

Tasked with creating an engaging online course for pre-service teachers, D Teo Keifert leveraged Engageli's innovative learning platform to overcome challenges associated with traditional online learning tools. By utilizing Engageli's active and collaborative learning capabilities, Teo successfully fostered increased student engagement, facilitated collaborative sense-making, and maintained high levels of interaction, resulting in a dynamic and inclusive classroom. The switch to Engageli significantly enhanced the learning experience, supporting both undergraduate and graduate students' learning outcomes.

## **Background**

#### **About the University**

The University of North Texas (UNT), located in Denton, Texas, is a public research university established in 1890. As one of the largest universities in the Dallas–Fort Worth metroplex, UNT offers over 150 undergraduate and graduate degree programs. It is designated as an "R1: Doctoral Universities – Very high research activity" institution and serves as a hub for innovation and digital learning. UNT's commitment to educational excellence and cutting–edge innovations makes it an ideal setting for exploring the impact of intentional learning technologies on the teaching and learning experience.



"At UNT, we're committed to expanding access to education for those who might not naturally find their way into college. We believe technology can play a crucial role in leveling the playing field, making education more inclusive and equitable. Flexibility in learning is essential as we recognize that today's students lead different lives and have unique expectations compared to the past. That's why we support platforms like Engageli, which are intentionally designed to enhance both learning and teaching experiences."

#### -Adam Fein, Ph.D.

Vice President for Digital Strategy and Innovation and CDO



# INSTRUCTOR D Teo Keifert

Learning Scientist, Researcher, Assistant Professor



D Teo Keifert (they/them) is a learning scientist, researcher, and assistant professor in the College of Education at the University of North Texas. With a PhD from Northwestern University and a background in teaching middle school math and science, Teo's work includes developing innovative, ethically – grounded research methodologies and designing transformational learning experiences for pre–service and elementary teachers.

#### **About the course**

Teo teaches an eight-week course for pre-service teachers, during which they explore foundational learning science theories and how to connect these theories to real-world scenarios. The course also targets high school students across Texas who are considering a career in teaching. By completing this course, high school graduates can gain credit towards the full certificate program at UNT. As Teo noted, "Connecting the theory to what they see happening in the real world is something I don't think we often teach teachers, even though it's deeply necessary for the work." In addition to the pre-service course, Teo teaches a graduate level course on "Research Methods as Context for Learning." This PhD seminar is designed to help students understand and apply various research methods creatively and flexibly.



## The Challenge

#### Accessible teaching and learning

While awaiting a motorized wheelchair that would enable Teo's in-person teaching, a unique opportunity arose to teach graduate level courses remotely. Online programs at UNT traditionally focus on self-paced (asynchronous) learning. Live, synchronous courses are not always included in program offerings for PhD students. Dr. Kiefert was eager to tackle this challenge.

#### Active, engaging learning online

Concurrently, Teo was tasked with creating an entirely online version of the pre-service teacher course to support the recruitment of students from high schools. "We were asked to create the internet-only based version" Teo explained. "But the long duration of the planned live sessions was a challenge. The course officially is three hours at a time, and that can be a really hard amount of time to sit in front of the computer for most people."

For each course and student profile, the challenges to enable engagement and participation were different, but crucial for the success of the course.



#### Focus on learning communities

To foster a sense of community, the course design emphasized learning communities that facilitate small groups, both in person or online. Teo highlighted the importance of intentional design in building community.

"A big part of my work as an instructor is to demonstrate that growing a community is a matter of design.

A matter of being purposeful. Not where you are, but how you connect."

-Teo Keifert

However, maintaining and monitoring these learning communities in an online environment was challenging. Traditional video platforms did not provide the necessary tools to ensure effective engagement and interaction. "When I sent them off into groups on Zoom, I had to pop in to know what was happening. But my presence disrupted their 'safe space'. Without joining each group, I just lost them. I had no idea what was happening without being there,"

### The Solution

#### **Engaged, online learning with Engageli**

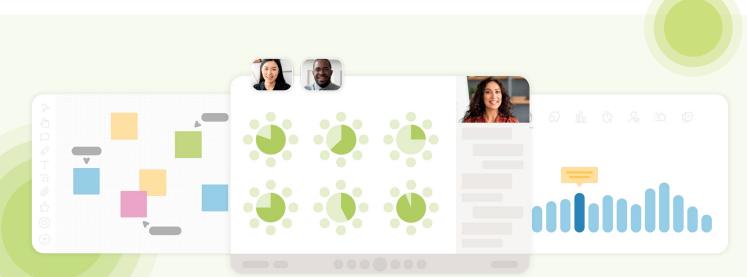
Engageli provided the ideal solution for creating an engaging and accessible online learning environment. The platform's features supported Teo's focus on learning communities and active engagement. "With Engageli, I can detect when a table goes silent, pop over there after a minute or two and find out whether they are all just working on their documents or if they are actually stuck and need help. I feel like they're engaging in more meaningful ways."

Teo mentioned with other video platforms there is an imposed hierarchy: you are either the host or you are a participant. Engageli allowed for a more inclusive, collaborative, and equitable space. "I expect my graduate students to facilitate discussions and lead activities. With Engageli, students can easily take the lead, share content, drive a discussion. It's that freedom that allows it to be more like an actual classroom. where contributions are more equitable, and multi directional. All other virtual platforms I've used are hierarchical and assume that the instructor has all the knowledge, and will transmit it to the students. This is a very outdated conceptualization of learning. We've been trying to disrupt that for decades. Engageli doesn't assume that I'm the only one worthy of speaking."

#### Collaboration and sense making

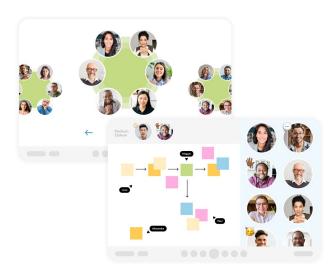
The Engageli platform enabled various collaborative activities, such as using whiteboards and table discussions. Teo explained, "The goal was for them [the student teachers] to see how they could do collaborative work using these tools in their own classrooms later. I was modeling some of it, but always with the purpose of sensemaking and collaborative learning together. They naturally picked up on it." The ability to contribute and participate anonymously also encouraged students to share their thoughts more freely. "It was so easy to facilitate a digital collaboration activity like sharing your thoughts on a whiteboard. It was just like asking them to write a post-it note in person." Teo described.

"When intentionally designing for collaboration, Engageli offers a lot more dimensionality, and allows me to monitor it. Much like I would quietly move around a physical room and eavesdrop a little, just to figure out where the groups are in their learning."



#### **Usability of Engageli**

Despite initial concerns about navigating a new platform, in particular among the undergraduate students, Teo and students found Engageli intuitive and easy to use. "For me, it wasn't very hard. It was mostly navigation, figuring out how to do what... Once you realize how it works, it's very intuitive, because it so closely mirrors what a physical classroom is like. Sitting at an Engageli table is almost like sitting next to your peers in a physical classroom." Teo explained.



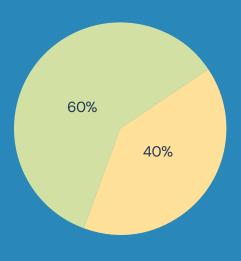
## The Impact

#### Realtime engagement analytics

The use of Engageli resulted in significantly higher levels of student engagement. "They're much more active. We did an analysis that shows that for every hour of me speaking, there's an hour and a half of student speaking time. The data can show us that in one class session we had an aggregate of four hours of student engagement. That's incredible and we couldn't get it anywhere else."

Teo felt more confident in the students' engagement and learning outcomes. "When I see those ratios, I know they're actively engaging more than they are passively listening to me. They are working together more than they're distracted. And that is where learning happens. When they're collaboratively wrestling with ideas, when they're trying to make connections, where they are sharing their perspectives with their peers."

Engageli effectively boosts student activity, engagement and collaboration.



- Student speaking duration
- Instructor speaking duration

#### Diverse channels of participation

Teo described the difference between undergraduate and graduate students, when it comes to online learning norms and behaviors, sharing the following, "The graduate students tend to join with their cameras on and more easily participate; Undergrads usually have their cameras off. Even when I try to normalize that kids may come through or partners or pets, they still prefer to be hidden. And that's ok. But it is challenging when it comes to engagement in class." "What I like with Engageli is that, even for those undergrads, I can see they are active because engagement is defined in a much richer sense. Not just camera-on and speaking. Written chat counts, table talk without me present counts, questions in the Q&A count, even writing in your digital notebook. Through that green engagement indicator I can clearly see that they're active."

Teo's experience with Engageli in their classes demonstrated the power of enabling an engaging, collaborative, and inclusive online learning environment. Engageli not only supported Teo's teaching goals but also enhanced the overall learning experience for both undergraduate and graduate students.



