REMS 2019 Project Description

Addressing breakdowns in collaboration: Redesigning how parents and schools work together in special education

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Background
We have been studying breakdowns in collaboration to improve our understanding of how tensions build in order to result in the widespread litigation that is notorious in the U.S. special education system. To address these problems, our findings indicate that more work is needed on the basic building blocks of collaboration between home and school. A parent like Stacey, who explained to us that she hears about behavioral issues when "it is too late" for her to act, is seeking the opportunity for collaboration. A parent like Camille, who told us, "I feel like I’m always at war", does not even have a sense that she is working on the same team as her child’s school. Such evidence from our past work reveals a dichotomy of "us" versus "them", which requires work to overcome for effective collaboration.

Project Goals
Design efforts could make an impact on this challenge by using social identity theory [21] to bridge the distinct identities that are socially constructed based on the organizational and geographical separation of home and school. Visual cues can reinforce a team identity surrounding behavioral intervention for the child. As interaction is mediated among team members, design choices should avoid reinforcing which members of the team represent the school, for example, and instead promote the idea that all members of the team represent the interests of the child.

Our findings also indicate that interactions between home and school cannot be assumed to have mutual trust. For example, school practitioners were concerned with documenting clear justifications for their responses to problem behavior in order to protect themselves against potential litigation from parents. They were also sometimes hesitant to share information about problem behaviors out of concern that parents may punish their child. Mutual trust in the context of home-school collaboration is "confidence that another person will act in a way to benefit or sustain the relationship, or the implicit or explicit goals of the relationship, to achieve positive outcomes for students" [1]. Our study suggests important opportunities to design for more explicit goals for the collaboration, in addition to goals for the child’s behavior. Goals for the collaboration could include maintaining agreement about what the child’s needs or goals are, or applying specific behavioral strategies consistently across environments. Goals for a child’s behavior are important common ground that should be used to ground communication often, using techniques such as those from Clark and Brennan [8].

In their meta-analysis of school-based behavioral intervention, Vannest et al. [48] found that effective home-school collaboration involved parents in three important activities: (1) developing
and planning behavioral intervention collaboratively, (2) delivering behavioral intervention consistently across environments, and (3) providing children quality feedback about their behaviors. We use these evidence-based strategies to discuss design opportunities based on our findings, with a focus on enhancing existing efforts without significant added workload.

**Student Role**
The student will lead human-centered design activities such as empathy building, ideation, and rapid prototyping. This will require reading literature and synthesizing it with interview data from our past studies, to generate design insights. *The role will involve particular attention to how the design of systems can encourage data sharing across home and school, while maintaining a sense for all users that they have autonomy and agency over the data that is generated in their daily lives (and can therefore reveal personal patterns of behavior either in their home or place of work).*

The student will be responsible for seeking input on designs from a range of stakeholders, including domain experts and end users. End goals for the student’s role on the project include: move design work closer to development and deployment stages; and write compelling and well-articulated descriptions of key design choices, using evidence from literature and empirical data. The student will be encouraged to identify and pursue a submission to a top tier conference as first author - whether as a short paper, full paper, poster, demo of an interactive prototype, design competition, etc.

**Mentorship Plan**
The student will work as part of a collaborative research group, receiving support and feedback on a weekly basis from their faculty advisor as well as peers from diverse backgrounds. The student will be encouraged to take initiative on leading their own design process, with frequent feedback from the faculty advisor to help them iterate. There will also be many opportunities to work on oral and written communication skills.


