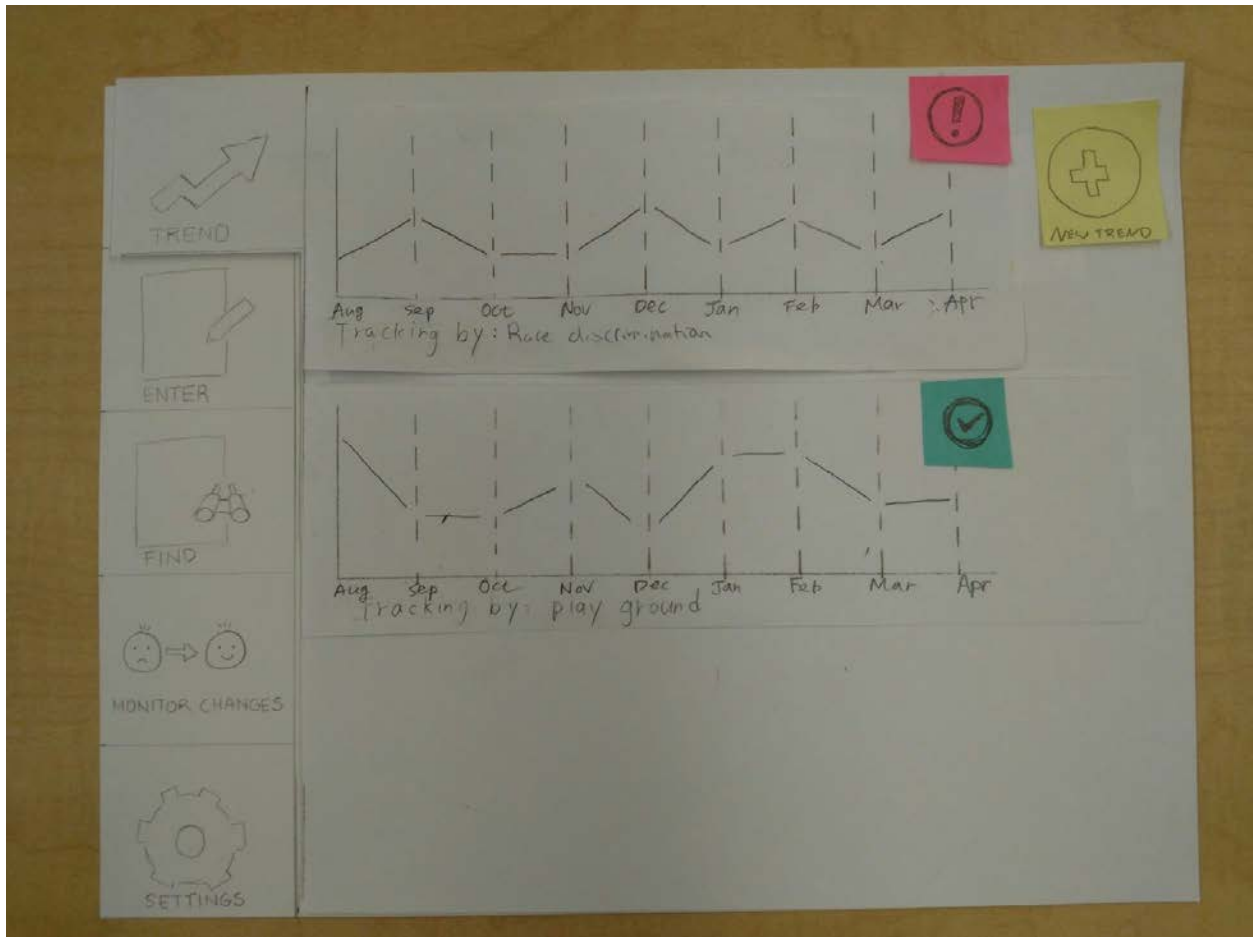


Heuristic evaluation

a. Usage tutorial needed

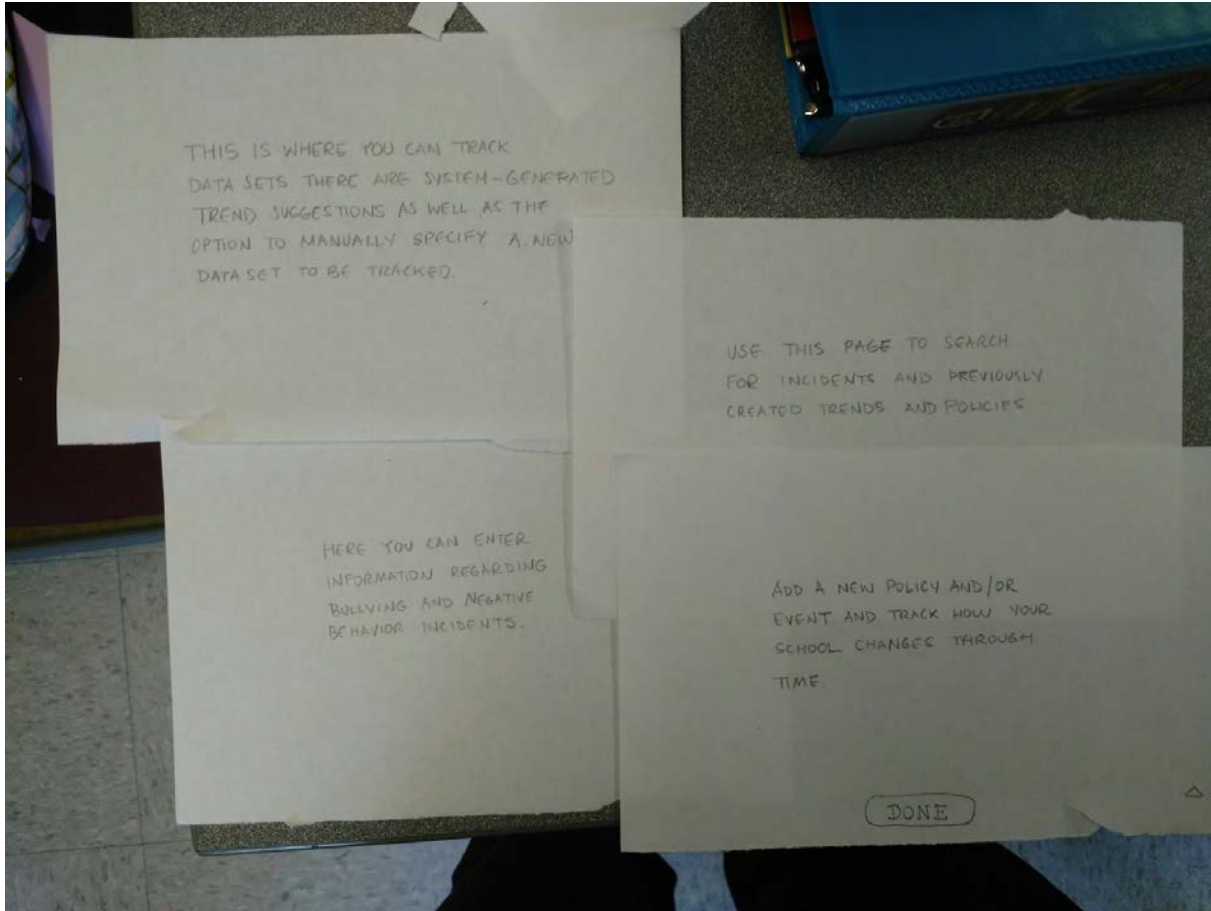


Pre-change image of the relevant portion of the prototype

Issue identified: Using the interface for the first time, user was unsure about how to proceed.

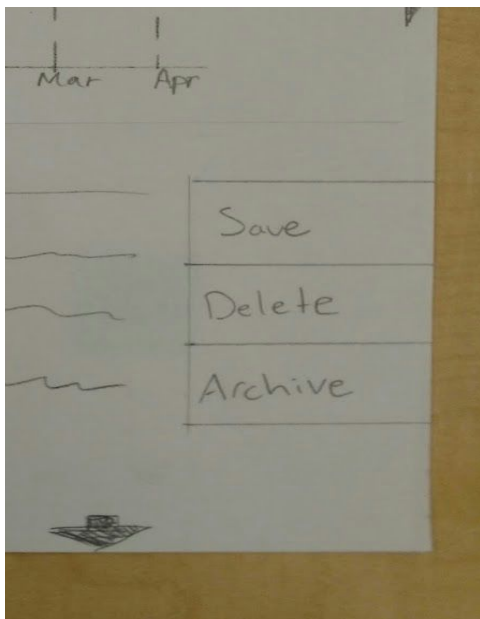
Heuristic violated/severity: Help and documentation / 2

Change(s) made: Added a tutorial at the beginning of user session to explain functionality.



Post-change image of the relevant portion of the prototype

b. Clarification of "Save" needed

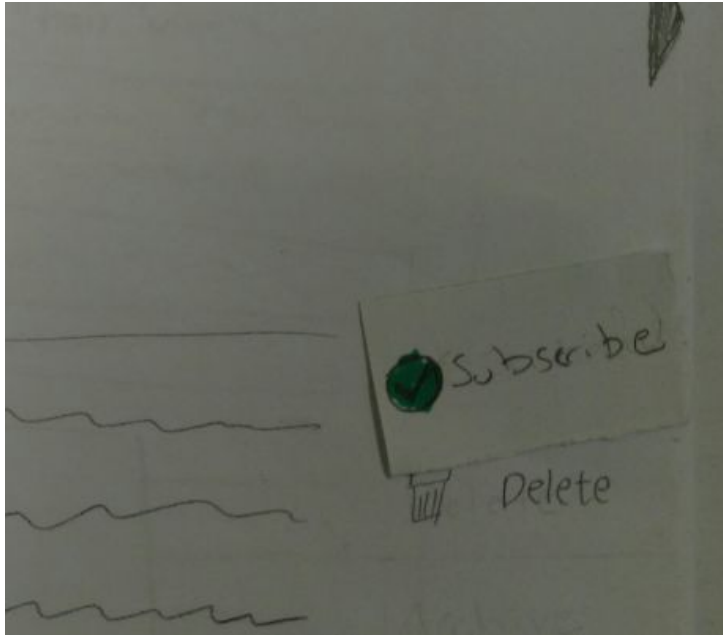


Pre-change image of the relevant portion of the prototype

Issue identified: User was confused about the functionality of the button “Archive,” as it was not a consistent function in every page. Further, “Save” button was misleading to the user.

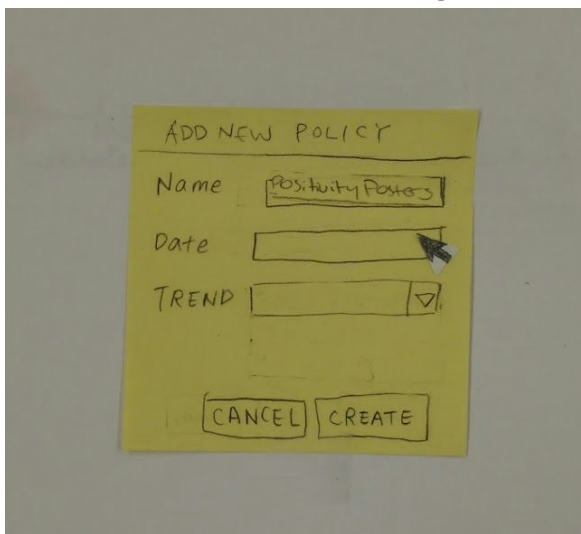
Heuristic violated/severity: Consistency and standards / 3

Change(s) made: Removed the depreciated “Archive” function and renamed “save” to “subscribe” to better represent functionality.



Post-change image of the relevant portion of the prototype

c. Multiple trend monitoring wanted

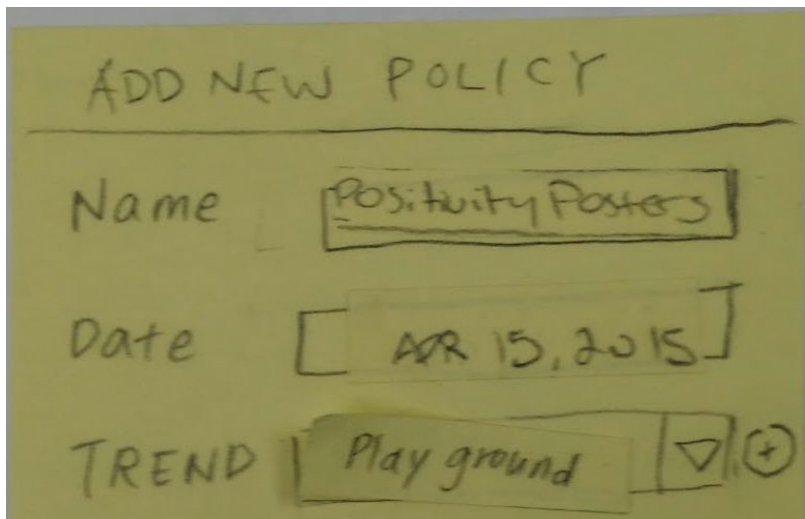


Pre-change image of the relevant portion of the prototype

Issue identified: User wanted to be able to monitor multiple trends when creating a new policy.

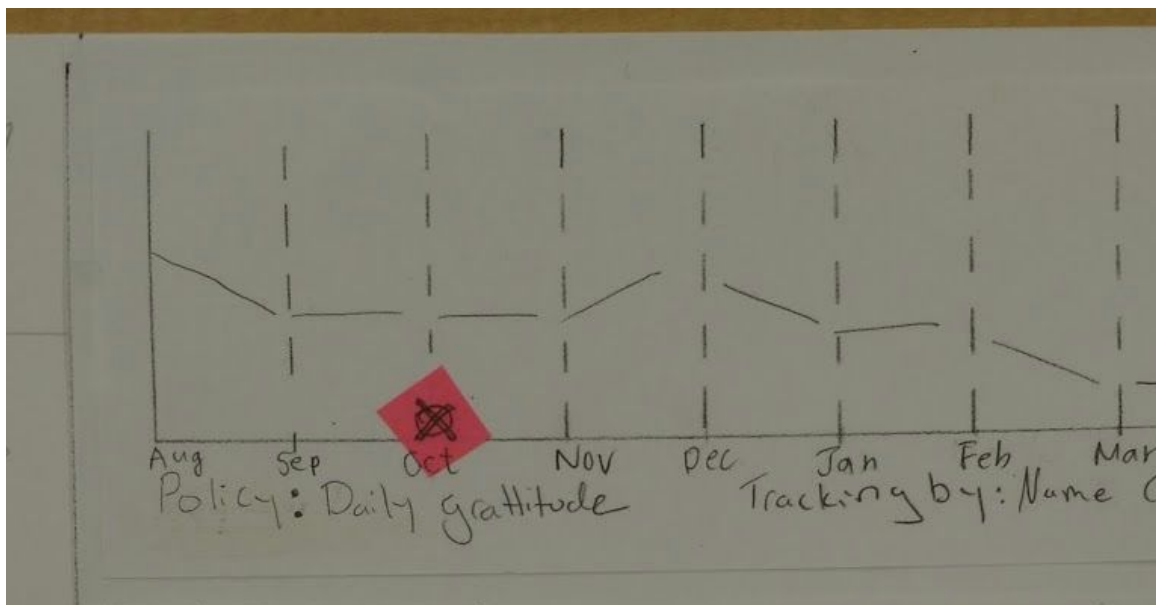
Heuristic violated/severity: User control and freedom / 1

Change(s) made: Added the ability to monitor policies effects on more than one data set. Users accomplish this goal by pressing the “+” button next to the first selected trend to open another trend selection boxes.



Post-change image of the relevant portion of the prototype

d. Y-axis label needed

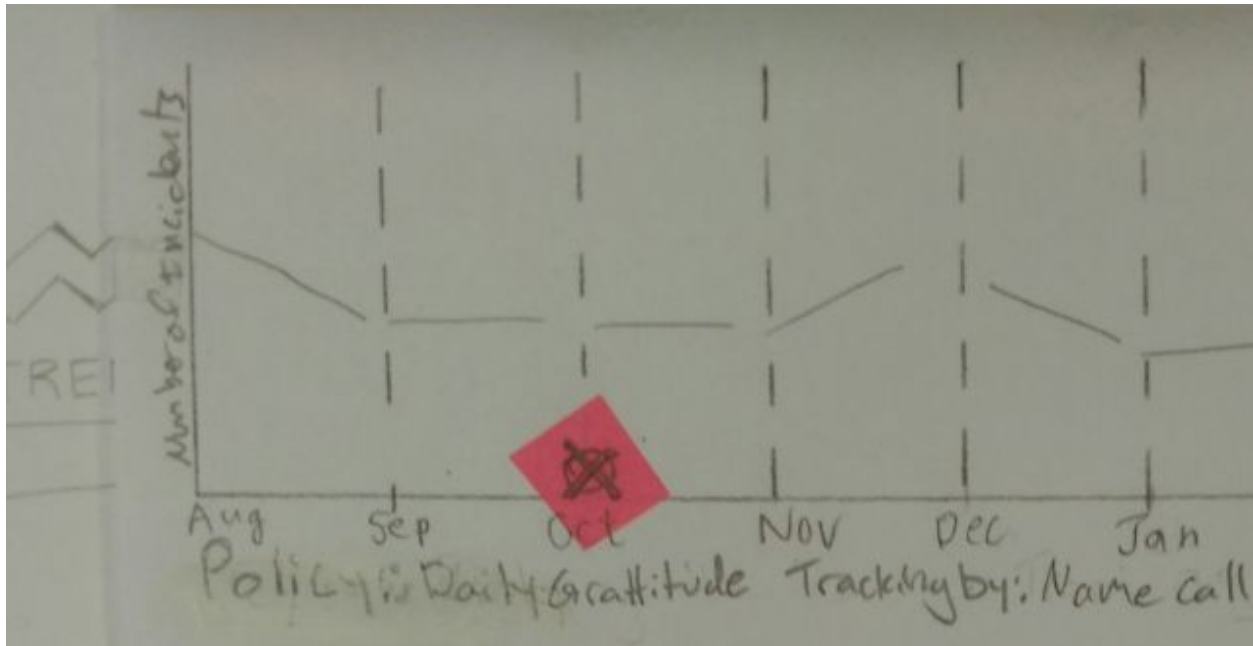


Pre-change image of the relevant portion of the prototype

Issue identified: User did not understand what the y-axis on the graphs were for.

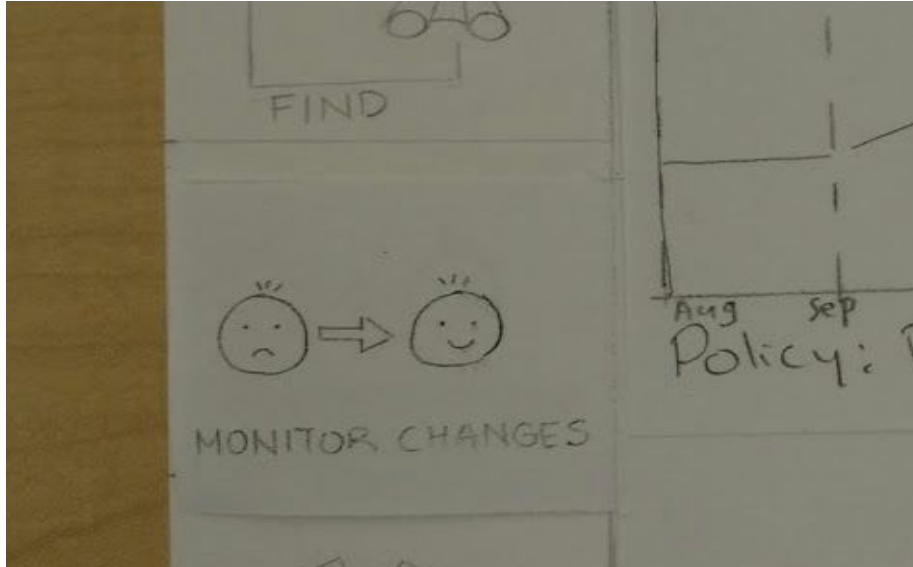
Heuristic violated/severity: Match between the system and the real world / 3

Change(s) made: Labeled y-axis with “Number of Incidents”.



Post-change image of the relevant portion of the prototype

e. Clarification of “Monitor Changes” label needed

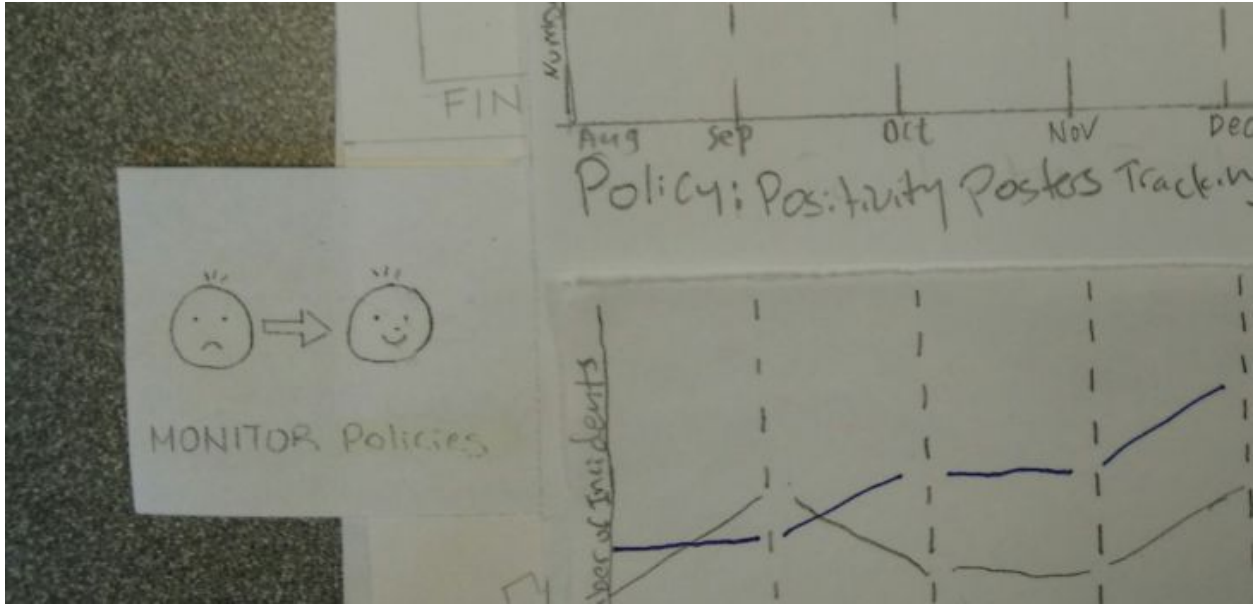


Pre-change image of the relevant portion of the prototype

Issue identified: “Monitor Changes” button was misleading and confusing. While wanting to add a new policy, the user did not know where to go.

Heuristic violated/severity: Match between the system and the real world / 2

Change(s) made: Renamed “Monitor Changes” to “Monitor Policies” to better represent its functionality.



Post-change image of the relevant portion of the prototype

Usability testings

General: Our participants are not, unfortunately, our expected user demographic of middle school teachers and administrators. Our group decided that spending time on the creation and revision of the prototype was more important than spending substantial time seeking more middle school teachers. We hoped to replicated our ideal participant by giving fabricated background information and motivation to our participants.

Protocol: We first explained that we were in CSE 440 and testing a paper prototype for ease of use. We assured the participant that there were no wrong answers and that this was a test of the system rather than the individual. After some background information on the project and asking the participants to imagine themselves as a teacher, we gave them two tasks.

1. You have noticed a student pulling their classmate's hair, and are interested in tracking all of the incidents of hair pulling in your school. Begin tracking this data.
2. Your school has recently put up positivity posters in an effort to curb playground aggression. This policy was implemented April 15, 2015. Track the effects of this policy.

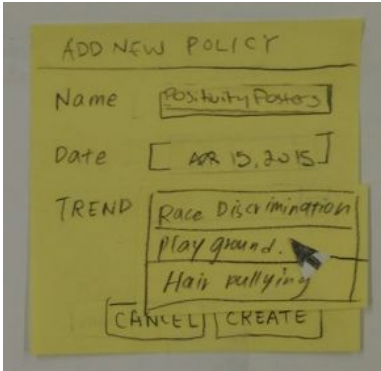
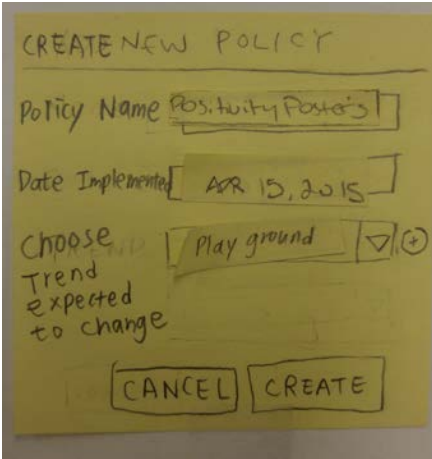
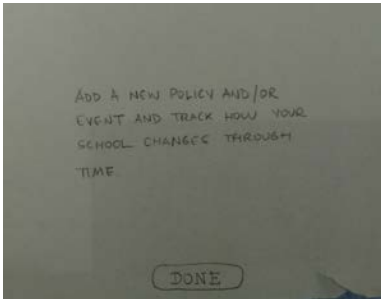
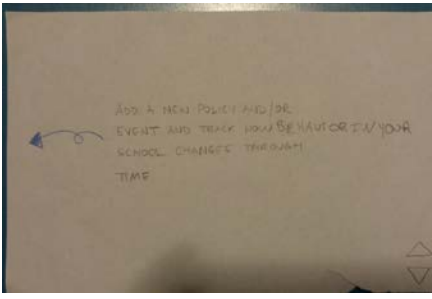
Planned Roles For Each Team Member: Ji Soo played the role of the computer, Kyle played the role of the administrator and Chia-Han the note taker. After the test, we gathered thoughts and opinions as well.


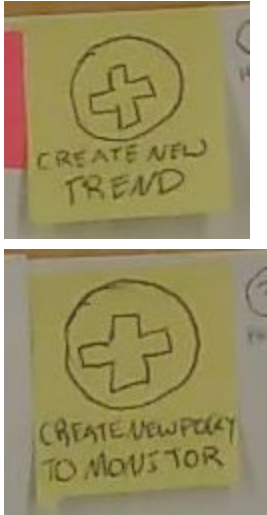
Test 1:

Testing date: 11/12/15 at approximately 4:15 pm

Location: 1st floor of the Odegaard was chosen at the participant's convenience. We were able to set up our prototype on a big table with lots of space.

Participant: Our participant, Stephen, was chosen because he was a friend of a group member.

Pre-Change Image	Issue	Severity	Change	Post-Change Image
	<p>"Add a new policy" box is not clear</p>	<p>2</p>	<p>Changed "add new policy" to "create new policy to monitor"</p>	
	<p>When instructed to create a new policy change, he chose to click on "Find" in order to find the trend to be tracked to later add a policy change.</p>	<p>4</p>	<p>Changed tab order for better user flow, improved tutorial</p>	



	<p>He'd have liked to see a button saying "Create a new policy" rather than "New Policy" because using a verb is more specific.</p>	<p>3</p>	<p>Changed "new" to "create" in both trend and policy tabs</p>	
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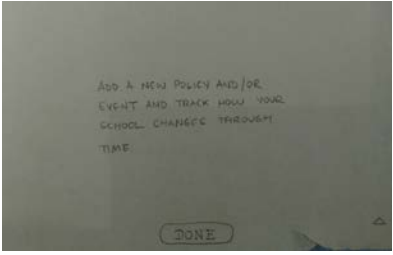
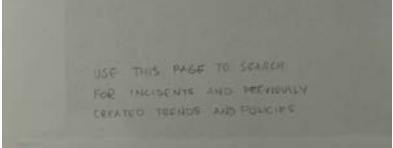
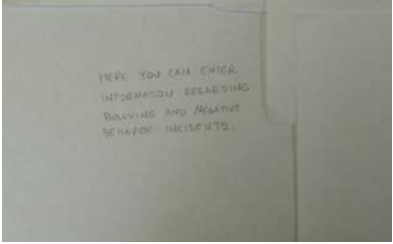
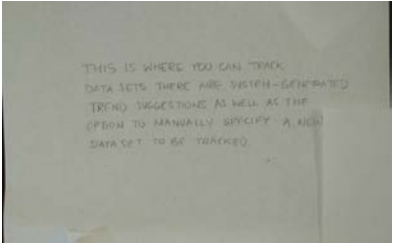
Test 2:

Testing date: 11/12/15 at approximately 4:30 pm

Location: 1st floor of the Odegaard Library was chosen at the participant's convenience. We were able to set up our prototype on a big table with lots of space.

Participant: Jerry was interested in the project and excited to participate leading us to believe his insight would be thoughtful. We improved our our background explanation protocol for Jerry and the test ran smoother.

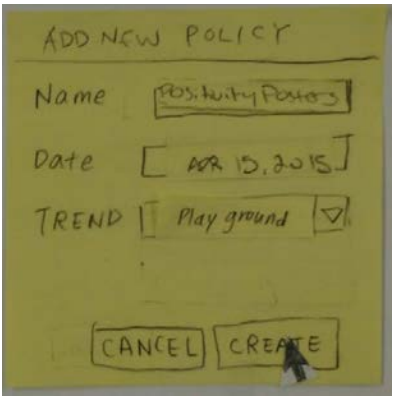
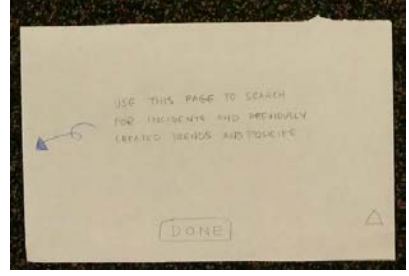
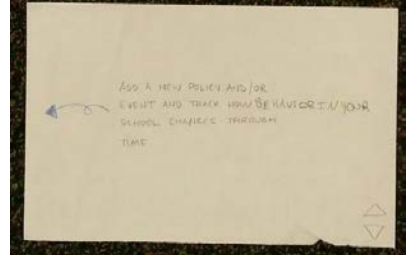
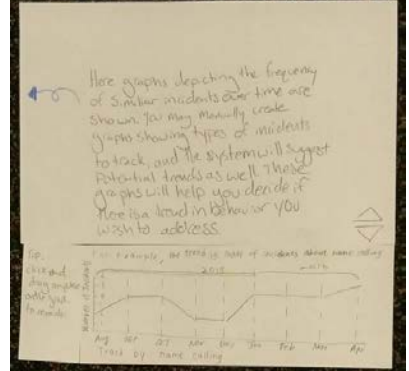
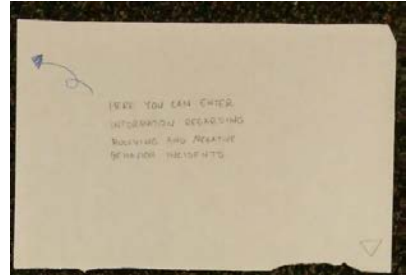
Pre-Change Image	Issue	Severity	Change	Post-Change Image
	<p>No current year labeled in the chart</p>	<p>2</p>	<p>Added current year on the top of the chart and used color to differentiate the years</p>	



The introduction of first 2 function is too long and hard to understand

4

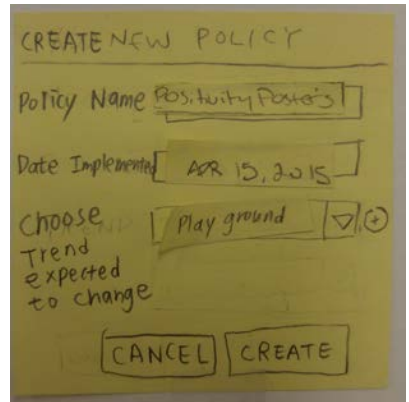
1. We changed the order of tabs to help user understand tutorial.
2. Added a help button on the top-right corner.
3. Changed the description in the tutorial.

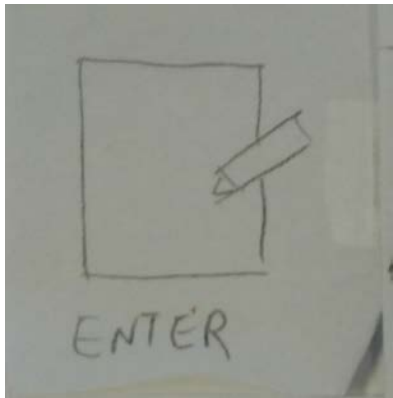


While creating a new policy, it is hard to understand what to type in for "name"

2

Changed "name" to "policy name"

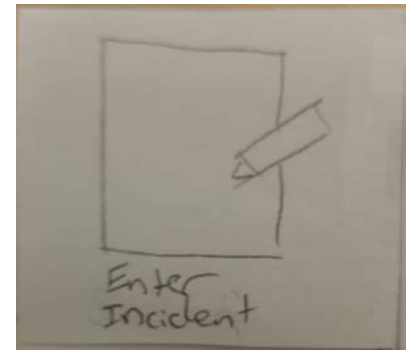




"ENTER" is hard to connect with "incident"

3

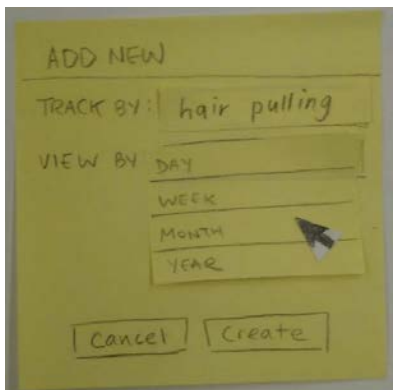
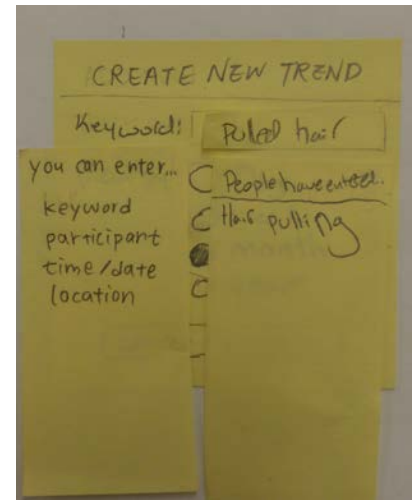
Changed "ENTER" to "ENTER INCIDENT"



While the user creating a new trend, he doesn't know what to type in for "track by" and wonder what if a different user used different phrase to indicate the same thing?

2

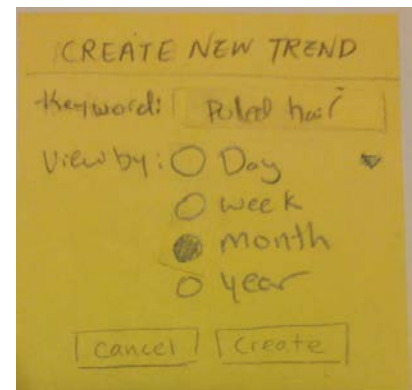
After clicking on the textbox of "Track by", we will give hint to user by a data type clarification box appears, also implemented "folksonomy" suggested keyword.



Confusion over "View by"

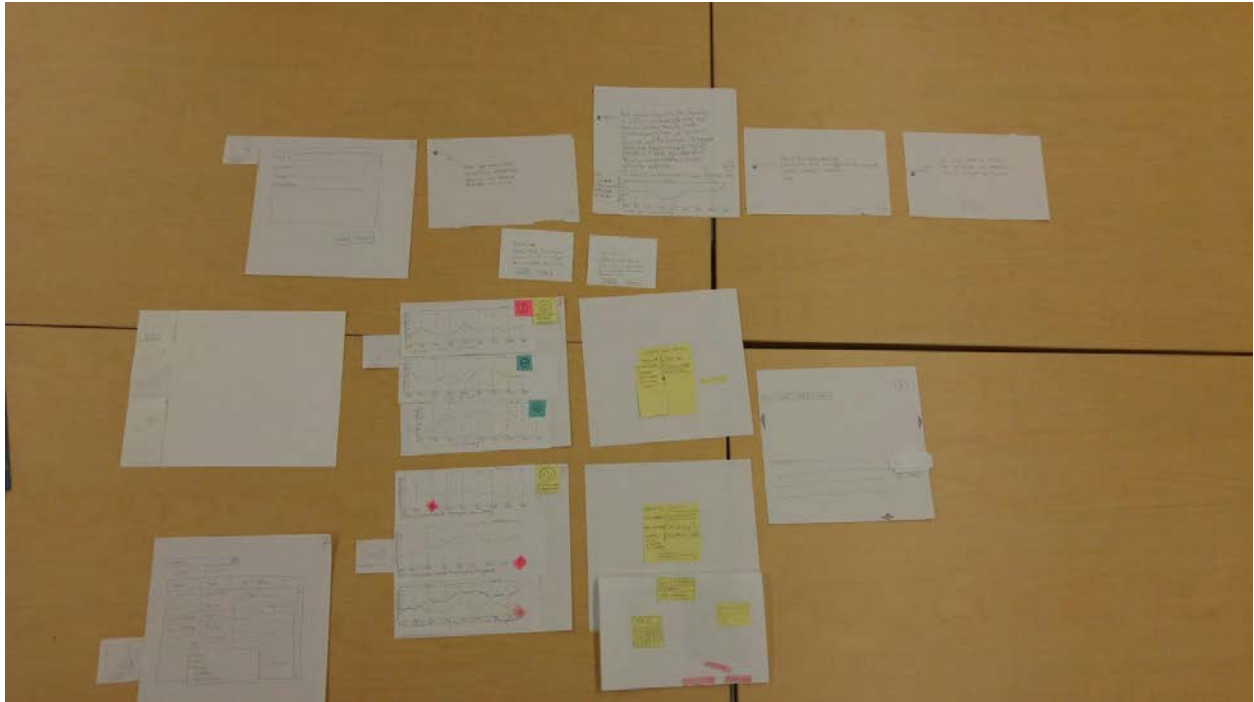
2

Changed drop down menu to radio boxes so they are immediately visible



<p>Previously non-existent feature, no picture.</p>	<p>The user want to order the task by importance OR sort by place/event</p>	<p>1</p>	<p>Supported drag & drop function. We had not thought of this feature existing, so we will allow users now to click and drag graphs to move them and inform them of this function in the tutorial slide.</p>	
<p>Conceptual misunderstanding not demonstrable by image.</p>	<p>Hard to understand at the beginning, what will I get after I input a incident and what is the trend represent?</p>	<p>3</p>	<p>Added an example image in the introduction.</p>	

Paper Prototype Overview



Plan for the Remainder of Usability Tests

Target Population:

A friend who is a high school teacher and a friend who is in HCI+D program.

Goals For Additional Tests and Revised Approach:

We revised our design according to issues found in every usability test, then do the next usability test. After 2 usability tests this week, we made a short walk-through tutorial and it will show when the user log-in the system for the first time. So in the later usability tests, we will let our users interact with the interface themselves and ask them to perform 2 tasks. Our goal is to make sure user can understand what tools we provide and how to perform tasks without any extra explanation.

Planned Roles For Each Team Member:

Ji Soo - computer

Kyle - administrator

Chia-Han - note taker