Online Experiment Platform for Representations in Distributed Cognitive Tasks

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In this project, I will develop an complete online experiment platform for representations in distributed cognitive tasks. The biggest advantage is that online platform will collect large amount of detailed data easily and accurately. Based on these data, I hope I can do more accurate analysis on the theory to test hypothesis. What's more, I am interested in designing a new comparison experient with the similar experiment setting.

Now one idea in my mind is to research how quickly people improve their speed to solve the same puzzle under the different representations of the same game. The question I want to answer is that how external and internal representation influence the speed of learning. Specifically, I would examine the results of one user after playing the multiple times and to see what difference of improvement happens between two different cognitive representations.

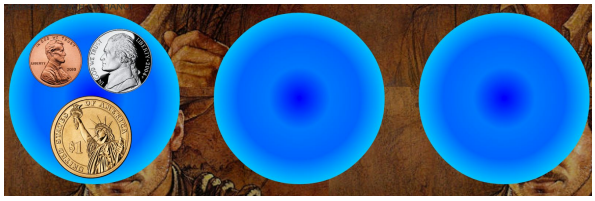
Besides that, I will do user interface design for the web service and try to make it easy to use. To make sure the stability, I also need to implement usability testing.

Here is *Some details for the online experiment platform:*

1. Timer -- Record how long user spend to finish task
2. Add a ranking system -- Ranking will motivate users to play as more as possible.
   - Ranking based on user's own speeds in multiple times
   - Ranking based on all the users' speed
3. User Account System -- Gmail or other account login (Create user identification)
4. Server -- Google App Engine offer free service for limit usage of resources
5. Database System -- Store and organize well-structure data for our experiment

Here is two experiments:

- Three coins version -- All three are internal rules (Already Deployed)



- Tower of Hanoi Version -- Two internal rules and one external rules