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Summary

Our research suggests a place for anonymous reporting for bullying or aggressive incidents in school systems. School social structures are very sensitive and need to be taken into account. Teachers are incredibly busy and often communicate about issues amongst themselves in an effort to try and descalate a situation instead of immediately involving administration. Administration tracks and coordinates records which are available to teachers and school counselors by request.

Participants

For our contextual inquiries, we tried to find people that were involved in some way with middle school students as either teachers, staff, or parents. Unfortunately, this demographic proved difficult to approach, as the middle school teachers we contacted were either busy and/or reluctant to answer without the approval of school administrators. We expanded our potential participants to those involved in high school and educational studies as well, and have been investigating if our tool could be generalizable to a wider age range.

Andy Davidson - High school teacher of 2 years

We interviewed Andy Davidson, current lecturer in the HCDE Department of the University of Washington, for his insight into the administrative side of schools. Davidson taught Web Design at the Roosevelt High School located in Seattle, Washington. His high school elective Computer Science course was comprised of middle class students who had actively chosen to be in his class. Perhaps because his students were in his class voluntarily, Davidson did not experience nor observe significant behavioral issues among the students but for a few exceptions. One of these exceptions was a student who disrupted the class fairly regularly but Davidson was able to bring back peace to his classroom by directly talking to the student in private. Davidson emphasized that students respond better to authority figures when they do not have their peers around. Further, teachers in his school always tried to de-escalate the issue; instead of reporting a troublesome student, a teacher would usually consult other teacher for advice and guidance. Moreover, we learned that bullying usually occurs in areas where authority figures are not present.

Kyle Werner - Wilderness Coordinator grades 6 -8

Kyle teaches at a private school in Harpswell, Maine, and serves as the outdoor education / wilderness coordinator and was interviewed over Skype. His school is unique in that it has a specific protocol for disputes and bullying. Called *Restorative Justice*, the teacher acts as a facilitator for student-led problem solving. Upon realization of a problem, a *Restorative Justice* session takes place as quickly as possible during a lunch break. It incorporates the students actively involved, 1 or 2 who were passively

involved, and 1 or 2 outsiders with no knowledge of the situation. Students then express their feelings and decide recourse; often through a new rule or apology. He also talked through a specific instance of this occurring. While students are encouraged to bring up issues of their own and others, they are often very reluctant to do so. The school also distributes iPads to the students for school use.

Jay - 18-year-old high school student

He completed middle school and one year of high school in Taiwan before coming to Seattle. He said that there are no bullying or fighting in his middle and high school class, because his class teacher is the director of school affairs and he is very strict. But one interesting thing is that he mentioned that everyone has a smart phone and brings it to school. Many of them use it in break times, and even during lecture time. After school, they chat mostly on Facebook and Line, a messenger which is popular in Asia. They also ask about homework and exam dates through LINE or FB.

Common Themes Between Inquiries

Busy, busy, busy

Both Davidson and Werner mentioned the busy schedules of teachers. Since teachers are the ones in charge of the physical security of their students, they are not allowed to step out of the classroom without securing a substitute teacher to stay behind to supervise the students, which is no easy feat. As Wong (2015) explains, time pressure is one of the top everyday stressors for teachers. Further, teachers are under constant pressure to improve their students' performance so are perpetually thinking and brainstorming lesson plans. This tells us that any task that we design must not be time-consuming nor overly complicated to learn.

Inter-teacher discussion

Davidson mentioned that sometimes he would email other teachers or counselors, if he wanted to check someone's recent situation, because he could only meet students during his lecture time and was not knowledgeable of what happens during other times and in the student's home. Werner also mentioned that he talked with other teachers often. It is important for teachers to have an easy way to share information about students.

De-escalation and promptness

Davidson and Werner both discussed the need to deal with an issue quickly and calmly. Contacting administrators, parents, and the principal are only for extreme cases and a teacher will attempt to do everything possible to not escalate any issues. This takes the form of teachers addressing the student in private and, when at loss, consulting other teacher-peers. This suggests that our design must be discreet.

Social Pressure and Sensitivity

Background research, confirmed by UW's Karin Frey (bullying expert), points to middle schoolers being concerned of what their peers think of them. This manifested

¹ http://www.theatlantic.com/education/archive/2015/07/teachers-not-enough-bathroom-time/399629/

itself in our inquiries as well. Davidson emphasized that dealing with troubled students needed to happen away from their peers, and while Werner's school's method actively involves their peers, many students are extremely reluctant to approach a teacher about a problem that needs reporting for fear of being involved in the problem in their peers' eyes. This theme suggests that an anonymous reporting method may be a solution to the social concerns.

Administration disciplinary record keeping

Davidson and Werner explained that student records are kept by administration and school counselors, which teachers are allowed to reference as well. This suggests our solution should consider having 3 distinct interfaces for students, teachers, and administration.

Task Analysis Questions

1. Who is going to use the design?

Three group of people will use our design. First, we expect our design will be used primarily by a student who is bullied or who witnesses bullying. Second, our design will be used by teachers who are invested in curbing bullying in and out of the classroom. Third, counselors and staff in the principal's office, e.g., security officer, could also use our design.

- 2. What tasks do they now perform?
 - a. Students
 - i. Report the incident to teachers
 - ii. Tell their parents
 - b. Teachers
 - i. Intervention with students
 - ii. Disciplinary action
 - c. Administrators
 - i. Record keeping
 - ii. Record sharing
 - iii. Disciplinary action
 - iv. Contacting the parents
- 3. What tasks are desired?
 - a. Incident logging (date, time, location, context)
 - b. Incident search and retrieval
 - c. Anonymous reporting
 - d. Incident information sharing
 - e. Logging report edit (when making a mistake)
- 4. How are the tasks learned?

We are hoping our design will be simple and intuitive enough to not need any introduction. If this is not feasible, to minimize the learning curve, a brief tutorial will

inform the features of the design when first using the interface and a "Help?" button will be provided in an easy-to-find yet discreet area.

5. Where are the tasks performed?

We expect that our tasks will be performed mainly during school hours in the classroom and in the hallways or playing grounds during break times, as most students these days carry phones and/or laptops.

6. What is the relationship between the person and data?

The data is sensitive so different users will have separate levels of permissions. To access the data, a secure log-in will be required to authenticate the user. The teacher, for example, will be able to view the bullying incidents sorted by location, time of occurrence, students involved, and date. The administrators should have the ability to edit everything, for example whereas the teachers can only add information. From the student perspective, our design for them will focus on logging so data will be transmitted primarily one-way: from the student to the design.

7. What other tools does the person have?

Currently, anti-bullying efforts are not consistent nor standard and anti-bullying or bullying-response tools are overlooked or not provided to the teachers during their training period. Depending on the type and extent of bullying, a person can contact their school, their Internet provider (if cyberbullying), and/or law enforcement. These channels require those wishing to report the bullying incident to proactively contact these authorities and take responsibility.

8. How do people communicate with each other?

Users should be able to contact each other via e-mail, outside of the program.

9. How often are the tasks performed?

The number of times the tasks are performed will vary depending on many factors, the most important being the number of bullying incidents in the school.

10. What are the time constraints on the tasks?

Bullying logging must be fast so students who are logging the incident can write down the details of the incident while it is still fresh in their memory. Response must also be fast. As Davidson mentioned, teachers do not have a lot of time and when witnessing a bullying incident, the teacher must often diffuse the situation rapidly.

11. What happens when things go wrong?

When data is entered erroneously, the person logging the incident should be able to go back and edit the entry. If the user forgets their password, they should be able to retrieve it by answering a security question and/or receiving a confirmation email.