KidCraft: Co-Design within a Game Environment

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Overview

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 a 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.

Kidsteam Village

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.

Town Square

One way to encourage team work 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.

Co-Design Library

Minetest 0.4.9

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

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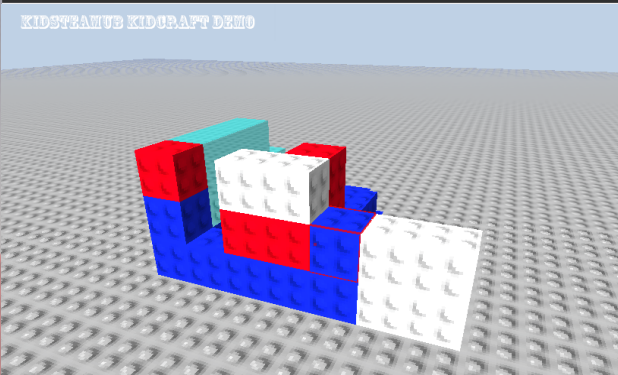
Because the KidCraft world required client software, some team members were not able to participate. We have begun developing a web-based client that offers the same affordances as the Minecraft environment.

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.**