

PROJECT PROPOSAL

COURSE: CS 260

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PROJECT BACKGROUND

I am working on a project called MILLEE, which aims at using cellphones as a medium of teaching English to underprivileged children in emerging economies like India. Our process involves design and development of educational Cellphone games. The next step usually is to deploy these games with a group of children in India, and get both quantitative and qualitative feedback on the design. The process is iterative, which means that once we have the feedback from our users, we revisit the designs and modify them accordingly.

In the past we have done in class deployments, where we had our own local staff oversee the progress of the children with the games we develop. However, this semester we have a study underway, in India which is aimed at studying the effect of cellphones in an out-of-school setting. Moreover, we have lend out about 20 cellphones to an equal number of children and have left them to their free will, in terms of the usage of the Cellphone. However, we have installed data loggers in the background that keep logging the progress and usage metrics of a child handling a particular Cellphone. My work for this semester would be to write a data log analyzer for these logs and come up with a conceptual model of the learning process of underprivileged children in countries like India.

PROCESS

To be able to accomplish the above mentioned project idea, I would be working at two levels, theoretical and practical. On a theoretical level the research questions would be:

- Critiquing the current MILLEE applications from Piagetian and Vygotskian perspective.
- Constructing a model of the learning process (for such kids).

However, on a practical level, this would involve coding the data log analyzer and using the same to visualize metrics like:

- Daily cellphone usage.
- Time on task.
- Progress on task (visualization through graphs).

EXPECTATIONS FROM THE COURSE

The reason of picking this topic as a class project for this course is to be able get a better understanding of the following issues:

- How do Piagetian and Vygotskian perspectives apply to underprivileged children in the developing world? Conflicts/deviations/similarities of any sort might all be interesting to study and build upon.
- To see a correlation between theories on human/child learning and real world interfaces designed for them. It would be interesting to see how these theories can be used to improve the usability of such interfaces.

SUCCESS

Success in the course and the project would depend on some goals being reached. In the short term these goals are:

- Constructing a model of the learning process.
- Comparing and contrasting them with existing theories.

In the long term, the goal would be:

- If MILLEE as a research group or someone else designing for such communities can take inspiration from the project.