A Gaze-Based Attention-Aware Technology to Address Mind Wandering during Learning in Classrooms

Stephen Hutt
Kristina Krasich
James R. Brockmole
Sidney K. D'Mello

Mind Wandering
• The unintentional shift of attention away from the current task towards internal task-unrelated thoughts [1]
• Happens frequently in learning technology [2]
• Negative relationship to performance

Design Activities
• Developed a series of Design Constraints to protect learning experience
• Conducted Interviews With 25 students
• Focus group with 3 High School Teachers

Implementation

Results
MW predictions before and after interventions

Conclusion
Our findings show that interventions can be successfully implemented in this environment and reduce MW, thereby presenting exciting new opportunities to assist student learning both in and out of the classroom.

We designed and implemented interventions to combat mind wandering in an intelligent tutoring system used in classrooms.

References