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TEACHERS' FORUM

AI in the L2 Classroom: Serving Language Educators through Professional Development

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The spread of generative AI has been praised and criticized for engendering new possibilities and limitations for language education. While educators have praised AI's ability to serve as a conversation partner, generate novel ideas for lesson plans, and offer tailored feedback, many instructors and scholars have voiced concerns related to AI's biases and its impact on student learning and academic integrity. Responding to a need for further training and dialogue about AI, members of the Davis Language Center organized a professional development event in which instructors, students, and instructional technologists shared their perspectives and strategies for AI-mediated language education. The event also included guided practice on using these tools for pedagogical purposes, including writing effective prompts, interacting with AI tools, and engaging in an iterative, reflective process. Through our planning process, we discovered that balancing scheduled asynchronous tasks with focused synchronous check-ins was crucial for ensuring accountability, clear communication, and timely progress, ultimately helping us coordinate and achieve our event planning goals effectively. We report on insights from organizing and participating in the event, highlighting several advantages of using AI in language education, critical issues, and questions for further inquiry. Leveraging lessons learned at this event, we offer suggestions for coordinating trainings about AI-enhanced language education.

INTRODUCTION

Generative artificial intelligence (AI) is a technological innovation situated at the forefront of current research and discussions around second language (L2) teaching. AI is a computer technology designed to simulate human intelligence and communication, utilizing natural language processing (NLP) to enable machines to interact with human language (Son et al., 2023). Given the various characteristics that interactive AI tools offer to support language learning, such as knowledge of several languages and availability for one-on-one interaction, AI tools such as ChatGPT, Claude, and CoPilot can be leveraged for conversation, interactive

learning activities, and tutoring. For these reasons, researchers and educators are developing, testing, and implementing these tools in L2 teaching and learning contexts.

To explore the affordances of AI in language instruction, the authors collaborated with the Davis Language Center (DLC) and Academic Technology Services at UC Davis to host the event “AI-Powered Language Instruction: Innovative Strategies and Applications” in February 2024. The event¹ brought together language instructors and instructional technologists to share strategies, offer insight based on their experiences, and discuss concerns about the use of AI in language teaching and learning. The qualities of effective prompt writing were also a central focus of the event. This article (1) provides a brief literature review about AI in L2 instruction, (2) details the organizers’ considerations in planning the event, (3) captures the logistics and outcomes of the event, and (4) concludes by reflecting on implications of the event for language educators. Below we highlight salient research on AI and L2 language instruction, specifically focusing on chatbots, writing, teacher training initiatives, and classroom practice.

LITERATURE REVIEW

AI Chatbots

AI-powered chatbots offer learners access to on-demand language tutors in a low-stakes environment. Chatbots can enhance L2 development by providing personalized and interactive contexts for language use (Liang et al., 2023), facilitating meaningful conversations, and targeting specific language skills. Dialogue-based computer-assisted language learning (CALL) can also support learners in developing their communicative proficiency (Bibauw et al., 2022). Learners can leverage chatbots to target specific areas of interest, engage in open conversation, or focus on an aspect of language needing extra support. Educators have also shown the benefits of using chatbots as a scaffolding tool, including by having students engage with the tool prior to group discussions. O’Neill (2024) reports on cases of teachers using AI-chatbots for lesson planning, to draft sample texts to illustrate grammar points, to offer a starting point to generate comprehension questions on literary texts, or to provide initial feedback on writing. Other scholars have used AI-chatbots to generate communicative language learning tasks and activities (Pérez-Núñez, 2024) as well as customized texts, comprehension questions, and vocabulary lists (Poole, 2022). Chatbots often provide conversation logs between students and machines, allowing instructors to identify errors and provide targeted feedback.

Research has demonstrated advantages and limitations of applying AI-based learning systems to achieve educational outcomes. Liang et al. (2023) reported that AI technologies not only improve student performance but also provide critical support to instructors by pinpointing and addressing learning challenges. Scholars have explored the role of AI in developing specific L2 skills, including writing, reading comprehension, vocabulary, and pronunciation (Li, 2024), while also examining learner anxiety, willingness to communicate, and classroom interaction (Son et al., 2023). AI has been found to facilitate student-centered learning, such as aiding in providing learners feedback on writing (Guo & Wang, 2023), and the analysis of writing errors and the enhancement of reading and lexicogrammatical

¹ To access event materials, see Jones et al. (2024a). <https://wheel.ucdavis.edu/blog/ai-tools-strategies-and-resources-uc-davis-instructors>

knowledge (Son et al., 2023). However, existing research has identified limitations of utilizing AI for language education, including a lack of empathy in interactions and a potential decrease in student engagement over time due to the novelty effect (Son et al., 2023). Li (2024) notes that more research is needed, especially for languages other than English, to better motivate choices about AI use in the classroom.

Writing

Writing is one of the most popular skills that language educators have used AI tools to support (Leander & Burriss, 2020; Son et al., 2023). Studies have demonstrated that using AI for writing can be helpful in providing feedback, such as using Automated Writing Evaluation (AWE) platforms like Grammarly (Godwin-Jones, 2022) or non-specialized platforms like ChatGPT (Koltovskaia et al., 2024), developing student autonomy (Link et al., 2014), and augmenting the timeliness of language support and practice (Huang et al., 2023). Research has also shown improved performance on grammar assessments, better outlines for essay writing, and higher self-confidence in using the L2 resulting from AI-mediated writing (Ayedoun et al., 2015; Kim et al., 2019; Lin & Chang, 2020). However, scholars note that the use of AI tools in writing is also controversial, as technological advancements have moved beyond vocabulary and grammar support to translating, rewriting, and generating novel text (Godwin-Jones, 2022). Others highlight limitations with AI-generated writing feedback, such as overly lengthy responses, inaccessible language, irrelevant or inaccurate comments, and divergence from the teacher's evaluation criteria (Guo & Wang, 2023; Koltovskaia et al., 2024).

Teacher Training and Digital Literacy

Teacher-scholars have emphasized the importance of instructors incorporating AI into their teaching to equip students with digital literacy skills. This preparation may be crucial for students to actively participate in modern workplaces (Byrd et al., 2023). Godwin-Jones (2022) suggests such training include information about how AI-based systems work, in what contexts they may perform best, and what expectations students should have about tool performance. To support these goals, O'Neill (2024) lists several strategies that instructors can leverage to educate their students on best practices for using AI, such as survey and reflection (Merschel & Munné, 2022) and Guided Use of Machine Translation² (Ryu et al., 2022), among others. The aim of these exercises is to foster critical thinking about how language works and bring awareness to students' own abilities as well as the strengths and weaknesses of online translators. In order to effectively support these objectives, teachers also need to be educated and empowered through accessible professional development and teacher training initiatives.

Reimagining Lesson Planning, Activity Design, and Class Policies

Now more than ever, L2 instructors are tasked with how to best mediate students doing their own work and creating tasks which are based on a more interactive model. This model requires students to engage more deeply in critical thinking, analyzing, and comparing rather than solely producing language. In response to these challenges, instructors suggest (a) designing multi-step iterative projects and tasks, (b) creating assignments that do not necessarily depend on

² We note that online machine translation is a form of AI.

the use of AI or online translation tools, (c) constructing assessments such as discussion forums, live presentations and synchronous oral discussions, and (d) training students to work with AI at home (O’Neill, 2024). The section of this article titled “The Event” presents a range of activities created by language instructors that are aligned with O’Neill’s (2024) guidelines.

Creating a classroom policy on the use of AI applications is another challenge for L2 instructors. It is important to construct a clear policy that sets proper expectations and is flexible enough to adapt to different classes and evolving technology. L2 instructors may benefit from exploring what their university’s center on teaching offers (see examples in Appendix A). These resources may serve as a starting point for instructors to craft an AI policy that works for their context.

As with any technological innovation, AI applications should be met with caution. Instructors and students should approach any use of AI tools with a critical mindset. AI tools can hallucinate, which can entail generating nonsensical discourse (Ji et al., 2023) and providing inaccurate information (U.S. Department of Education, 2023). AI technologies also pose challenges for ethics and security (Benigio et al., 2024), as well as accessibility and equity (Hockly, 2023), given the variance in students’ knowledge of how to use AI. Further, biases in NLP, such as gender and racial biases, may cause “language practices, assessments, and expectations” (Kessler, 2021, p. ix) to not align with the reality of language learners, who represent a diverse array of backgrounds, gender, ethnicities, and races. Finally, AI systems require substantial energy resources, putting into question the environmental impact AI will produce (Ren & Wierman, 2024). Given these complex benefits and drawbacks, the use of AI for language instruction invites rigorous exploration and debate.

In response to calls for more research and practice in AI-assisted language learning (Son et al., 2023), and addressing the gap in teacher-focused studies highlighted by Liang et al. (2023), this article aims to shed light on current efforts to train L2 instructors about effective AI-related pedagogical practices. Next, we share the details of our teacher professional development event, including our planning process and day-of result, followed by our post-event reflections.

PLANNING AN AI PROFESSIONAL DEVELOPMENT EVENT

First, we introduce ourselves, the organizers of the event, as our distinct perspectives influenced the way we approached this teacher training event.

Sophia. I have taught primarily English language and writing courses while completing a PhD in Linguistics. In the spring of 2023, I became involved in a reading group about AI in language and literacy education. Not exactly a technology enthusiast, I was against using AI in my classroom when I first joined the group. Over time, I realized that this technology is here to stay, and I do not desire to deepen the digital divide by pretending like my students will never use AI. For this reason, I started experimenting with having students utilize AI to receive formative feedback on their writing, which I presented about at our event. I am, however, greatly concerned about bias in these systems, student overreliance on the machines, and AI’s environmental impact. I think that we must find a balance between effective, equity-building uses of AI and a healthy dose of skepticism about this new technology.

Lillian. With over a decade of teaching Spanish and a PhD in Spanish linguistics and second language acquisition with a focus on CALL, I am continually engaged in exploring the

intersections of educational technology and language learning. I have taught lower- and upper-division Spanish in online, hybrid, and in-person settings. My teaching, research, and industry experience have provided me with insight on how access to technology—and the lack thereof—along with tools, knowledge, and training has the power to either enhance learning or create barriers. I have been using AI tools, prominently ChatGPT, as a companion for lesson and activity planning, content editing, and image generation. I often modify AI-generated output to best suit my specific needs, ensuring that my content expertise serves as the guiding authority. Further, in my role at a language learning educational technology company, I designed activities that integrate AI to offer dynamic conversation and task-based learning experiences with personalized feedback across interactive modes, including immersive 3D scenarios. I aim to inspire fellow language instructors to critically evaluate and possibly integrate AI into their teaching practices in order to better prepare students for the technologically-integrated present and future.

Salvador. While I organized the event during my BA in Spanish, I am now starting an MA in Spanish Literature. For the past few years, I have served as a tutor for the Heritage Speakers Series at UC Davis, working one-on-one with students to help them gain an understanding of academic writing in Spanish. When AI was first released, I felt that it did not align with my interests because I understood it as a way of cheating. However, by learning from my peers' use of AI, I realized that utilizing AI tools could be productive if practiced ethically. In the literary field, writing essays constitutes an important and challenging aspect of our work. It was not until I started incorporating AI in my Spanish tutoring that I realized AI could help me with essay writing, for instance, by recommending transitional phrases or finding alternatives for repetitive phrasing. I hope to continue exploring ways that these tools can safely and responsibly help students while also acknowledging the human element of teaching an L2.

The three authors were participants in Dr. Robert Blake's DLC presentation about AI for language teaching in October 2023³, which provided a general overview about AI for language instructors looking to incorporate these technologies into their curriculum. Attendees—a mix of faculty from languages, writing, and education departments, graduate student instructors, undergraduate students, and instructional technologists—voiced a desire to learn more about this topic through a subsequent event geared towards hands-on practice using the tools. Given the affordances of our distinct perspectives and motivation to continue this work, we decided to collaboratively plan the anticipated follow-up workshop.

Pre-Event

The authors planned the workshop through bi-weekly meetings over the course of three months. Our goal was to create a workshop and open forum in which language instructors had designated time to try out AI tools and to openly discuss ideas and concerns with colleagues, while still learning from those who have practiced using these tools for teaching and learning. Using a backward design approach, we started with our event objectives, decided on an overall structure, and then determined the specific details for each section of the event.

³ The presentation slides and a video recording of this event are available at <https://ucdlc.ucdavis.edu/events/chatgpt-or-1984-primer-language-teachers>

This workshop consisted of two parts: (1) a panel featuring presenters from a variety of language programs followed by (2) an interactive hands-on session, designed to provide participants with the opportunity to experiment with the tools (see Table 1 and Appendix B). The primary aim of the panel discussion was to show event attendees and other panelists potential applications of AI tools in a classroom environment. The instructor and student panelists were chosen based on their experience with using AI for teaching and learning, as well as for their variety of language backgrounds and expertise (e.g., technology in the classroom, linguistics, literature). We leveraged the diversity of this panel to best serve our audience's needs, as the presenters shared insightful practices that had been successful in a multitude of contexts.

Planning the second part of the workshop required more creative approaches. We provided opening remarks, introducing a few AI tools and showing how to access the tools while protecting personal data. Then, we described two potential scenarios that audience members could adopt for their interactive practice: the perspective of a student or teacher. As a teacher, they could leverage AI tools to create a lesson plan; as students, they could utilize AI to construct a study guide. We emphasized that these uses represented a small sample of the possible AI applications for teachers and students; however, we selected these applications for the event as it let us tackle specific parts of AI capabilities that felt most relevant. The panel presentation served as inspiration for participants' creations during the interactive part.

The event took place in the DLC, in an active learning space, where a large presentation screen could be used to share the presentation materials with both in-person and Zoom attendees, and attendees could comfortably move around and interact with others. This hybrid modality allowed our audience to attend from distinct settings and for the event to be recorded, facilitating asynchronous viewing. This modality was made possible by Dr. Fuqiang Zhuo, Associate Director of the DLC, who managed the camera and microphones during the workshop. The event was advertised via listservs, and we particularly reached out to members of the campus language education community who had expressed interest in learning more about AI.

Table 1
Event Agenda

Activity	Duration	Details
Introduction	5 minutes	Dr. Blake gave opening remarks, introduced the panelists, and began moderating the panel presentations.
Panel	25-30 minutes	Each panelist gave a 5 minute-long presentation about AI in their language classroom.
Q+A	10 minutes	The audience asked questions about the panel presentations.
Hands-on portion	20-30 minutes	The authors of this article guided participants through completing a lesson plan or study guide using AI and provided support during independent work time.
Show-and-tell of	5 minutes	Audience members shared what they had worked on,

what developed		discussed, or learned during the hands-on portion.
Conclusion	5 minutes	The authors wrapped up with final takeaways and resources for further professional development.
TOTAL	1.5 hours	

The Event

As each panelist demonstrated their work, attendees learned from different perspectives and formed new questions. Dr. Margaret Merrill, Senior Instructional Design Consultant with Academic Technology Services, commenced the panel by offering remarks regarding ethical concerns surrounding AI and its use in an academic setting. She touched on questions related to students' privacy and accessibility while using AI in the classroom and reminded the audience of the university's vetting process for educational technology tools.

Salvador then provided an overview of AI platforms that students commonly use. He also discussed how he and fellow students did not find AI to be useful in literature courses, due to its propensity to hallucinate, confusing key characters in summaries of literary pieces. After he presented ideas about using AI for transcriptions and as study guides, Salvador was met with the questions: Why not just Google his questions? Why use AI? This sparked open discussion, allowing participants to question whether AI is appropriate for use in the classroom setting.

Next, Dr. Shagufta Fatema, Lecturer in Hindi and Urdu who teaches beginning language courses, discussed how AI can make the learning process more engaging and motivating for students, something difficult to maintain post-pandemic. Fatema also mentioned that AI can provide enhanced accessibility for students, as many AI platforms can be accessed through applications on our cellphones.

Lillian presented about how ChatGPT can be used for students to have conversations in Spanish, to practice verb tenses, and to carry out task-based activities. If monitored properly, Lillian proposed that AI can greatly support independent language learning since it gives students a partner with which to practice their language skills.

Dr. Kirsten Harjes, Senior Continuing Lecturer and Language Program Coordinator in German, gave a presentation that illustrated an innovative prompt for upper-division literature classes. Harjes showed how students may feel relieved using ChatGPT to solve "writer's block," as it may help them begin to develop an outline for an essay. She also highlighted how her students identified ChatGPT's hallucinations.

Afterwards, Dr. Yutian Tan, Lecturer in Chinese, demonstrated how to create a fill-in-the-blanks exercise using ChatGPT for practicing unit vocabulary in an advanced Chinese class. Tan stressed that while AI-generated activities can help to deliver a tailored experience for the student, the human element must be maintained in order to ensure the quality of the exercise.

Lastly, Sophia gave a presentation on how AI can provide feedback to students on their writing without rewriting their essays. The AI-generated feedback seemed to be fairly aligned with instructor feedback, indicating that ChatGPT can offer a nudge in the right direction for students to improve their writing skills.

After seeing a variety of AI implementations from our panelists, we noticed how assignments offered affordances for students to deepen their understanding or motivation and for instructors to foster or assess student learning. However, most presenters encountered the same problem: the AI tools did not always reliably follow their *prompts*. Research indicates that interacting with AI tools often involves an iterative, back-and-forth exchange requiring users to balance specificity with adaptability, rewording prompts as needed to complete the task. For example, Pérez-Núñez (2024) highlighted the need to include contextual features such as learner proficiency levels and learning objectives in prompts. Pérez-Núñez concluded that ChatGPT can support the development of tasks, granted that the user has the technological proficiency and pedagogical expertise necessary to revise their prompts and ChatGPT's output. Other points of reference for prompt writing include (1) the TATTOO framework (Warner, 2024), which guides teachers to consider the Task, Actor, Target, Translation, Objective, and Output when crafting their AI queries, and (2) the CLEAR framework (Lo, 2023), which advocates for prompts that are Concise, Logical, and Explicit and users who are Adaptive and Reflective. Even with carefully crafted prompts, continuous refinement and reflection may be necessary to adapt to evolving technology.

During the hands-on portion of the event, we split into smaller groups, in which attendees either worked on specific tasks or discussed different portions of the assignment (see handout in Appendix B). Lillian's one-on-one conversations during this time strongly reflected the aforementioned call for a clear, iterative approach to prompt writing, highlighting the importance of precise wording alongside flexibility and adaptation. Salvador's group had a similar discussion about how successively refining one's prompts yields better results. Participants also conversed about the efficiency of using AI through apps across devices. The content on the handout provided critical support in the form of suggestions and models for interaction with AI tools, helping participants move through their activities quickly and productively.

The workshop ran smoothly but included less time than planned for the hands-on activity. As is typical, a few presenters took longer than anticipated, which reduced the time available for the hands-on portion of the workshop. In the future, similar events would benefit from building in buffer time and setting clearer expectations for moderators. The event may have also been enriched by inviting more undergraduate students as presenters to include even more outlooks on AI in language education. Overall, the event offered valuable information to the DLC community.

REFLECTIONS

By facilitating dialogue among language educators and learners, the event helped our community make more informed decisions about whether and/or how to use AI in educational settings. One point of discussion in the event, and that caused shifts in our teaching practices after the event, related to equity concerns. As mentioned by Merrill, instructors may foster equity by *not* requiring students to use AI, as some students may feel uncomfortable sharing their personal information to create an account or inputting their work into a machine. However, if students do not learn how to use AI because they are not required to use it, they may face inequities resulting from a lack of digital literacy skills (Warschauer et al., 2023). There may be no perfect solution. Taking a critical approach—which Vinall and Hellmich (2022) recommend for teaching with Machine Translation—is a good start. Our community of educators must continue to critically dialogue about these questions, drawing

from classroom-based research findings, to determine strategies that work best for the local context.

Authors' Personal Post-Event Reflections

In the following paragraphs, the event organizers share their reflections on how they have applied post-event insights in their pedagogical practices.

Sophia's post-reflections for an in-person classroom: Merrill's comment about equity prompted me to rethink a one-size-fits-all approach to AI. To better understand my students' feelings regarding AI before requiring them to use it, I implemented an activity similar to that proposed by Xu and Tan (2024). I asked the students to create a visual representation of their views about and relationship with AI. This creative activity became a springboard for critical discussions about AI's role in the classroom and society. One student presented a crumpled piece of paper on which she had drawn a frightening image of AI. By listening to my students in this activity, I realized that I should not oblige them to use this technology. While I still present in class about ways of prompting AI for writing feedback so that students develop digital literacy skills, I give students multiple, alternative ways to participate in activities that previously required AI use.

Lillian's post-reflections for an online classroom: This workshop and further literature review motivated me to reimagine assessment design, specifically for online Intermediate Spanish courses. I shifted from standalone compositions to iterative multi-step projects, as suggested by O'Neill (2024), based on the American Council on the Teaching of Foreign Languages framework for language skills: interpretive, interpersonal, and presentational. For Intermediate I, the final project involved creating a comparative-reflective composition and video. Students researched a Spanish-speaking country, analyzed cultural similarities and differences, and successively submitted an outline, rough drafts, and a final video and composition. In Intermediate II, the project was a multi-part linguistic landscape where students documented local Spanish language use through visual research. They took photos, shared them on a Google site, created voice-over videos, analyzed peers' contributions, engaged in discussions, and wrote reflective essays. Students could still use any technological tools to support their learning, but the multilayered approach rendered each assignment more meaningful and more clearly connected to our learning objectives. I designed the iterative project to require students to engage in analysis, interpretation, critical thinking, and comparison at multiple stages, with the goal of limiting students' reliance on AI tools generating large portions of text at one time. This process-oriented approach aimed to make students less prone to using AI tools for translation of larger chunks of the assignment.

Salvador's post-reflections on Spanish tutoring: Hearing the different perspectives during the workshop and practicing using the AI platforms helped me gain new insight on how to better help students vary their essay structure and vocabulary. Since then, I have more regularly discussed with tutees how to ethically use AI platforms like ChatGPT. This approach resulted in students beginning the writing process with less anxiety and using ChatGPT to proofread their work, not to write their entire essay. A few students did not like using these platforms because they found using them to be ethically wrong, which taught me that sometimes certain

tools do not fit everyone's needs. However, the conversation on AI tools allowed me to help students with using external resources to assist their writing process.

Future Directions & Implications

One area that merits further investigation relates to intersections between Critical Language Awareness (CLA), linguistic justice, and AI. Scholars have noted that uncritical applications of AI tools can reinforce standard language ideologies and other harmful biases (Bender et al., 2021; Byrd, 2023). Certainly, it is not the AI tools themselves that engage in unethical behavior, but rather it is the manner in which people develop and use the tools that can perpetuate bias. AI is a product of human influence. By encouraging students to use AI without appropriate training about its biases and limitations, we may be contradicting our aims to promote linguistic justice in our classrooms. Teacher-scholars ought to engage in further research about how to develop AI literacy without contributing to the oppression of marginalized communities. One possibility may entail building students' CLA through analysis of how AI responses convey a rejection of non-standard language practices—a process which originates in AI's training data.

Ultimately, we must center humans. Replacing educators with AI is not a reasonable course of action, for innumerable reasons beyond those mentioned previously (see Kern, 2024). The quick adoption and integration of AI in the (corporate) world does not necessarily mean that education must follow suit, although it is undeniable that many students and instructors have adopted AI for use in educational purposes (Darby, 2023). While AI can serve to enhance language teaching and learning, teachers may seek to pair it with low-tech, more environmentally friendly, and more community-centered approaches to language teaching (e.g., Porto, 2024).

However, language programs must adequately *train* their instructors so that they can decide how AI tools may or may not support their pedagogy (Kessler, 2021). These trainings must help instructors to develop the technological, pedagogical, and content knowledge (TPACK) necessary for instructors to exert agency over their use of AI in the classroom and design effective tasks to meet their curricular objectives (Koehler & Mishra, 2009). These events should underscore that when teachers approach the use of any technology tool, they should focus on whether the tool supports their learning objectives. We recommend that language programs compensate their instructors for attending such trainings. To increase the accessibility of trainings, they could be offered in hybrid or asynchronous, online modalities. Our hybrid event, with handouts distributed to all registrants, offered instructors flexible ways of attending and referencing the material after the event. As many instructors feel overwhelmed by challenges related to AI (Xu & Tan, 2024), language program coordinators may benefit from hosting similar trainings in the near future.

Language programs should leverage the teacher training resources that centers for teaching on their campuses are already providing. As seen in Appendix A, many University of California (UC) campuses have published resources for classroom and program policies related to AI. These universities have also been spearheading professional development initiatives to inform instructors about the emerging pedagogical implications of AI. For example, UC Riverside centered their [Spring 2024 Techtalk Series on AI Literacy](#), UC Irvine hosted the faculty workshop [Embracing AI: Using Generative AI to Facilitate Learning](#)⁴, and

⁴ A [recording](#) and [slides](#) from this workshop are also available.

UCLA hosted [AI in Action 2023](#). Ideally, these training initiatives will be ongoing and sustainable. Continuing to reflect the values of accessibility in technology, knowledge, and education, we propose that the materials and knowledge resulting from teacher trainings contribute to the Open Educational Resource (OER) movement. In this way, teachers have access to a greater quantity of pedagogically sound materials, and language learning can be made more accessible to a wider variety of learners.

CONCLUSION

This article represents one step toward increasing resources about AI and language pedagogy to serve language instructors in the UC and beyond. We encourage readers to serve their local teacher community by hosting similar professional development events, drawing from the lessons we learned from organizing this workshop and from state-of-the-art research. Sharing AI-related materials through channels such as program-wide files, newsletters, blog posts (Jones et al., 2024a, 2024b), and articles can also facilitate the exchange of ideas about this timely topic. These resources must also be updated over time to account for rapid technological changes. Furthermore, readers should consult the openly accessible resources that have already been developed by language teaching units across the UC, such as the Berkeley Language Center (BLC; [BLC, 2024](#)), the UC Irvine Digital Learning Lab (DLL; [2024](#)), and the UCLA Center for World Languages ([2023](#)). By sharing our resources and learning from those that exist, we facilitate instructors' processes of adapting AI-related materials and policies to their local context.

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REFERENCES

- Ayedoun, E., Hayashi, Y., & Seta, K. (2015). A conversational agent to encourage willingness to communicate in the context of English as a foreign language. *Procedia Computer Science*, 60, 1433-1442. <https://doi.org/10.1016/j.procs.2015.08.219>
- Bender, E. M., Gebru, T., McMillan-Major, A., & Shmitchell, S. (2021, March). On the dangers of stochastic parrots: Can language models be too big? *Proceedings of the 2021 ACM conference on fairness, accountability, and transparency* (pp. 610-623). <https://doi.org/10.1145/3442188.3445922>
- Benigio, Y.M., Hinton, G., Yao, A., Song, D., Abbeel, P., Harari, Y.N., Zhang Tsinghua, Y.Q., Xue, L., Shalev Shwartz, S., Hadfield, G., Clune, J., Maharaj, T., Hutter, F., Gunes, A., McIlraith, S., Gao, Q., Acharya, A., Krueger, D., Dragan, A., Torr, P., Russell, S., Kahneman, D., Brauner, J., & Mindermann, S. (2024). Managing AI risks in an era of rapid progress. *Science*, 384(6698), 842-845. <https://doi.org/10.1126/science.adn0117>
- Berkeley Language Center. (2024). *Language and AI*. <https://blc.berkeley.edu/programs-and-initiatives/language-and-ai>
- Bibauw, S., Van den Noortgate, W., François, W., & Desmet, P. (2022). Dialogue systems for language learning: A meta-analysis. *Language Learning & Technology*, 26(1), 1-24. <https://doi.org/10.1257/73488>
- Byrd, A. (2023). Truth-telling: Critical inquiries on LLMs and the corpus texts that train them. *Composition Studies*, 51(1), 135-142.
- Byrd, A., Flores, L., Green, D., Hassel, H., Johnson, S., Kirschenbaum, M., Lockett, A., Losh, E., & Mills, A.

- (2023). MLA-CCCC joint task force on writing and AI working paper: Overview of the issues, statement of principles, and recommendations. *MLA-CCCC Joint Task Force*. <https://aiandwriting.hcommons.org/working-paper-1/>
- Darby, F. (2023, November 13). Why you should rethink your resistance to ChatGPT. *The Chronicle of Higher Education*. <https://www.chronicle.com/article/why-you-should-rethink-your-resistance-to-chatgpt>
- Digital Learning Lab. (2023). *Generative AI in Education*. <https://www.genaied.org/>
- Godwin-Jones, R. (2022). Partnering with AI: Intelligent writing assistance and instructed language learning. *Language Learning & Technology*, 26(2), 5–24. <http://doi.org/10.125/73474>
- Guo, K. & Wang, D. (2023). To resist it or to embrace it? Examining ChatGPT's potential to support teacher feedback in EFL writing. *Education and Information Technologies*, 29, 8435–8463. <https://doi.org/10.1007/s10639-023-12146-0>
- Hockly, N. (2023). Artificial intelligence in English language teaching: The good, the bad and the ugly. *RELC Journal*, 54(2) 445–451. <https://doi.org/10.1177/00336882231168504>
- Huang, X., Zou, D., Cheng, G., Chen, X., & Xie, H. (2023). Trends, research issues and applications of artificial intelligence in language education. *Educational Technology & Society*, 26(1), 112-131. [https://doi.org/10.30191/ETS.202301_26\(1\).0009](https://doi.org/10.30191/ETS.202301_26(1).0009)
- Ji, Z., Lee, N., Frieske, R., Yu, T., Su, D., Xu, Y., Su, D., Xu, Y., Ishii, E., Bang, Y.J., Madotto, A. & Fung, P. (2023). Survey of hallucination in natural language generation. *ACM Computing Surveys*, 55(12), 1-38. <https://doi.org/10.1145/3571730>
- Jones, L., Minnillo, S. & García, S. (2024a). AI tools, strategies, and resources for UC Davis instructors. The wheel: The instructional technology blog of UC Davis. <https://wheel.ucdavis.edu/blog/ai-tools-strategies-and-resources-uc-davis-instructors>
- Jones, L., Minnillo, S. & García, S. (2024b). Bot or not? Materials & considerations for using AI in language instruction: Takeaways from the DLC's "AI-Powered Language Instruction" event. UC Davis Language Center. <https://ucdlc.ucdavis.edu/blog/bot-or-not-materials-considerations-using-ai-language-instruction>
- Kern, R. (2024). Twenty-first century technologies and language education: Charting a path forward. *The Modern Language Journal*, 108, 515-533. <https://doi.org/10.1111/modl.12924>
- Kessler, G. (2021). Current realities and future challenges for CALL teacher preparation. *Calico Journal*, 38(3), i–xx. <https://doi.org/10.1558/cj.21231>
- Kim, N.Y., Cha, Y., & Kim, H.S. (2019). Future English learning: Chatbots and artificial intelligence. *Multimedia-Assisted Language Learning*, 22(3), 32-53. <https://doi.org/10.15702/mall.2019.22.3.32>
- Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge? *Contemporary Issues in Technology and Teacher Education*, 9(1), 60–70. <https://www.learntechlib.org/primary/p/29544/>
- Koltovskaia, S., Rahmati, P., & Saeli, H. (2024). Graduate students' use of ChatGPT for academic text revision: Behavioral, cognitive, and affective engagement. *Journal of Second Language Writing*, 65. <https://doi.org/10.1016/j.jslw.2024.101130>
- Leander, K. & Burriss, S. (2020). Critical literacy for a posthuman world: When people read, and become, with machines. *British Journal of Educational Technology*, 51(4), 1262-1276. <https://doi.org/10.1111/bjet.12924>
- Li, Y. (2024). Usability of ChatGPT in Second Language Acquisition: Capabilities, Effectiveness, Applications, Challenges, and Solutions. *Studies in Applied Linguistics and TESOL*, 24(1). <https://doi.org/10.52214/salt.v24i1.12864>
- Liang, J.C., Hwang, G.J., Chen, M.R., & Darmawanash, D. (2023). Roles and research foci of artificial intelligence in language education: an integrated bibliographic analysis and systematic review approach. *Interactive Learning Environments*, 31(7), 4270-4296. <https://doi.org/10.1080/10494820.2021.1958348>
- Lin, M. P.-C., & Chang, D. (2020). Enhancing post-secondary writers' writing skills with a chatbot. *Journal of Educational Technology & Society*, 23(1), 78–92. <https://www.jstor.org/stable/26915408>
- Link, S., Dursun, A., Karakaya, K., & Hegelheimer, V. (2014). Towards better ESL practices for implementing automated writing evaluation. *Calico Journal*, 31(3), 323-344. <https://doi.org/10.11139/cj.31.3.323-344>
- Lo, L. (2023). The CLEAR path: A framework for enhancing information literacy through prompt engineering. *The Journal of Academic Librarianship*, 49(4). <https://doi.org/10.1016/j.acalib.2023.102720>
- Merschel, L. & Munné, J. (2022). Perceptions and practices of machine translation among 6th-12th Grade World Language teachers. *L2 Journal*, 14(1), 60-76. <https://doi.org/10.5070/L214154165>
- O'Neill, E. (2024, January 31). Integrating online translators and other AI Tools in language instruction [presentation]. Rebooting Language Educ-AI-tion series – CERCLL.

- OpenAI. (2023). ChatGPT 4o [Large language model]. <https://chat.openai.com/chat>
*ChatGPT 4o was used in the capacity of a writing tutor and companion.
- Pérez-Núñez, A. (2024). ChatGPT in Spanish language instruction: exploring AI-driven task generation and its implications for teaching practices. *Journal of Spanish Language Teaching*, 11(1), 61-82.
<https://doi.org/10.1080/23247797.2024.2366053>
- Poole, F. (2022, December 13). Using ChatGPT to design language material and exercises. *The FLT Mag*.
<https://fltmag.com/chatgpt-design-material-exercises/>
- Porto, M. (2024). How can language education contribute to securing a livable planet?. *TESOL Quarterly*.
<https://doi.org/10.1002/tesq.3321>
- Ren, S. & Wierman, A. (2024, July 15). The uneven distribution of AI's environmental impacts. *Harvard Business Review*. <https://hbr.org/2024/07/the-uneven-distribution-of-ais-environmental-impacts>
- Ryu, J., Young, A.K., Park, S., Eum, S., Chun, S., & Yang, S. (2022). Exploring foreign language students' perceptions of the guided use of machine translation (GUMT) model for Korean writing. *L2 Journal*, 14(1), 136–165. <https://doi.org/10.5070/L214151759>
- Son, J. B., Ruzić, N. K. & Philpott, A. (2023). Artificial intelligence technologies and applications for language learning and Teaching. *Journal of China Computer Assisted Language Learning*, 1–19.
<https://doi.org/10.1515/jccall-2023-0015>
- UCLA Center for World Languages. (2023). *AI technology in language pedagogy & research*.
<https://www.international.ucla.edu/cwl/event/16323>
- U.S. Department of Education. (2023). *Artificial intelligence and future of teaching and learning: Insights and recommendations*. Office of Educational Technology. <https://www2.ed.gov/documents/ai-report/ai-report.pdf>
- Vinall, K., & Hellmich, E. (2022). Do you speak translate?: Reflections on the nature and role of translation. *L2 Journal*, 14(1), 4–25. <https://doi.org/10.5070/L214156150>
- Warner, B. (2024, May 14). The TATTOO prompt – prompt engineering for language teachers. *aiinesl.com*.
<https://aiinesl.com/the-tattoo-prompt/>
- Warschauer, M., Tseng, W., Yim, S., Webster, T., Jacob, S., Du, Q., & Tate, T. (2023). The affordances and contradictions of AI-generated text for writers of English as a second or foreign language. *Journal of Second Language Writing*, 62, <https://doi.org/10.1016/j.jslw.2023.101071>.
- Xu, W., & Tan, X. (2024). Beyond words: L2 writing teachers' visual conceptualizations of ChatGPT in teaching and learning. *Journal of Second Language Writing*, 64.
<https://doi.org/10.1016/j.jslw.2024.101110>.

Appendix A: Sample Syllabus Statements

- [Sample syllabus statements](#) from the Center for Educational Effectiveness at UC Davis.
- An overview on [AI tools and teaching recommendations](#) from the UC Berkeley Center for Teaching & Learning.
- [Language and AI](#) from the UC Berkeley Language Center.
- Resources for [clearly addressing using AI in course syllabi](#) from the Division of Teaching Excellence and Innovation at UC Irvine.
- [Syllabus sample statements](#) from XCITE Center for Teaching and Learning at UC Riverside.

Appendix B. Training Handout

- [Handout](#) that the authors used to guide the hands-on portion of the event.