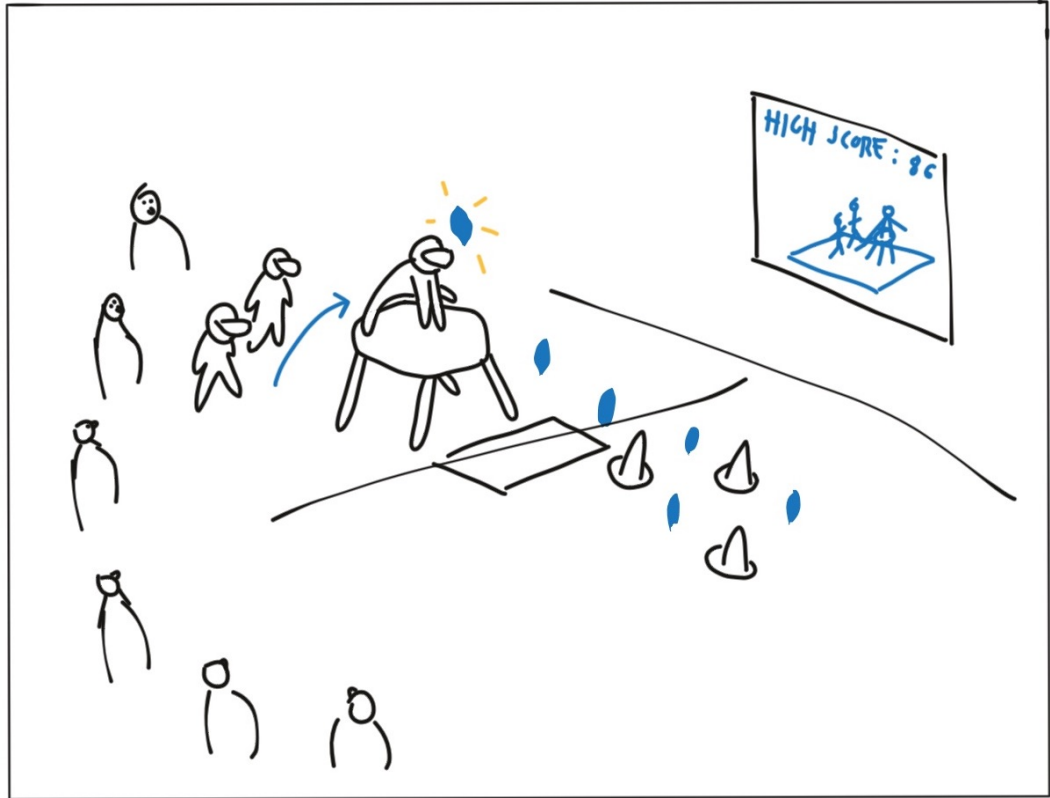
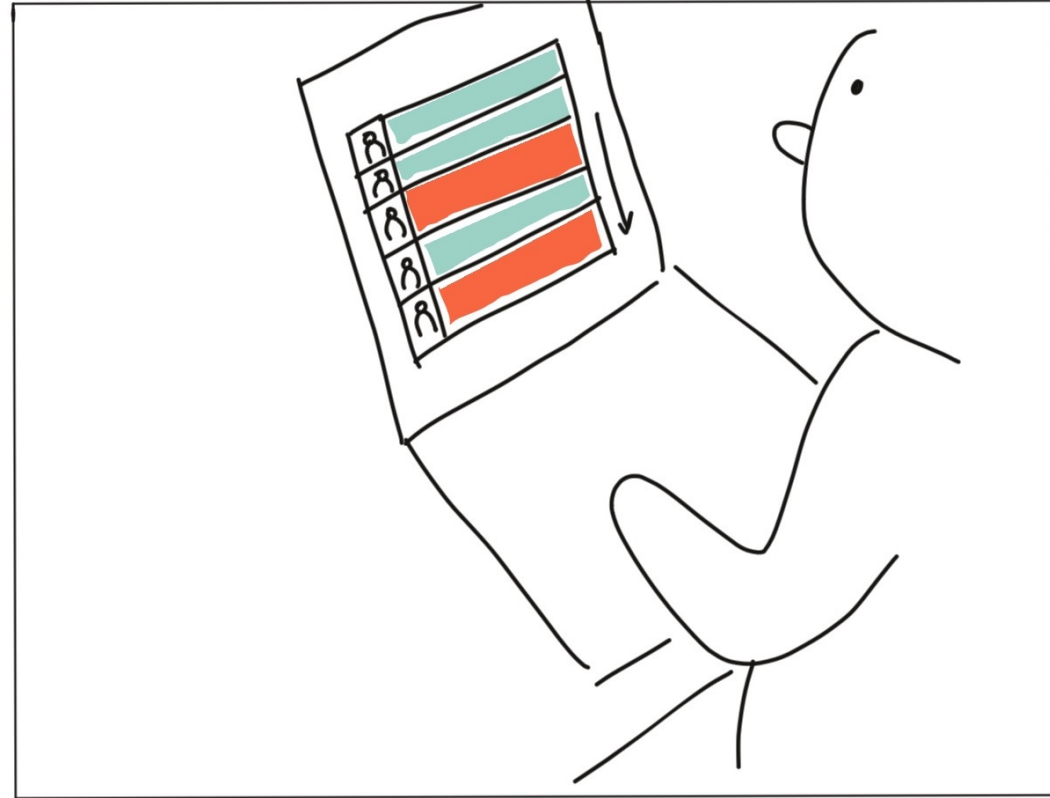


FUTURE CLASSROOM SCENARIO



In the future classroom, learning is enhanced with AR to create more engaging learning experiences. This scenario explores a combined math + gym class. Teachers design the AR world and tasks. Students can solve geometric puzzles in groups while getting some exercise in a mathematical treasure hunt game.



To inform the design of group activities and grading of student performance, the teacher gets engagement data from the students:

- **Individual engagement metrics** from eye trackers, body movement, task performance
- **Social engagement metrics** from proxemics data indicating the interactions between students.

CHALLENGES AND OPPORTUNITIES

Opportunity and design challenge

Teachers get new tools to create more socially engaging and interactive learning experiences for their students. How can we design for teachers to facilitate such learning?

Ethical and privacy discussion

Teachers can analyze tracking data to see how well groups perform, which students need additional support, how to regroup students for better individual outcomes, etc. How much tracking data should the teacher have access to? To which degree are students involved?

Ethical and social concern

Teachers can manipulate how students move and engage with each other by designing the activity, the AR world, and what is presented to each individual student. To which degree should a teacher be able to manipulate the social dynamics among students?