The Comprehension SEEDING project facilitates more effective classroom engagement and deeper student learning by providing a Human Language Technologies (HLT)-enabled web application that teachers can use to evaluate student knowledge in real time.

Students submit natural language Self-Explanations in response to instructors’ open-ended questions via mobile devices.

HLT clusters semantically similar responses in real-time and provides the instructor with the most representative response from each cluster to facilitate Enhanced Discussion.

HLT also enables automated Inquiry Generation as the final SEEDING component.

The Companionbots project is focused on developing a new class of spoken dialogue-based, emotive robot companions to facilitate in-home therapeutic healthcare for elderly patients suffering from depression.

Its primary research focuses are on dialogue technologies, question & answer generation, and physical & mental health monitoring.

The project features multimodal input and output, currently making use of tools such as Kinect™ and Skype™. The Companionbots will utilize critical context dependencies, user models, and interaction history.

Future work on the Companionbots project will include massive-scale data mining over the information collected.

In addition to developing the SEEDING system, this project involves training and supporting over 1700 users.

Looking for outstanding Ph.D. applicants interested in Machine Intelligence and Human Language Technologies. Contact Rodney.Nielsen@unt.edu