

Microwave racing: answers to questions

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What I tried successfully

We tried using the concept of ‘microwave racing’ as an interactive, hands-on activity to engage school-age children with concepts in HCI and interface design. This activity conveys the idea that clearer interface design improves how people use machines, and also helps to minimise errors. The ‘race’ situation also helps show participants that pressure to perform can hinder usability, which helped us explain our research project on medical devices used in hospital situations.

Changes that I made

Microwave racing was originally conceived as a video for the 2011 CHI video night. In the video, participants were filmed separately trying to set their own microwaves. For the hands-on activity, we put two microwaves side-by-side and ran them simultaneously, we expected participants to set the microwave without help (even though most were unfamiliar with the interface of these particular machines), and participants were given the microwave popcorn they had cooked.

Readings I found interesting

[if ‘readings’ is meant to indicate interesting references]

- The original video for microwave racing is at <http://youtu.be/Bzy5hVvbei8>

[if ‘readings’ is meant to indicate interesting ways of interpreting the activity]

We conceived the microwave racing as a novel way to get children to play with interface design, but often adults were just as enthusiastic. For adults, we were able to describe the differences between walk-up-and-use systems and expert systems, and discuss the activity as an investigation into the ways microwaves have elements of both.

Tips and strategies I found useful

Some children were nervous about ‘getting it wrong’ and ‘losing’ the competition. We found it important to convey to the children that we were trying to test the designs of the microwaves, not their own competence. If children struggled with the task, it was a useful opportunity to ask them what they might say to the microwave designer afterward.

What I found challenging

It wasn’t only the participants who had never used our microwaves before. At the beginning of the day, neither had the team members! As a result, we had a bit of trouble figuring out how long to cook the popcorn for, and one microwave had a problem with overheating until we figured out how to correct it.

What did not work for me

We were disappointed in the number of response forms we received back from participants. We think this is because we made too many handouts overall – a feedback sheet, two prize quizzes and an information sheet about designing interfaces for medical equipment.

What would have helped me

As this was a trial of microwave racing as an activity, we only bought two microwaves to use. In the end it proved very popular, and so participants had to queue for a long while in many cases, without much to do or any facilitators to talk with. More microwaves, more facilitators and activities for those queuing to race would help in future. Also, it appears that new microwaves need a 'warm-up' period before they start to cook optimally. Therefore, we recommend using the microwaves prior to such an event.