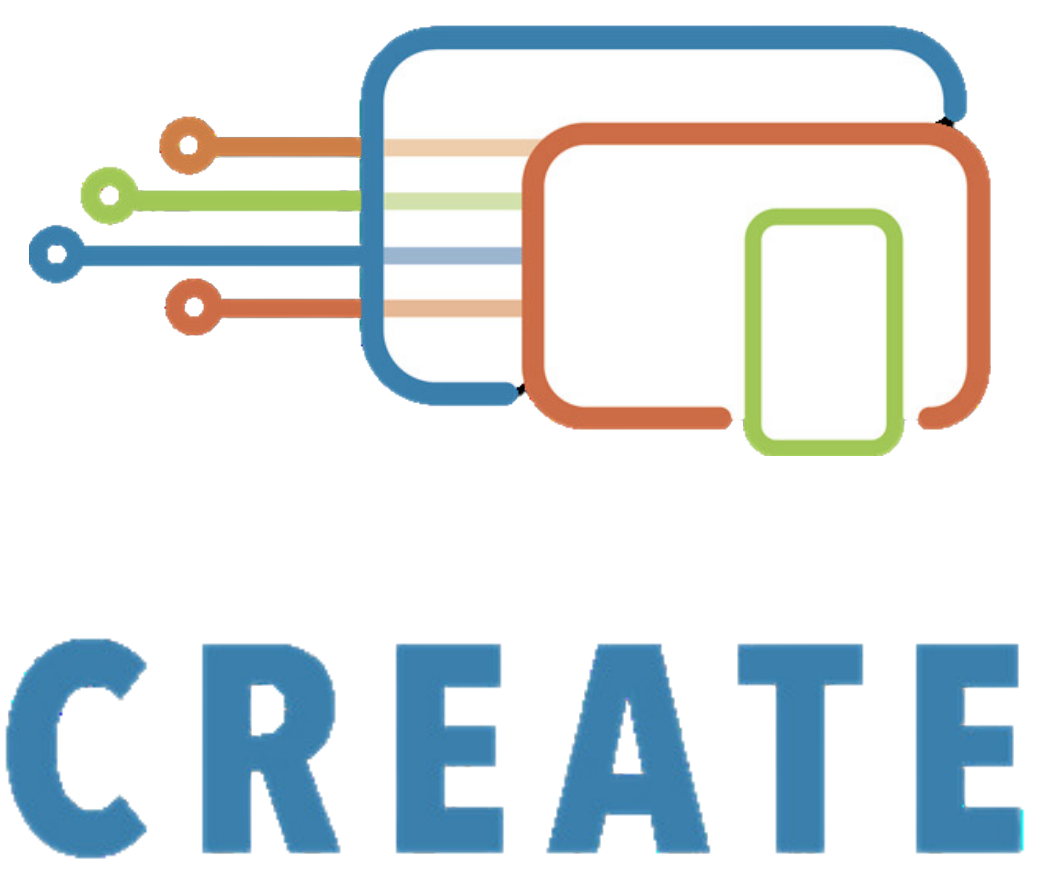




Adult Numeracy in the Digital Era (ANDE)

Team

Ann Edwards, Lewis Hosie, Bryan Matlen, Ashli-Ann Douglas, Brent Jackson, Haley McNamara, and Alexis Cherewka

Affiliations

WestEd, JSI/WorldEd, and the Pennsylvania Department of Education

Our Research

Numeracy and digital literacy skills are essential for postsecondary success, workforce entry, career goals, and citizenship. Yet nearly 1/3 of U.S. adults lack basic numeracy and digital literacy skills (OECD, 2024). ANDE aims to develop and evaluate a student-centered and technology-supported numeracy course to engage adult learners productively and positively in deep mathematics learning and enable them to meet their goals and build robust mathematical reasoning and digital literacy skills for life.

Future Impact

ANDE is more than self-directed learning to prepare for a test. Its research-based approach supports learners to build habits of mind and skills that are beneficial not only for achieving success on their exams, but for adult learners' long-term aspirations (e.g., critical thinking and justifying reasoning which is important for career advancement). It uses real-world scenarios to engage students and help them see the value and utility of mathematics in their lives and encourages active collaboration to promote learning and connection and belonging.

What's Next?

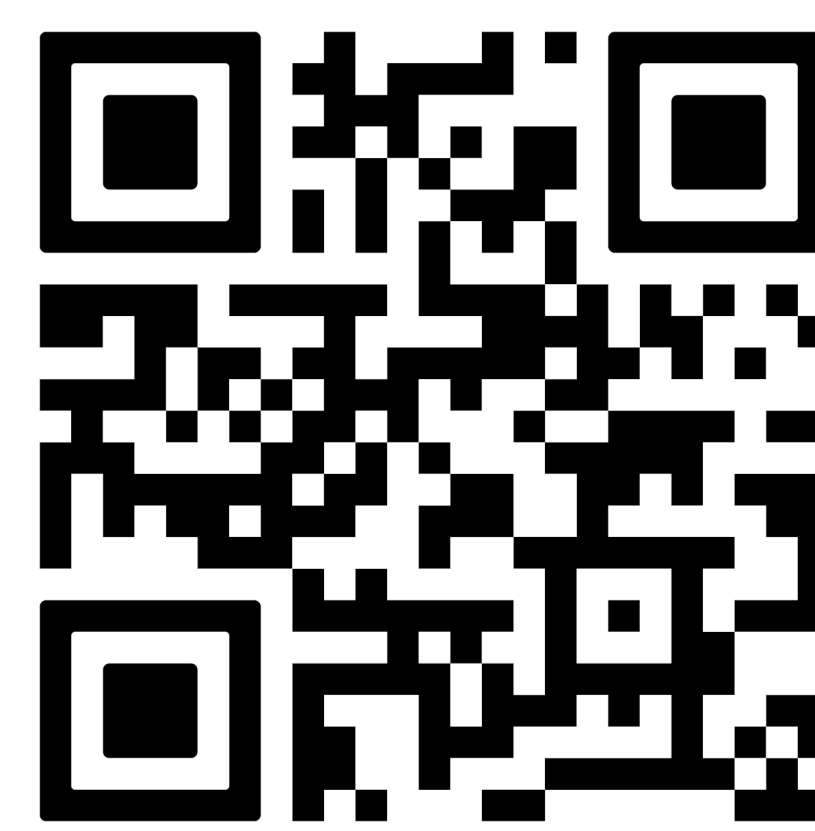
We are excited to share that the **ANDE curriculum is now available as a free open educational resource (OER)**. The ANDE curricular components include:

- Student-facing lessons
- Teacher instruction notes for every lesson
- Student Supports that foster belonging, positive mindsets, and classroom community
- Online platform with individual preparation activities aligned to lessons

Visit the **OER webpage** by scanning the QR code here:



The materials are written at accessible reading levels and include optional digital practice across four progressive mini-courses that cover the key mathematics needed for success on the GED (rational number and operations, proportional reasoning, foundational algebra, and data/statistics & geometry). **Sign up for the ANDE Professional Development Workshop** by scanning the QR code below:



Sign up for a webinar to learn more about ANDE and how to implement it in your classroom by scanning the QR code below:

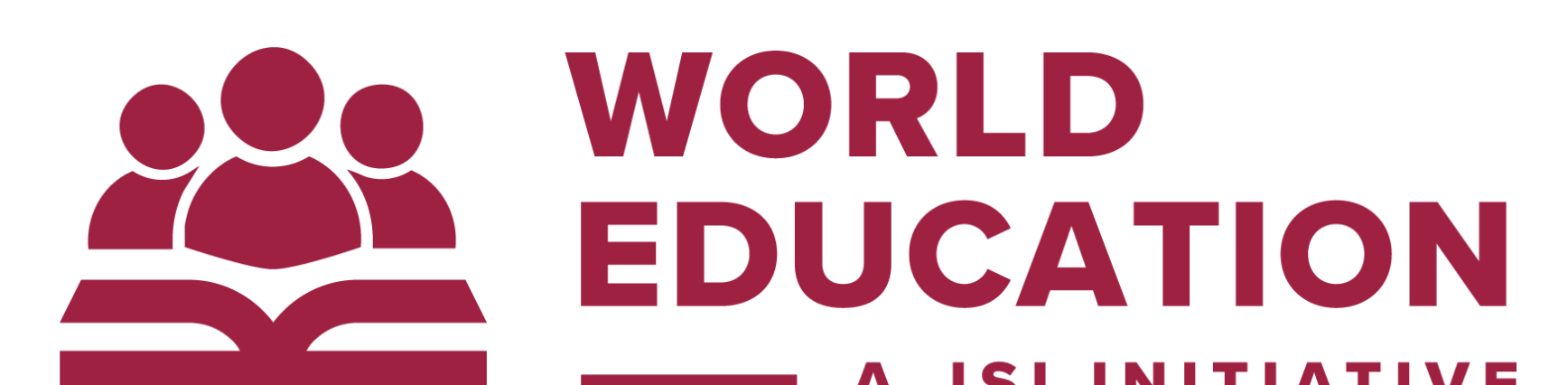


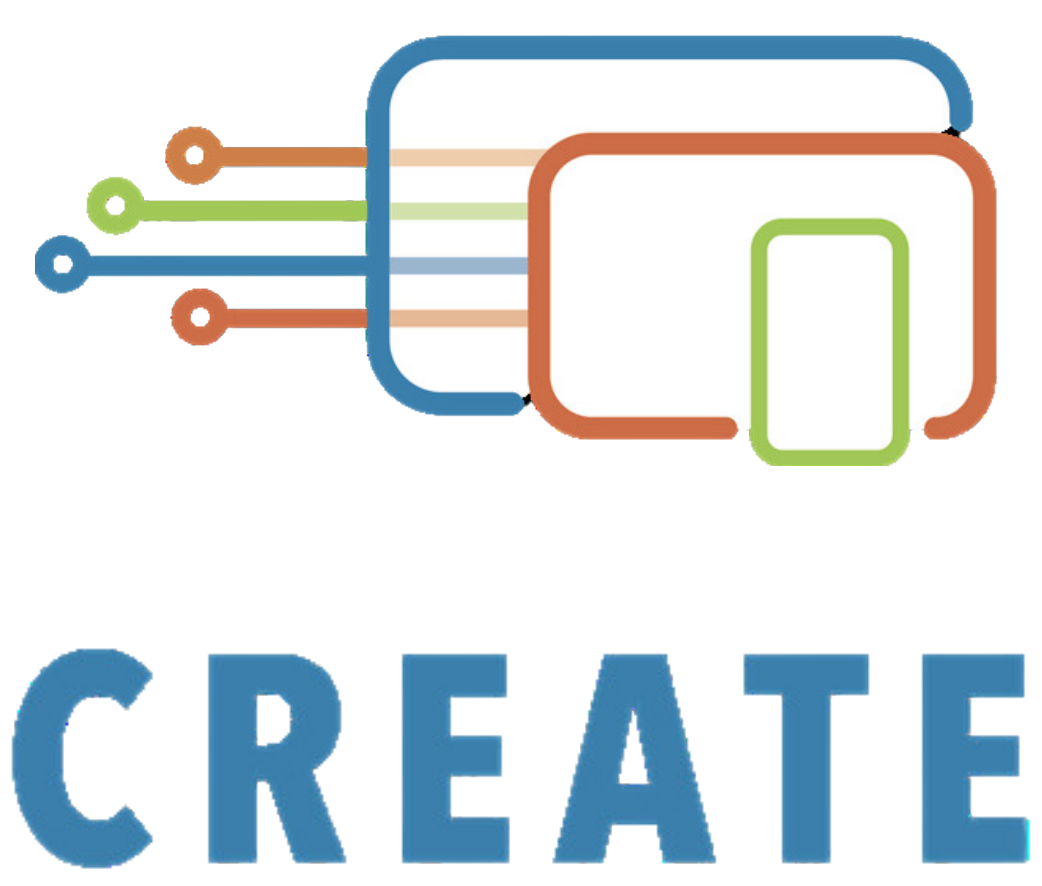
What We're Learning

Data collection for our study of student experiences and outcomes concluded by the end of 2025. While analyses are still preliminary, we are seeing that students in the ANDE course scored about a quarter of a standard deviation higher on average on an assessment of their math learning than students who did not take ANDE. The course seems to be particularly helpful for level 2 and 3 learners. Instructors implemented new instructional routines that supported productive mathematics discourse. We learned that students and instructors valued the opportunity to collaborate with their peers and participate in discourse.

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AutoTutor for Adult Reading Comprehension (ARC)

Team

Dr. John Sabatini, Dr. Arthur Graesser, Dr. Daphne Greenberg, and Dr. Tenaha O'Reilly

Affiliations

University of Memphis, Georgia State University, and Educational Testing Service

Our Research

The 2023 PIAAC Survey of adult literacy skills reveals that 28% of U.S. adults scored at Level 1 or below. This means that approximately 58.9 million adults lack the advanced skills required to handle complex literacy tasks.

The AutoTutor for Adult Reading Comprehension (ARC) project is building and evaluating an intelligent tutoring system (ITS) that uses collaborative **'trialogues' among a teacher agent, a peer student agent, and the adult learner** to support literacy and reading comprehension.

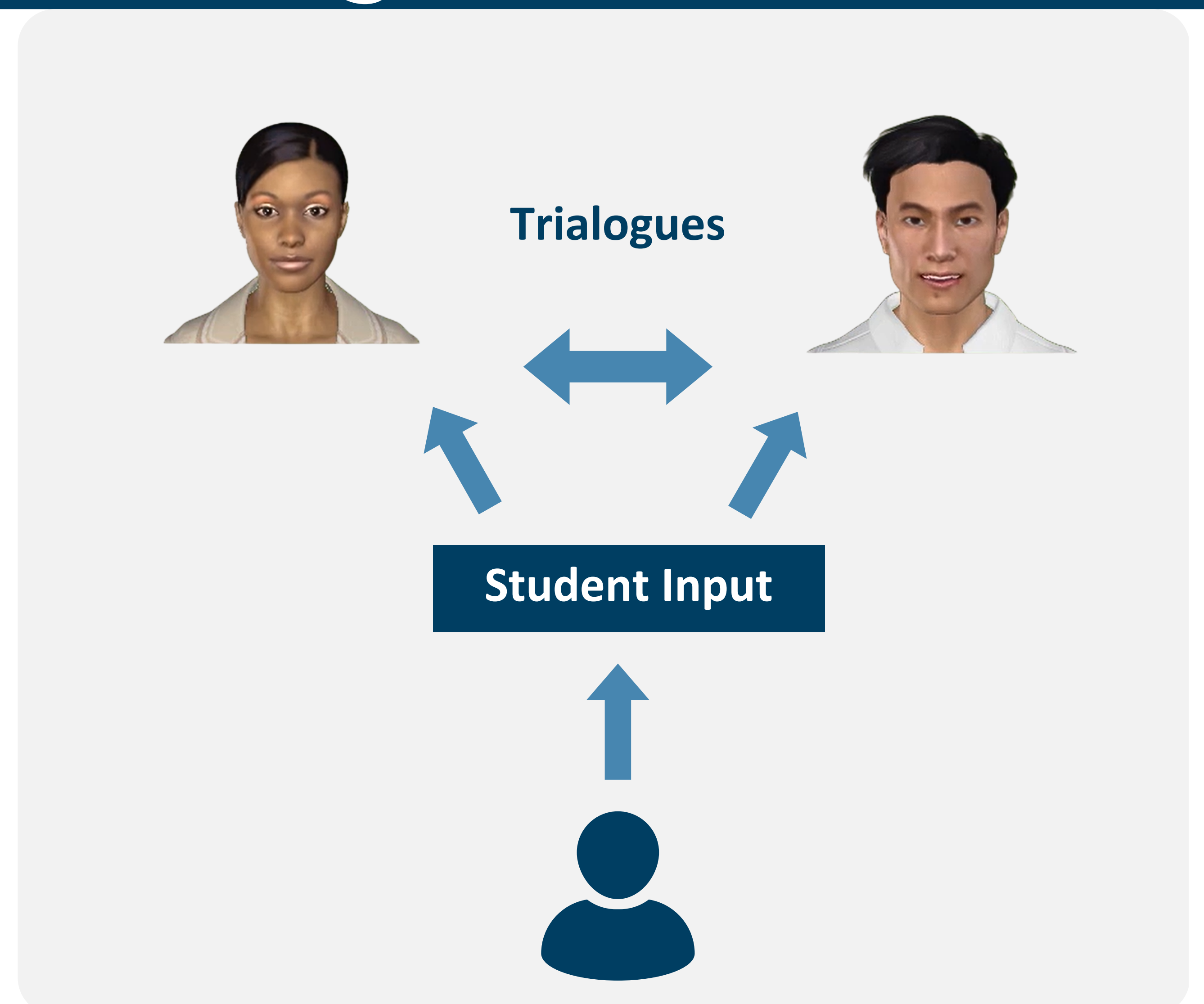
Future Impact

- Reading literacy is no longer solely a paper-print based medium.
- Learning and literacy are increasingly understood as a socially-mediated versus isolated, personal cognitive activities.
- Nonetheless, the learning sciences continue to support reading strategy instruction as an evidence-based practice for facilitating comprehension and critical thinking.
- Intelligent tutoring systems (ITS) can supplement classroom instruction, allowing more learners to access and learn as is convenient to their life situations, while still simulating agent-mediated social interactions.

What We're Learning

Generative AI (like ChatGPT) is changing the landscape of both reading and writing literacy, and how we design learning and instruction. Accessibility to a MultiModal world is becoming commonplace on Smartphones and other Digital Devices. One can listen to digital texts; one can dictate and speech will be transformed into text; one can translate written or spoken text into one's home language and back. Nonetheless, higher order comprehension, inference, and critical thinking skills remain essential to learning, language and literacy.

Our team is taking advantage of the power of Generative AI to retool the AutoTutor ARC system to better serve 21st century adult learners. This has included the generation of new texts, questions, feedback, and dialogic interactions with the digital agents.



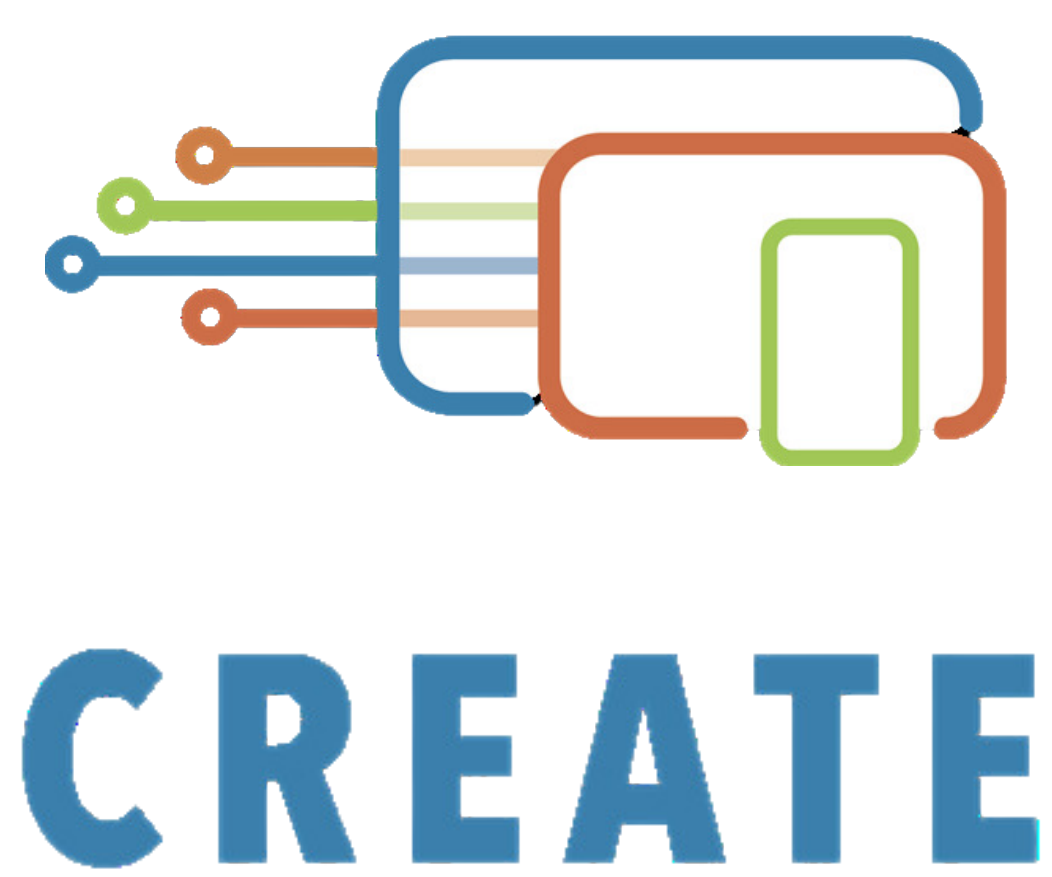
What's Next

We are planning to implement the new ARC system on a national platform hosted by Workbay, Inc. in the coming months. We anticipate rapid alpha and beta testing periods where we recruit a select audience of learners, instructors, and other stakeholders to pilot ARC and identify strengths and weaknesses in the system. We will then recruit for a larger trial to evaluate the promise of the new system with learners.

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Adult Skills Assessment Program (ASAP)

Team

Dr. Stephen Sireci, Dr. Maria Elena Oliveri, Dr. Javier Suárez-Álvarez, Dr. April Zenisky, and Dr. Jenn Lewis

Affiliations

University of Massachusetts Amherst

Our Research

The ASAP is a comprehensive system of literacy and numeracy assessments to support the academic and occupational goals of adult learners. It is designed to provide actionable information to help adults accomplish their academic and occupational goals. Our research includes co-designing assessments with educators, adult learners, employers, and employees; aligning assessments with CCRSAE and O*NET; and the use of AI in test development.

Future Impact

Our theory of action is that by providing information on numeracy and literacy skills, we will empower adult learners to improve their skills and help educators assist learners in accomplishing their goals. ASAP assessments are accessible for adults, culturally relevant, and provide detailed results. ASAP will continue to evolve to meet the needs of all learners, their educators, and employers.

What's Next?

The ASAP is focused on continuing to build CALM unit assessments with enhanced feedback, additional reading assessments, and assessments for specific workforce training contexts. We will soon begin scaffolded assessments where learners can get feedback while taking the test, as well as Spanish and other language translations of the assessments.

We are inviting teachers and learners to try out these assessments and give us feedback on what they like and what they would like to see improved. Learners and teachers will get immediate feedback, and can even see the items they took, the correct answers for those items, and on the CALM assessments, there is also feedback to understand the correct and incorrect responses.

To take one or more assessments, please visit www.asap.umass.edu, and use the password ASAP2024. The QR code will also take you to the login page.

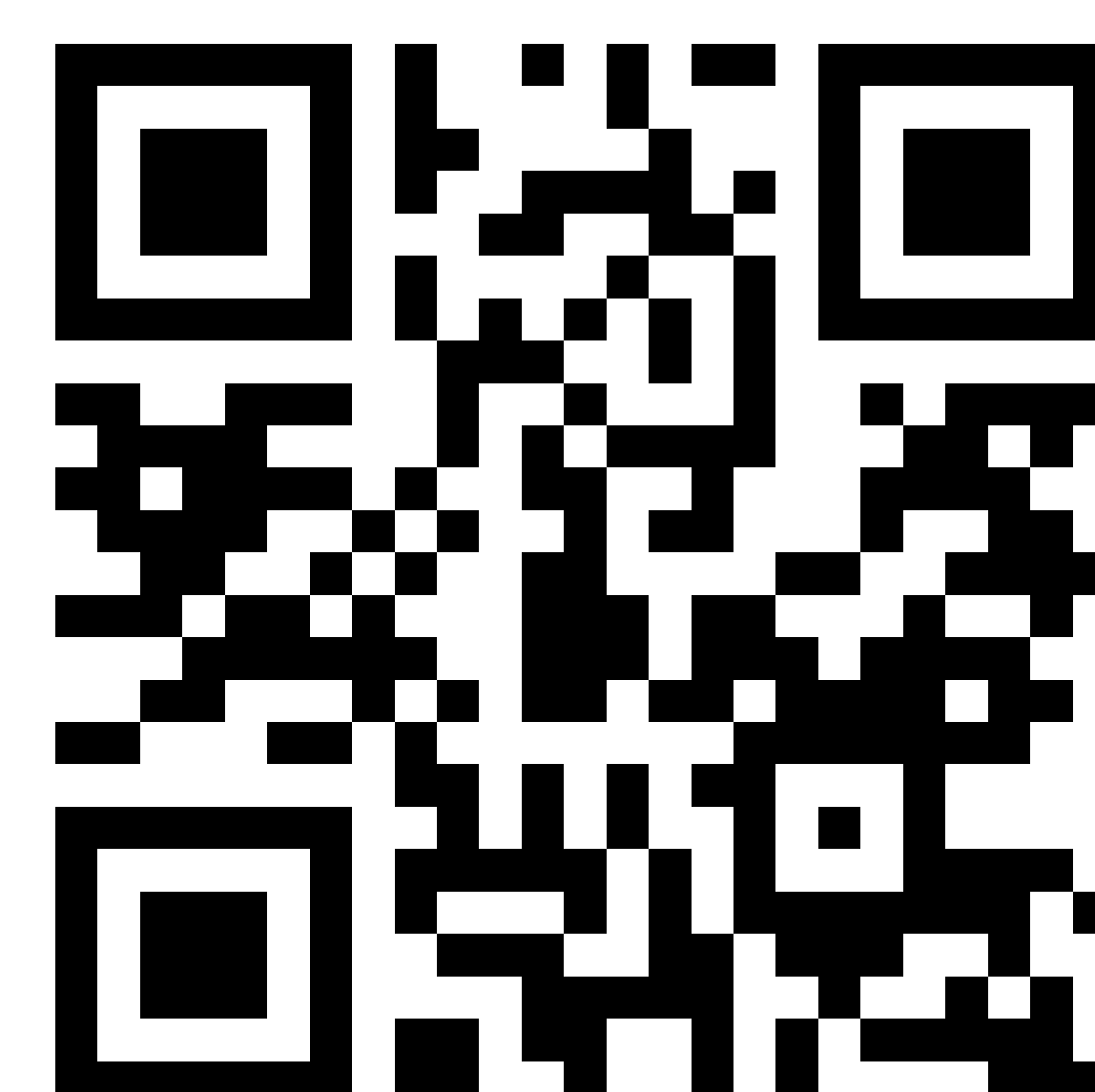
For questions or to provide feedback, contact UMass Professor Stephen Sireci at sireci@umass.edu.



What We're Learning

We have learned adult learners do not typically trust assessments or value the information they get from them. To address that problem, we allow learners to see the items they took on the assessment, as well as the correct and incorrect answers, with feedback provided on some assessments. We need to do more to “personalize” assessments and link assessment results to curricular next steps.

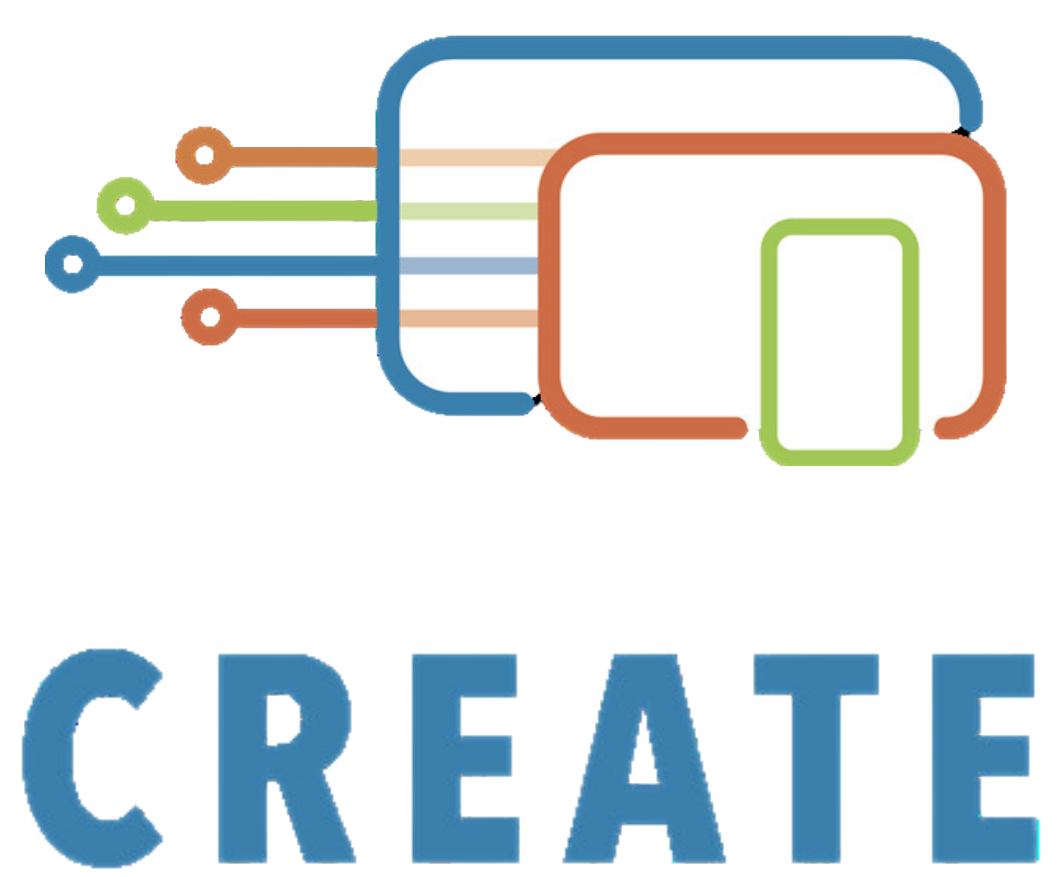
Learn more:
www.websites.umass.edu/asap/publications-and-products/



UMassAmherst

College of Education

Center for Educational Assessment



Content-Integrated Language Instruction for Adults with Technology Support (CILIA-T)

Team

Dr. Aydin Y. Durgunoglu, Dr. Daphne Greenberg, Dr. Elizabeth L. Tighe, and Theresa Sladek

Affiliations

University of Minnesota-Duluth, Georgia State University, Literacy Minnesota, and Northstar Digital Literacy

Our Research

Our team has designed an open access curriculum which integrates academic English instruction with U.S. history and civics content while incorporating digital literacy. This free curriculum is now open and available to the adult education community.

It is currently being implemented in intermediate and advanced ESL as well as preGED/GED classes (online and in-person) and we are continuing to evaluate the curriculum's effectiveness.

The curriculum has 16 modules offering detailed lesson plans to build on learners' background knowledge, foster academic vocabulary, encourage critical thinking and to apply technology in meaningful tasks.

Future Impact

Following its transition to open access in February 2026, the e-book has attracted 8000+ views. Our goal is to encourage educators to use all/part of this resource to help support both English learners and native speakers to accomplish their personal, academic and professional goals.



What We're Learning

Data collected from classroom observations, learner and teacher focus groups, and assessments of learner performance revealed the following key insights:

- The CILIA-T **curriculum has been very well received**. Learners found it relevant and interesting. They showed growth in their content knowledge and, most importantly, self-confidence.
- CILIA-T **benefits not only for English learners, but also native English speakers** working towards their high school credentials.
- The program's four-pillar approach – (a) background knowledge activation, (b) focus on academic English, (c) integration of digital skills, and (d) emphasis on deeper understanding and critical thinking – provides a **basic framework that can be used in other content areas**.
- Because adult learners often enter and leave programs due to competing life demands, **consistent classroom support and regular review of material are essential** to their progress.

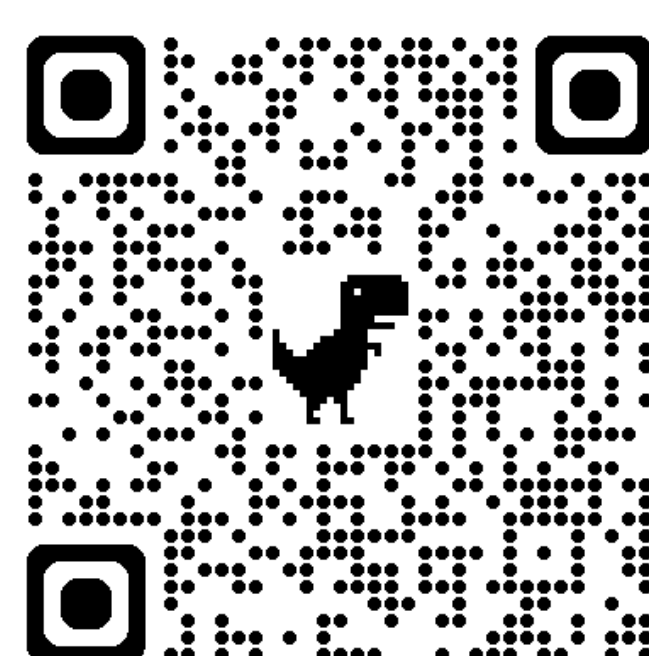
- For busy adults, **activities that address multiple goals at once** are especially effective.
- **Curriculum flexibility** – allowing instruction to occur in person or online – is extremely important, particularly in challenging situations, such as when in-person classes in Minnesota suddenly had to move online. **Online testing** is also more efficient.
- Rather than using detailed paper lesson plans, **teachers prefer the student-oriented lessons in the e-book**, with teacher guides embedded in the relevant sections of each module.
- Cost analyses indicated that the **program can be adopted easily across different adult education settings**. Costs vary based on enrollment levels, instructional format (online or in-person), and teacher compensation.
- Finally, we are beginning to identify the **factors that help adult education classrooms thrive**.

What's Next?

Following its transition to open access in February 2026, the e-book has attracted over 8,000 views. Our goal is to encourage educators to use all or part of this resource to help support both English learners and native speakers in accomplishing their personal, academic, and professional goals.

Learn more at

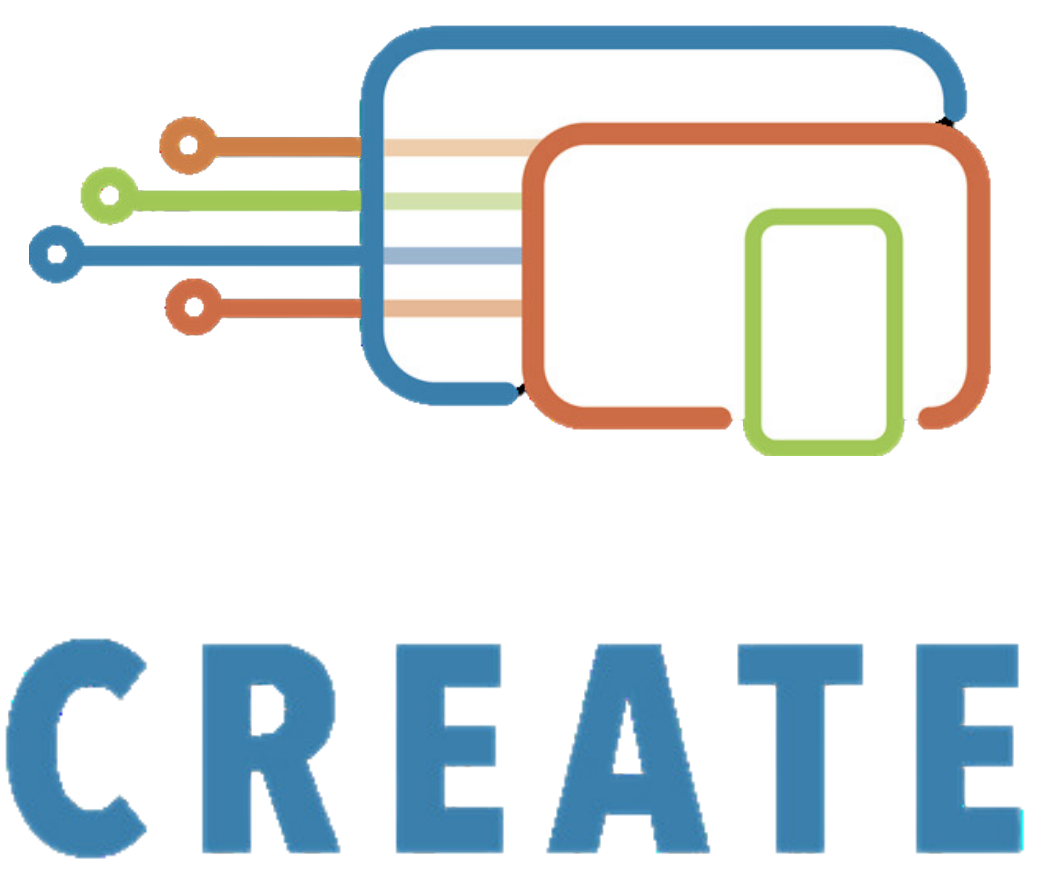
<https://open.lib.umn.edu/ciliat>



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Teaching Skills That Matter-SkillBlox Instructional Support Pilot (TSTM-SB)

Team

Dr. Stephanie Cronen, Dr. Jen Vanek, Dr. Neha Nanda, Jeff Goumas, Rachel Riggs, Dr. Amani Talwar, Adria Katka, Deeza-Mae Dorion, Arianna Bollens, Dr. Maya Escueta, and Gee Rege

Affiliations

American Institutes for Research® and World Education, a division of JSI Research and Training, Inc.

Our Research

The Teaching Skills That Matter (TSTM) initiative aims to help adult education teachers improve instruction by integrating skills and topics aligned with adult learners' educational and employment goals. Our pilot is an independent but complementary initiative that aims to support programs that want to expand implementation of TSTM-based instruction. We have enhanced SkillBlox, a free application, to help educators identify, organize, and share open educational resources aligned with TSTM skills and topics tailored to their students' needs and interests.

Future Impact

We aim to improve the quality and relevance of instruction by making it easier for teachers to leverage the TSTM framework and open and free resources in general. By supporting adult education teachers in using SkillBlox to share digital content aligned with TSTM topic and skills, we seek improvements in key learner outcomes, such as persistence in the classroom, and for learners to attain skills required in the workplace and that improve their economic mobility.

What We're Learning

Findings from a pilot study show strong interest in TSTM-aligned SkillBlox and clear momentum to build on. Approximately 74% of pilot teachers reported using SkillBlox to integrate TSTM into their instruction, and 45% reported using it frequently or always for that purpose. Most use was intentional and focused on one or two classes, suggesting that teachers are testing it carefully while considering students' skill levels and backgrounds. Communication was the most consistently integrated skill, often grounded in workforce preparation and digital literacy content. Teachers responded positively to professional development that emphasized modeling, peer learning, and real-time feedback. We identified key opportunities to improve SkillBlox, such as simplifying account setup and making content easier to find—practical changes that could increase adoption and long-term use.

At the same time, we have iteratively strengthened core features through early design and usability research. Improvements include learner login, teacher tools for tracking progress, and better search for activities and resources.



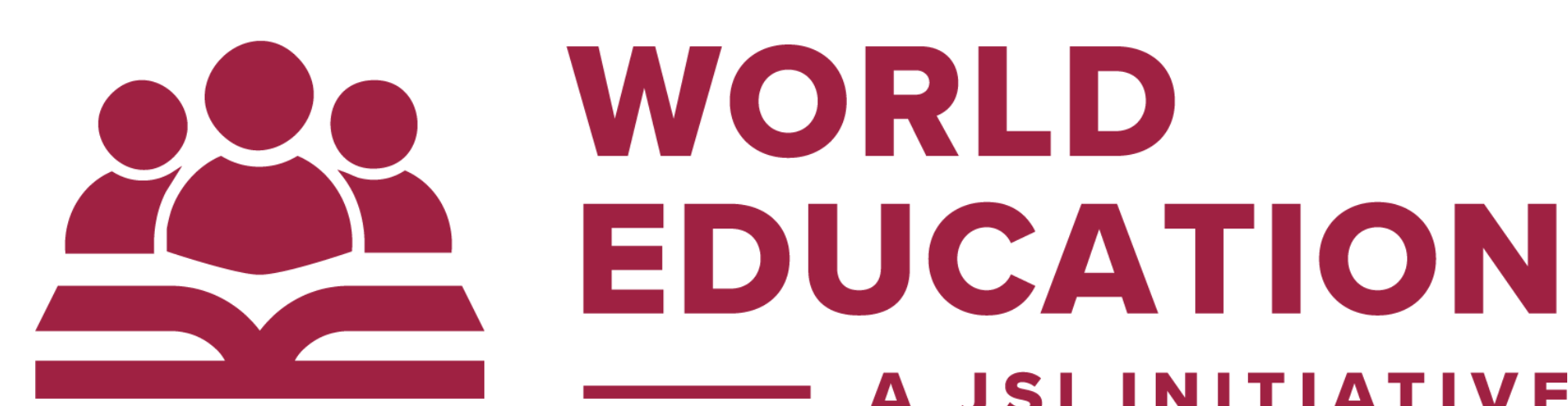
Next Steps

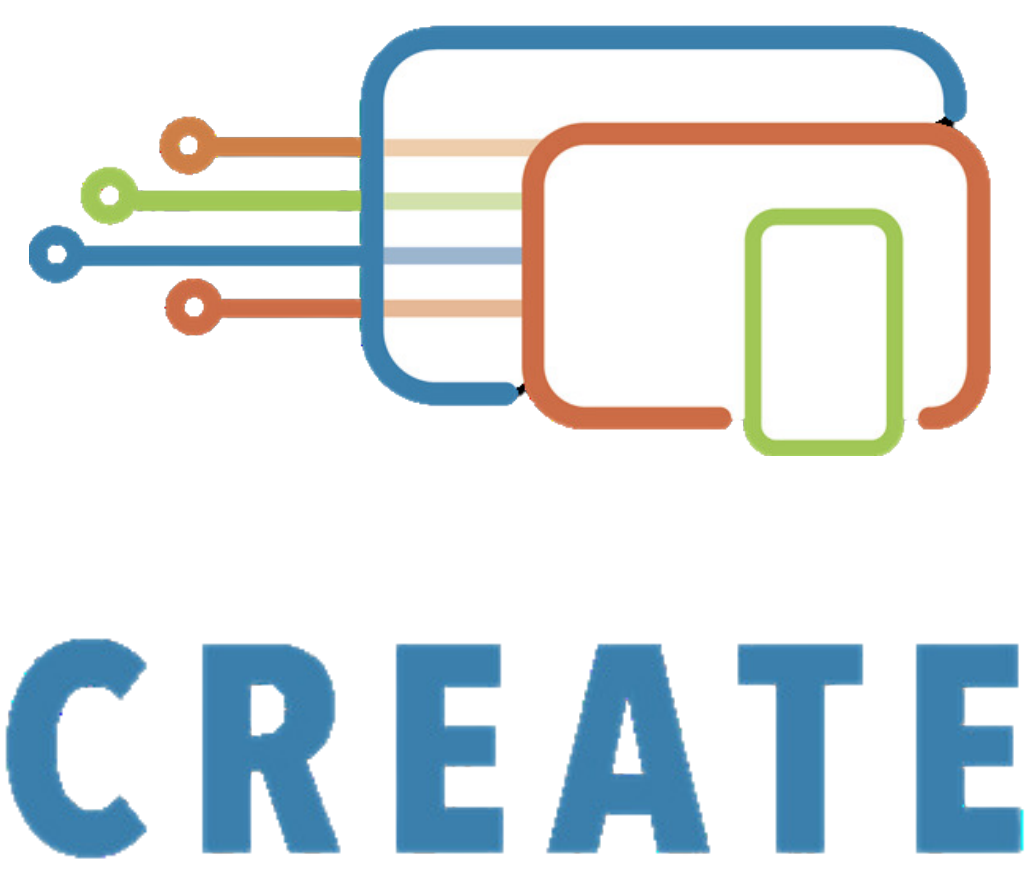
Next steps include analyzing changes in instructional practice, such as how teachers organize lessons, select materials, and engage students after using SkillBlox. Analyses will assess learner-level outcomes, including persistence and meaningful skill gains, to better understand whether and how TSTM-aligned instructional supports influence educational progress. In parallel, the team will finalize program-level cost analyses to inform decisions about sustaining and scaling SkillBlox. Findings will be shared through practitioner-focused reports, conference sessions, and CREATE Network resources, with a focus on practical guidance for instructors, professional development providers, and adult education leaders seeking usable, research-informed digital tools that strengthen teaching and learning.

We will also update SkillBlox features based on the initial pilot findings, focusing on simplifying the account creation process, enabling bulk upload and creation of learner accounts, and improving instructor tools for monitoring their learners' progress. Lastly, we will streamline how instructors find relevant activities, resources, and teacher-created Blox.

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Writing in Adult Secondary Education (W-ASE)

Team

Dr. Cynthia Puranik, Dr. Daphne Greenberg, Dr. Zoi Traga Philippakos, Dr. Charles MacArthur, Dr. Christine Miller, and Jennifer Martinez, MS

Affiliations

Georgia State University, the University of Tennessee, and the University of Delaware

Our Research

Argumentative writing using word processing skills is important for passing high school equivalency (HSE) exams, as well as for succeeding in postsecondary classes. The primary goals of the Writing in Adult Secondary Education project are to design and evaluate an evidence-based, technology-supported argumentative writing curriculum for adult learners. Products for the field will include our curriculum, a professional development delivery model, and open educational resources for instructors and students.

Future Impact

There is very little research on the best way to teach argumentative writing to adult education students. This study will contribute to the body of knowledge. Writing skills that leverage technology are critical for earning educational credentials, post-secondary education, employment opportunities, and navigating daily life. Products from this project will be available to both adult educators and learners.

What We're Learning

Despite reporting technology use for writing in daily life (text, email, social media, notes app), our participants have gaps in word-processing skills.

Compared to other adults, study participants have lower-than-average keyboarding skills (22 WPM vs 45 WPM).

Students place a high value on improving their writing and word processing skills.

For teachers, the pressure to meet measurable skill gains often sidelines writing instruction.

While many teachers think that instruction in writing skills is important, very few have received PD on it.

Teachers appreciated our in-depth PD, step-by-step teacher's guide, and class posters. Both teachers and students liked the student binders.

Teachers say they lack time to prepare for the writing lessons. Instructional feedback and coaching was new for them.

Students were highly engaged with our curriculum and demonstrated gains in their writing quality and quantity.

What's Next?

1. We will continue to implement our curriculum while observing Business-As-Usual classes.
2. We will analyze the data we collect.
3. We will describe our research findings in journals and conferences targeting both researchers and practitioners.

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