Bridging Geographic and Academic Distances: Evaluation of a Web-Conference Training for Linguistics Graduate Students Globally

Musa Saadi Al-khaf

King Saudi University – Saudi Arabia,
Email: saad.khaf.musa@yahoo.com.

*Corresponding Author Email:
saad.khaf.musa@yahoo.com

Received: July 13, 2025
Revised: July 20, 2025
Accepted: August 27, 2025

Abstract

This case study research evaluated a series of training web-conferencing initiatives designed to address the academic challenges and geographic isolation faced by Saudi Arabian linguistics graduate students spread across multiple countries (Australia, the United Kingdom, the United States, and Saudi Arabia). Organized by the Saudi Linguistics Society (SAL)—a volunteer-initiated and managed student organization—the program aimed to: (1) enhance electronic literature search skills, (2) introduce current trends in linguistics research, and (3) facilitate networking with international experts. With a limited budget, the study utilized various free online conferencing platforms (such as Skype and WebEx) and collected data through participant surveys and technical log analysis. Findings indicate that despite technical challenges such as unstable connection quality and a lack of initial technical support, participants unanimously rated the experience as highly beneficial. Key benefits identified included significant development of research competencies, creation of constructive collaborative learning spaces, and cost and time efficiencies. The study concludes that web-conferencing is an effective and feasible synchronous training tool, particularly in resource-constrained contexts. As a recommendation, this study suggests the importance of adequate technical support, integration of asynchronous activities for immersion, and advocacy for institutional and financial support from the government and universities to scale and synergize this kind of collaborative learning model in the higher education environment of Saudi Arabia and other developing countries.

Keyword: Web-Conferencing, Synchronous Online Training, Academic Digital Literacy, Graduate Students, International Collaborative Learning, Saudi Arabian Higher Education.

1. Introduction

Rapid advances in information and communication technology have transformed the higher education landscape, enabling innovative, collaborative, and geographically seamless modes of learning and training. Among these innovations, webinars and interactive web conferences have emerged as highly effective tools for sharing knowledge (Basmanova et al., 2020; Zoumenou et al., 2015), facilitating synchronous communication (Kolås et al., 2015; Petrova et al., 2017), and building professional networks among participants from across the globe (Aravamuthan et al., 2021). Empirical evidence from various contexts such as teacher training in Turkey, international research collaborations, and professional development in virtual schools has consistently demonstrated that these models not only overcome distance and time constraints but also offer cost-effective solutions and provide dynamic, multimedia learning environments (Garlinska et al., 2023; Momani et al., 2023; Munna et al., 2024).

While the potential of web conferences has been widely recognized globally, their utilization in Saudi Arabia particularly to support graduate students remains very limited. Many students, particularly in linguistics, applied linguistics, and Teaching English as a Foreign Language (TEFL), face significant challenges in developing their theses. These challenges include selecting. relevant research topics, limited access to up-to-date literature, a lack of understanding of contemporary research trends, and limited opportunities for direct interaction with international experts. Support from academic advisors is often inadequate when it comes to training in digital literacy skills and navigating electronic databases. Consequently, there is an urgent need for interventions that can bridge this knowledge and networking gap.

In response to these challenges, the Saudi Linguistics Society (SAL) an organization founded by and for Saudi linguistics students studying abroad—initiated a series of training web conferences focused on strengthening electronic search skills and understanding research methodology. This independently run, volunteer-led initiative aims to create a virtual learning space that connects students with experts while simultaneously building a community of practice among globally dispersed peers. This program is a compelling case study because it is implemented on a minimal budget, relies on free online conferencing software, and is driven entirely by the students' collective spirit of mutual support.

Based on this background, this study aims to: (1) describe the steps in preparing and implementing a training web-conference in the context of a student organization with limited resources; (2) identify the benefits and technical and non-technical constraints encountered; and (3) formulate practical recommendations for organizing an effective web-conference. Significantly, the findings of this study are expected to provide empirical guidance for educators, training program designers,

and policymakers in Saudi Arabia especially the Ministry of Higher Education on the potential of implementing and scaling a collaborative synchronous training model to enhance student research capacity. In addition, this study also contributes to the international literature on online learning by highlighting perspectives from the context of a developing country and a student-driven organization.

2. The Art of Research

Web conferencing, webinars, and online training have been the focus of extensive research in the education and learning technology literature (Ebner & Gegenfurtner, 2019; Fleming, 2021; Gegenfurtner et al., 2020). Previous studies have generally confirmed the effectiveness and versatility of these tools in various contexts.

2.1. Utilization in Higher Education and Professional Training
Empirical studies demonstrate the successful adoption of web conferencing at various levels. In higher education, systems such as streaming media for organic chemistry courses (Crucho et al., 2020; Sunasee, 2020) have been shown to increase the accessibility of materials and are highly valued by students. In the context of teacher training, these platforms are effective in providing professional development, particularly for mid-career teachers who require flexibility (Booth et al., 2021; Lindquist, 2024). In the business world, online interactive training for job seekers is highly rated for interview preparation (Rynes & Gerhart, 1993), while staff at nonprofit organizations have expressed positive acceptance of the convenience and benefits of such training (Hill et al, 2021). These findings underscore the role of web conferencing as an adaptable solution for competency development across a range of sectors.

2.2. Effectiveness in Teacher Development and Collaborative Learning
The literature also highlights the impact of web conferencing in creating a dynamic pedagogical environment. For both pre-service and in-service teachers, this activity helps overcome location dependence, conserve resources, and break down professional isolation particularly in rural areas (Maher & Prescott., 2017; Salazar et al, 2010). Furthermore, web conferencing facilitates a constructivist and student-centered learning approach, where participants engage in a collaborative process of knowledge construction (Alam, 2023; Russell et al., 2008). Its integration with case-based teaching has also been reported to foster quality discourse and enhance critical thinking skills (Szabo & Schwartz, 2011).

2.3. Applications for Diverse Populations and Special Needs
The scope of web conferencing utilization extends beyond formal adult education. A study by Chipps et al., (2022) showed that an online-delivered stress prevention program for adolescents can result in increased knowledge and be an economical complement to conventional methods. Furthermore, virtual schools such as the Louisiana Virtual School are making extensive use of webinars to address the challenges of distance learning and build the capacity of instructors and administrators (Molnar, 2015; Willse, 2024). This demonstrates the platform's flexibility in serving a variety of learning objectives, from mental health to the operationalization of large-scale educational systems.

2.4. Identifying Implementation Constraints and Challenges
Despite their widely recognized benefits, the literature also candidly documents barriers to implementing web conferences. These barriers include technical issues such as connection and audio quality (Hardman et al., 1998), lack of opportunities for continued practice and feedback (Shannon et al., 2012), and logistical challenges such as time zone adjustments and significant organizational burdens on organizers (Anderson et al., 2018; Pedaste & Kasemets, 2021). These studies provide a critical framework for understanding the realities behind successful online training implementation.

2.5. Connection to the Context of This Research
Overall, the existing body of literature has established a strong theoretical foundation on the potential and challenges of web conferencing. However, the majority of studies focus on established institutional contexts with relatively adequate resource support. This research seeks to fill this gap by investigating the implementation of web conferencing in a unique context: a training initiative independently initiated, managed, and run by graduate students for their own peers, with a very limited budget and globally dispersed participants. In doing so, this study not only confirms previous findings regarding the benefits and constraints but also provides new insights into the feasibility and dynamics of a "student-led, student-oriented" model in higher education, particularly in settings like Saudi Arabia where formal models may not be readily available or affordable.

3. Method

This research uses a qualitative descriptive case study approach to in-depth evaluate a series of training web conferences organized by the Saudi Linguistics Society (SAL). This design was chosen because it allows for a holistic exploration of the phenomenon in its natural context—a student-driven initiative—and to gain a rich understanding of the processes, benefits, and challenges experienced by stakeholders.

3.1. Participants and Context

The research subjects consisted of 20 Saudi Arabian postgraduate students (Master's and PhD) pursuing linguistics, applied linguistics, or TEFL studies in four countries: Australia, the United Kingdom, the United States, and Saudi Arabia. All participants were active members of SAL and participated in the web conference voluntarily, outside of formal curricular obligations. This non-random selection and relatively small number of participants limits the generalizability of the findings, but provides depth and contextual relevance for understanding the experiences of this specific group. The primary organizer (coordinator), who is also a doctoral student in Australia, and several invited expert speakers also served as data sources for this study.

3.2. Intervention Procedures and Implementation

The web conference follows a series of stages, fully managed by the SAL volunteer team. First, a training theme (e.g., "Electronic Search Skills") is determined based on the most pressing research needs among members. Second, the coordinator contacts and invites experts (both lecturers and researchers) to present. Third, digital posters are created and announcements are disseminated through the SAL website and social media. Fourth, a schedule is established, taking into account different time zones. During the course of the conference, several free web conference platforms (such as PalTalk, Skype, How-to Geek, and WebEx) are tested to find the most stable. Sessions last 1.5 to 3 hours, with dedicated time allocated for Q&A and interactive exercises.

3.3. Data Collection Technique

Data was collected from three main sources to ensure triangulation and depth of analysis, namely: One) Post-Session Survey: Conducted at the end of each web-conference to explore participant perceptions regarding benefits, shortcomings, and suggestions for improvement. Two) Digital Archive: Includes all recordings of conversations (chat logs) during the session, which contain questions, comments, and interactions between participants. Three) Field Notes and Technical Logs: The researcher (who also served as one of the presenters) and the coordinator created structured documentation of the course of each session, including details of technical issues that arose and how they were addressed.

3.4. Data analysis

Qualitative data from these three sources were analyzed thematically. The analysis process began with repeated in-depth readings of the survey transcripts and notes. Next, coding was performed to identify emerging patterns, such as themes related to "benefits of access to experts," "technical constraints," "competency enhancement," and "logistical challenges." These themes were then grouped, reviewed, and synthesized to develop a comprehensive understanding of the effectiveness and dynamics of web conferencing in the context of this study. This analysis emphasized in-depth interpretation of participants' experiences rather than statistical generalizations.

4. Result

This study uncovered two key dimensions of web-based training implementation: the benefits participants received and the challenges and shortcomings encountered during the implementation process. Overall, despite various technical and logistical challenges, participant responses demonstrated a very positive assessment of the value and impact of this activity.

4.1. Benefits of Web-Conference Training

Based on survey analysis and interaction notes, all participants (100%) stated that the web conference was very useful and they would be willing to attend similar sessions in the future. The main benefits reported included: (1) access to international experts, which enabled direct learning from leading linguists in various countries; (2) enhanced research competencies, particularly in electronic literature search skills, use of academic databases, and understanding of current research trends; (3) reduced academic and geographic isolation, as participants could connect with colleagues from various universities without the constraints of distance and time; and (4) cost and time efficiency, as the event could be attended from home without travel or accommodation costs. Furthermore, the interactive and collaborative learning environment supported by screen sharing, live Q&A sessions, and archived recordings enriched the learning experience and facilitated the collaborative construction of knowledge.
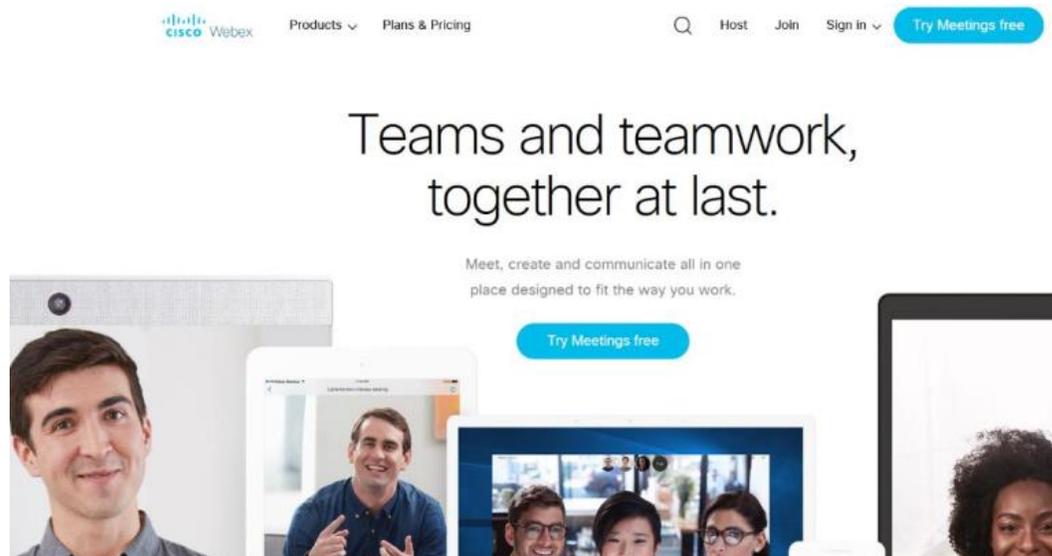
Figure 1. WebEx Web Conferencing Software Home Page

4.2 Deficiencies and Obstacles Faced

On the other hand, the study also identified a number of significant challenges. Technical issues were the most common, including poor sound quality, unstable internet connections, difficulties with screen sharing (desktop sharing), and sudden disconnections on some of the free platforms tested. Limited virtual space capacity limited the number of participants to around 20 per session, resulting in many potential participants being delayed or waiting on a waiting list. Time zone differences between the presenter (based in Saudi Arabia) and the participants (spread across Australia, the UK, and the US) also made it difficult to find a schedule that worked for all parties. From an organizational perspective, a lack of financial support hindered the use of more stable paid platforms, while the additional workload of the coordinator who was also a doctoral student revealed the vulnerability of the volunteer model to maintaining sustainability. These challenges confirm previous studies on the challenges of online training, while highlighting the added complexity of self-driven initiatives driven by students with limited resources.

5. Discussion

This study reveals that student-organized, self-hosted training web conferences can be an effective and feasible solution to address geographic and academic isolation while simultaneously building graduate students' research capacity. These findings align with the literature confirming the role of webinars as a cost-effective and accessible training tool (Lieser et al., 2018). However, this study furthers understanding by demonstrating that effectiveness is not solely dependent on formal institutional support; bottom-up, community-based (SAL) initiatives can also achieve significant learning outcomes. This relative success challenges the narrative that high-quality online training always requires significant infrastructure and funding, while highlighting the potential for student agency and leadership in creating their own learning ecosystems.

However, consistent technical challenges such as sound quality, connection stability, and interface complexity confirm the findings of previous studies (Anderson et al., 2018; Hardman et al., 1998; Pedaste & Kasemets, 2021). These obstacles are not merely minor annoyances, but critical barriers that can reduce engagement, increase cognitive load, and potentially lead to participant dropout.

SAL's experience in overcoming these challenges by trialing various free platforms and ultimately relying on technical support from fellow students highlights the need for technical readiness and contingency plans, even for small-scale initiatives. This is an important lesson for institutions seeking to adopt a similar model: investing in adequate technical support is as important as investing in content.

Pedagogically, the web conference successfully created a constructivist and collaborative learning environment, where knowledge was built through direct interaction with experts and discussions among students (consistent with Yücel & Usluel., 2016). Focusing on participants' specific needs (such as literature searches for a thesis) made learning relevant and student-centered. However, the time constraints of synchronous sessions reveal weaknesses also identified by Doo (2006) the lack of

opportunities for independent practice and ongoing feedback. This suggests that blended learning models that integrate asynchronous discussion forums (Hew & Cheung, 2003) or post-session deepening assignments would be much more robust in ensuring skill retention and application.

The most fundamental challenges are organizational and financial. As a volunteer organization, SAL faces classic obstacles: dependence on individual time and energy, difficulties with long-term planning, and limited access to more stable paid platforms. This reflects the dilemmas in the literature regarding the sustainability of online training initiatives (Kasch et al, 2023). Therefore, while this "from-to-by" model for students is inspiring, collaboration with formal institutions (such as universities or ministries) is key to scaling and sustainability. Institutions can provide support without taking over control, for example by providing platform licenses, recognizing these activities as part of professional development, or providing small grants for operations.

Finally, these findings have broad policy implications, particularly for the Saudi Arabian context and developing countries with large international student populations. The Ministry of Higher Education and universities can leverage this model as a low-cost strategy to support their students abroad while strengthening international research networks. Recommendations for extension to multiple disciplines and the development of integrated virtual resource centers are logical next steps. Thus, this research not only documents a successful case study, but also paves the way for new synergies between grassroots initiatives and top-down policies in advancing inclusive and globally connected postgraduate education.

6. Conclusion

This study demonstrates that student-initiated and self-managed training web conferences such as those conducted by the Saudi Linguistics Society (SAL) are an effective, feasible, and strategically valuable model for addressing the challenges of academic and geographic isolation faced by linguistics graduate students globally. By utilizing a free online platform, this initiative successfully established a synchronous learning space that not only enhanced research competencies particularly electronic literature search skills but also expanded professional networks with international experts and fostered a sense of community among peers. Despite technical challenges and resource limitations, the positive response from participants confirmed that the model's primary value lies in its content relevance, accessibility, and spirit of peer-to-peer collaboration. Thus, web conferences are not simply a substitute for face-to-face meetings, but rather a transformative solution that empowers students to actively shape their own learning paths and academic support.

However, the study's findings should be interpreted with several limitations in mind. First, the case study design, with its relatively small (20 participants) and homogeneous sample all from linguistics and members of SAL limits the generalizability of the findings to a broader population of graduate students or other disciplines. Second, the lack of a control group or pre-test measurement of competency makes claims of "increased competence" based more on participants' self-reported perceptions than rigorous quantitative evidence. Third, the data collected relied heavily on surveys and participant observation, which potentially contain subjective bias. Finally, this study focused on implementation within one specific organization; the internal dynamics, motivations, and capabilities of SAL administrators may not be fully representative of other student organizations, so the "success" factors here may not be fully replicable without similar enabling conditions.

Based on these findings and limitations, this study has several important implications for practice, policy, and further research. Practically, for online training providers, this study emphasizes the need for: (1) technical testing and platform contingency plans, (2) interactive session designs focused on the specific needs of participants, and (3) integration with asynchronous activities to deepen learning. For education policymakers in Saudi Arabia and developing countries, these findings support the need to allocate structured financial and technical support—such as providing stable platform licenses and technical training—to adopt and scale such collaborative models, both nationally and internationally. Scientifically, this study opens up opportunities for further research with more robust methodologies, such as quasi-experiments with larger and more diverse samples, or longitudinal research to measure the long-term impact of web-conferencing participation on student research productivity and quality. Thus, this study offers not only evidence of the success of this innovative model but also a roadmap for its future development.

References

1. Alam, M. A. (2023). From teacher-centered to student-centered learning: The role of constructivism and connectivism in pedagogical transformation. Journal of Education, 11(2), 154-167.
2. Anderson Jr, E. G., Chandrasekaran, A., Davis-Blake, A., & Parker, G. G. (2018). Managing distributed product development projects: Integration strategies for time-zone and language barriers. Information Systems Research, 29(1), 42-69.
3. Aravamuthan, B., Landsness, E. C., & Silbermann, E. (2021). ANA Webinars: implementation of a conference-based virtual networking event. Annals of Clinical and Translational Neurology, 8(2), 525-528.

4. Basmanova, A. A., Grunina, Y. A., & Kargovskaya, E. A. (2020). Digital Learning: Students' Assessment of Webinars and Web Conferences as a Tool for Acquiring Knowledge and Skills. Universal Journal of Educational Research, 8(12), 6960-6966.

5. Booth, J., Coldwell, M., Müller, L. M., Perry, E., & Zuccollo, J. (2021). Mid-career teachers: A mixed methods scoping study of professional development, career progression and retention. Education Sciences, 11(6), 299.

6. Chipps, W., Petzold, A., Adams, C., & Jackson, K. (2022). Online therapeutic methods: A systematic review. Current Psychology, 41(5), 2835-2847.

7. Crucho, C. I., Avó, J., Diniz, A. M., & Gomes, M. J. (2020). Challenges in teaching organic chemistry remotely. Journal of Chemical Education, 97(9), 3211-3216.

8. Doo, M. (2006). A problem in online interpersonal skills training: Do learners practice skills? Open Learning, 21(3), 263-272.

9. Ebner, C., & Gegenfurtner, A. (2019, September). Learning and satisfaction in webinar, online, and face-to-face instruction: a meta-analysis. In Frontiers in education (Vol. 4, p. 92). Frontiers Media SA.

10. Fleming, J. (2021). Best Practices for Web-Conferencing and Webinars: Exploring the Efficacy of Web Technology (Webinars) by Learner and School Characteristics. In Curriculum Development and Online Instruction for the 21st Century (pp. 91-113). IGI Global.

11. Garlinska, M., Osial, M., Proniewska, K., & Pregowska, A. (2023). The influence of emerging technologies on distance education. Electronics, 12(7), 1550.

12. Gegenfurtner, A., Zitt, A., & Ebner, C. (2020). Evaluating webinar-based training: a mixed methods study of trainee reactions toward digital web conferencing. International Journal of Training and Development, 24(1), 5-21.

13. Hardman, V., Sasse, M. A., & Kouvelas, I. (1998). Successful multiparty audio communication over the Internet. Communications of the ACM, 41(5), 74-80.

14. Hew, K. F., & Cheung, W. S. (2003). Models to evaluate online learning communities of asynchronous discussion forums. Australasian Journal of Educational Technology, 19(2).

15. Hill, T. G., Langley, J. E., Kervin, E. K., Pesut, B., Duggleby, W., & Warner, G. (2021). An integrative review on the feasibility and acceptability of delivering an online training and mentoring module to volunteers working in community organizations. Frontiers in Digital Health, 3, 688982.

16. Kasch, J., Bootsma, M., Schutjens, V., van Dam, F., Kirkels, A., Prins, F., & Rebel, K. (2023). Experiences and perspectives regarding challenge-based learning in online sustainability education. Emerald Open Research, 1(3).

17. Kolås, L., Nordseth, H., & Yri, J. S. (2015). Active Students in Webinars. International Association for Development of the Information Society.

18. Lieser, P., Taff, S. D., & Murphy-Hagan, A. (2018). The webinar integration tool: A framework for promoting active learning in blended environments. Journal of Interactive Media in Education, 2018(1), 7-7.

19. Lindquist, E. (2024). Teaching public policy to mid-career MPA students: Recalibrating the online balance. In Handbook of teaching public policy (pp. 64-74). Edward Elgar Publishing.

20. Maher, D., & Prescott, A. (2017). Professional development for rural and remote teachers using video conferencing. Asia-Pacific Journal of Teacher Education, 45(5), 520-538.

21. Molnar, A. (2015). Virtual Schools in the US 2015: Politics, Performance, Policy, and Research Evidence. National Education Policy Center.

22. Momani, F., Hatamleh, A. A., Hamzah, W. M. A. F. W., Jusoh, J. A., Zakaria, M. D., & Das, S. (2023, October). E-Learning: A Successful Learning Environment. In 2023 International Conference on Computer Science and Emerging Technologies (CSET) (pp. 1-7). IEEE.

23. Munna, M. S. H., Hossain, M. R., & Saylo, K. R. (2024). Digital education revolution: Evaluating LMS-based learning and traditional approaches. Journal of Innovative Technology Convergence, 6(2).

24. Pedaste, M., & Kasemets, M. (2021). Challenges in organizing online conferences. Educational Technology & Society, 24(1), 92-104.

25. Petrova, N. N., Sidorenko, L. P., Absalyamova, S. G., & Sakhapov, R. L. (2017, September). Efficiency and prospects of webinars as a method of interactive communication in the humanities. In Online Engineering & Internet of Things: Proceedings of the 14th International Conference on Remote Engineering and Virtual Instrumentation REV 2017, held 15-17 March 2017, Columbia University, New York, USA (pp. 940-948). Cham: Springer International Publishing.

26. Russell, C. K., Burchum, J. R., Likes, W. M., Jacob, S., Graff, J. C., Driscoll, C., ... & Cowan, P. (2008). WebQuests: creating engaging, student-centered, constructivist learning activities. CIN: Computers, Informatics, Nursing, 26(2), 78-87.

27. Rynes, S. L., & Gerhart, B. (1993). Recruiter perceptions of applicant fit: Implications for individual career preparation and job search behavior. Journal of Vocational behavior, 43(3), 310-327.

28. Salazar, D., Aguirre-Munoz, Z., Fox, K., & Nuanez-Lucas, L. (2010). On-line professional learning communities: Increasing teacher learning and productivity in isolated rural communities. Journal of Systemics, Cybernetics and Informatics, 8(4), 1-7.

29. Shannon, S., Francis, R., & Torpey, G. (2012, November). Barriers to adoption of blended learning and online feedback and assessment by sessional staff. In Proceedings of The 46th Annual Conference of the Architectual Science Association (ANZAcA), Gold Coast, Australia: Griffith University (pp. 14-16).

30. Sunasee, R. (2020). Challenges of teaching organic chemistry during COVID-19 pandemic at a primarily undergraduate institution. Journal of Chemical Education, 97(9), 3176-3181.

31. Szabo, Z., & Schwartz, J. (2011). Learning methods for teacher education: The use of online discussions to improve critical thinking. Technology, Pedagogy and Education, 20(1), 79-94.

32. Willse, C. (2024). State education agency governance, virtual learning, and student privacy: Lessons from the COVID-19 pandemic. Educational Policy, 38(1), 186-217.

33. Yücel, Ü. A., & Usluel, Y. K. (2016). Knowledge building and the quantity, content and quality of the interaction and participation of students in an online collaborative learning environment. Computers & Education, 97, 31-48.

34. Zoumenou, V., Sigman-Grant, M., Coleman, G., Malekian, F., Zee, J. M., Fountain, B. J., & Marsh, A. (2015). Identifying best practices for an interactive webinar. Journal of Family & Consumer Sciences, 107(2), 62-69.