, and secondary), and gender, with teachers reporting a moderate overall motivation level of 2.66 on a 4-point scale. These findings reaffirm the importance of tailoring professional development and support for online teaching to teachers' disciplinary contexts, grade levels, and identities rather than assuming a one-size-fits-all approach.

Hill, Hart, Baker, Xiu, and colleagues (2025) examined the perceived effects of structured professional development programs on 82 community college faculty members' online teaching practices and confidence. Following participation in programs focused on core learning theories and practical engagement strategies, the majority of faculty members reported adopting new techniques such as creating welcoming environments and increasing student-student interaction, while also demonstrating increased confidence in both technical skills (e.g., building courses, creating materials) and soft skills (e.g., developing equitable online environments). Their results reinforce the idea that praxis-based professional development can directly translate into more inclusive, engaging, and confident online teaching.

Dathe, Brassington, and Rice (2025) employed a self-study to explore *plática*—a Chicana feminist conversational practice—as a means of creating counterspaces for healing and relational engagement in online teacher education. Through their reflections on teaching during and beyond the pandemic, they illustrated how *plática* methodology can intentionally cultivate intimate spaces that address emotional labor, institutional hierarchies, and pedagogical connections. Their findings offer a transformative framework applicable across various fields, including online teaching and beyond.

Taken together, the eleven studies featured in this issue reaffirm that culturally responsive design, multidimensional engagement, intentional support, and methodological rigor remain essential to advancing both the scholarship and practice of online education. As online and blended learning continue to play an increasingly central role in education at all levels, the insights from these SIG OTL scholars provide both theoretical foundations and practical guidance for creating more effective, inclusive, and transformative online learning environments that serve diverse populations and contexts.

Our gratitude goes out to the OLJ editor-in-chief, Peter Shea, as well as the AERA OTL SIG executive committee and all the authors. We hope you'll find these articles as enlightening and informative as we did.

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[Table of Contents](#)