Co-design research with children is a field that continues to find new ground and expand as it explores new, and more effective ways to design. As children become more enveloped in a world of technology and video games, it follows to leverage these kinds of experiences for use in our design toolbox. In addition, continuing to explore how to include a larger global audience through distributed co-design can advance the design process.

We used an open-source clone of Minecraft called MineTest and developed an online world specifically for co-design. We used the tool in a co-located environment and then later distributed sessions took place from each participant's home with positive results.

To practice with the environment, the team constructed their own buildings. Each team member used an individual computer but were co-located in one room.

One way to encourage teamwork was to establish a town square in the middle of the village. This area became fully illuminated when a number of team members were present and was the central meeting place for design sessions.

The main design session for the week was to envision a library that would help other children who became part of Kidsteam at a later date. The group communicated designs by labeling sections and artifacts with their notes.

Future Directions

Because the KidCraft world required client software, some team members were not able to participate. We have begun developing a web-based client that offers the same affordances as the Minecraft environment.

Conclusions

This study provided positive results in three ways: The environment supported synchronous co-design. The environment supported asynchronous co-design. The environment supported children who could not otherwise attend design sessions.

The first two are self-explanatory but it is the latter that is most important. These technologies enabled a child member of the team who had stopped coming to design sessions because of a parent's work schedule change to fully participate in sessions with the team.

This work bodes well for future technology-based environments that support distributed co-design and can increase the number of voices in the design process.