

SCHOOL DEETS

EXCELSIOR SPRINGS HIGH SCHOOL

by Erin Huebert



LEANLAB EDUCATION



Research

EXCELSIOR SPRINGS HIGH SCHOOL & SCHOOL DEETS

2020 Research Report

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SCHOOL SUMMARY AND PROBLEM OF PRACTICE

[Excelsior Springs High School](#) is the only public high school that serves the suburban community of Excelsior Springs, Missouri. Of the school's 781 students, 14% are students of color and 52% are eligible for free and reduced price lunch.

Among the biggest concerns for teachers and administrators at Excelsior Springs High School is parent engagement. Attendance at parent-teacher conferences is very low and teachers struggle getting parents to respond to communication efforts. School leaders want to improve the culture and family involvement at the school and so are looking for ways to better engage with and incentivize parents to be more active in the school community. Mr. Tony Harman is a Mathematics teacher and leads [Project Lead the Way Engineering](#). He led the pilot initiative and chose to work with School Deets as a way to reach out to the families of his students.

VENTURE SUMMARY AND INTENDED EFFECT

[School Deets](#), founded by Heather Wilson, is a simple communication platform that fixes disjointed school to home communication by providing one app for everyone. Administration, teachers, family liaisons, secretaries, parent volunteers, community members, etc. can all use the same platform to easily reach parents. Schools add their students and staff to the platform, and then school staff send an invite to parents who enroll in School Deets and are connected to their child, which allows them to receive individualized information and alerts about their child. Teachers can send photos, announcements, and reminders to parents and teachers can then see which parents have read which messages. Additional features include automatic translation, 1-to-1 messenger services, and "brainy" group management that assigns parents to groups that are relevant and of interest to them. The idea behind School Deets is that "When Adults Communicate Effectively, Kids Thrive."

RESEARCH GOALS

There were two main research goals of this study. The first goal was to assess the impact of School Deets on parent awareness of what their child was doing in school and of various events happening at the school as well as assess the impact of School Deets on parent engagement. Accordingly, **the first hypothesis was that parents that used School Deets will be more aware of school-related issues and their child's education than parents that did not use School Deets. The second hypothesis was that parents that used School Deets will be more engaged with the school and their child's education than parents that did not use School Deets.**

The second goal was to gather feedback from the teacher on usability and implementation of School Deets in order to modify and/or enhance product features and development that met the unique needs of the school and its students.

METHODOLOGY

Sample

The sample for this study consisted of all **90 parents of Mr. Harman's students and 100 other randomly selected parents from the school**. The parents of all of Mr. Harman's students among all his classes served as the treatment group. Mr. Harman sent email invitations to the parents of all his students to enroll in School Deets and 85 out of 90 officially enrolled, so the final treatment group consisted of 85 parents. To create a control group, 100 other randomly selected parents from the school were chosen that were representative of the grade level, gender, and racial demographics of the treatment group. Of this final sample, 24% were parents of students of color and 42% were parents of students eligible for free and reduced priced lunch. Since this study had a proper control group and other confounding variables were controlled for, this study was able to evaluate the *effect* of School Deets on parent awareness and engagement.

Measurement of Outcomes

The first outcome evaluated in this study is **parent awareness**. We assessed parents' level of awareness in four main categories: 1) awareness of what their children were learning in the classroom, 2) awareness of events happening at the school, and 3) awareness of school policies and 4) aware of how to find information they need related to the school or their child. To assess parents' level of awareness, pre- and post-surveys were emailed to each parent in the treatment and control groups (described above) via Google Forms. Parents took the pre- survey the week before School Deets was implemented at the end of September, and they took the post-survey the final week of the fall semester in mid-December. The pre- and post-survey were identical and measured the same four categories of awareness. Table 1 displays the questions used to assess awareness and are adapted from [The Equitable Parent-School Collaboration Research Project](#). Parents self-reported on a scale of 1 to 5, with higher numbers corresponding to more awareness.

The second outcome evaluated in this study was **parent engagement**. Engagement was assessed in three main areas: 1) feelings of connection with the school and child's education, 2) frequency of talking with their child at home about school, and 3) attendance at school events. The same pre- and post-survey was used to evaluate parents' level of engagement and questions were adapted from [The Equitable Parent-School Collaboration Research Project](#). Questions on frequency and attendance were customized for purposes of this survey, as they were unique to the goals of the entrepreneur and teacher. Questions are displayed in Table 1. Parents self-reported on a scale of 1 to 5, with higher numbers corresponding to more engagement.

Table 1: Survey Questions used to Assess Awareness and Engagement

Awareness	How aware are you of things that your child is learning in the classroom on a day-to-day basis?
	How aware are you of events happening at your child's school?
	How aware are you of school policies that affect your child (for example, attendance, graduation requirements, etc.)?
	On a scale of 1-5, how easy is it for you to find all the information you need related to your child and his/her school?
Engagement	On a scale of 1-5, how connected do you feel to your child's school?
	On a scale of 1-5, how connected do you feel to your child when it comes to their education?
	How often do you talk at home with your child(ren) about: a) things he/she is doing in class, b) events that are happening at school, c) successes he/she has had at school, d) challenges he/she is facing at school, and e) his/her plans for after high school?
	In the last month, which of the following activities did you attend (select all that apply)?

RESULTS

In this section, the quantitative results assessing the impact of School Deets on parent awareness and engagement are presented. The results compare pre- to post-changes in survey responses between the treatment and control group. Paired t-tests were used to compare the average change from pre- to post-survey responses within groups (to determine a meaningful increase among the treatment group) and between groups (determine whether the change in the treatment group is meaningfully different from the change of the control group). Difference-in-difference estimation was used to evaluate the *effect* of School Deets on the average change in survey responses between the control group and treatment group.

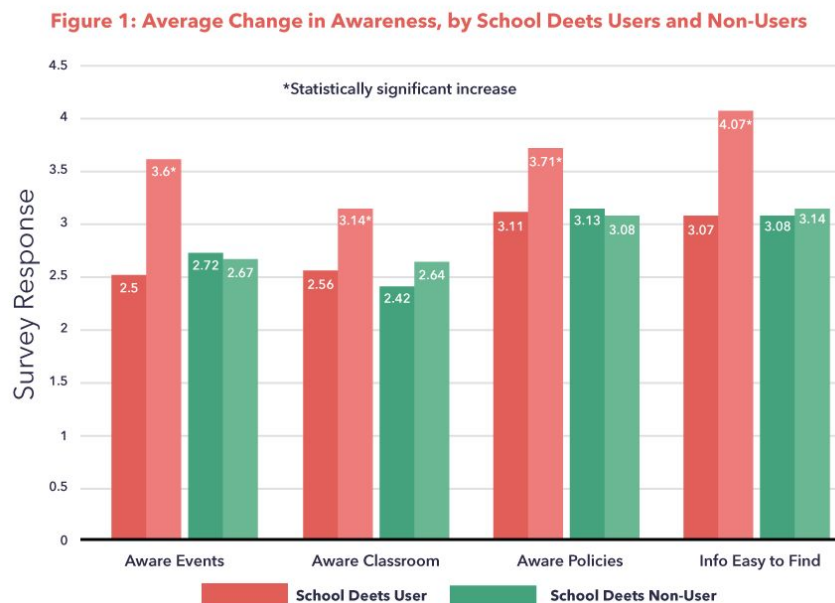
The results are based on a 25% response rate in the treatment group (N=20) and a 42% response rate in the control group (N=42).

PARENT AWARENESS

Overall, there is support for the first hypothesis that parents who used School Deets will be more aware of school events, policies, and their child's learning than parents who did not use School Deets.

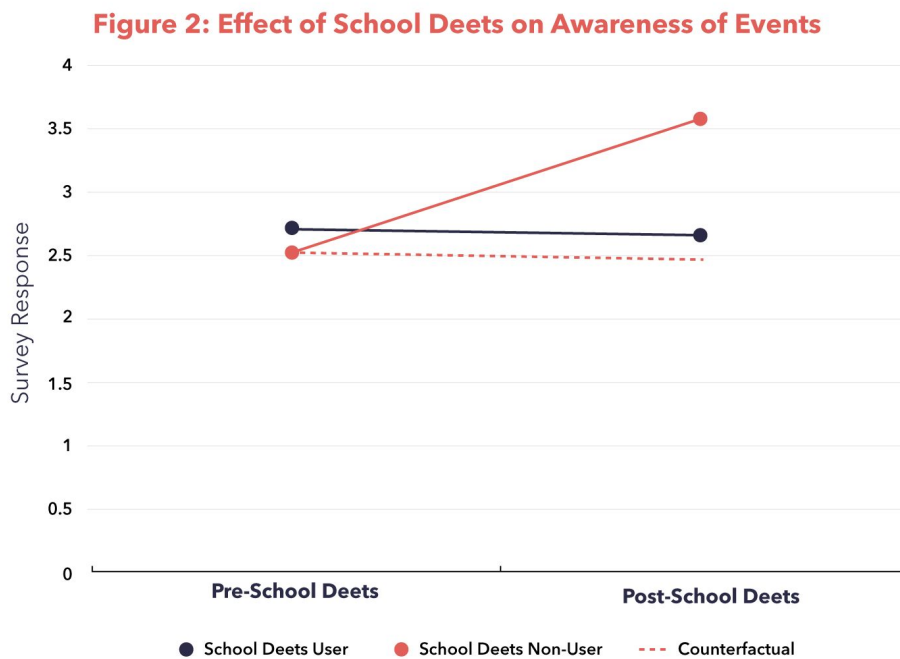
Figure 1 illustrates the average change among awareness indicators for both the treatment and control groups as measured by the change in responses from the pre- to the post-survey. For every category of awareness, School Deets users (red bars), on average, experienced a statistically significant increase in their reported levels of awareness. The largest increase occurred in the first category - awareness of events happening at the school - as the pre-survey average for School Deets users was a 2.5 and the post-survey average was a 3.6, representing a 44% increase. The second largest increase occurred in the fourth category - awareness pertaining to finding school-related information - where a 33% increase in awareness was reported. Parents who used School Deets also reported, on average, more awareness of their child's learning in the classroom and more awareness of school policies.

Conversely, parents that did not use School Deets (green bars) did not report more awareness in any of the four categories. While a small increase occurred in awareness of learning in the classroom and awareness of finding information, the increases were not statistically significant. In sum, Figure 1 illustrates the correlation between School Deets users (treatment group) and non-users (control group) and showed that School Deets users became more aware while School Deets non-users did not become more aware.



Figures 2-5 illustrate the *effect* of School Deets on awareness across the four categories. The correlation described above and shown in Figure 1 only shows that School Deets users reported more awareness than School Deets non-users, but a correlation does not suggest that School Deets was the *reason* for the difference between groups. This is because no other possible explanations for change were controlled or accounted for. By controlling for some other predictors (i.e. age of parent, employment status of parent, socioeconomic status, etc.) and using a difference-in-difference model, we can test whether the difference in reported change of awareness between the treatment and control group is meaningful and not simply a matter of chance. That is, we can determine whether the reported change in awareness was, in part, *due* to School Deets and not something else.

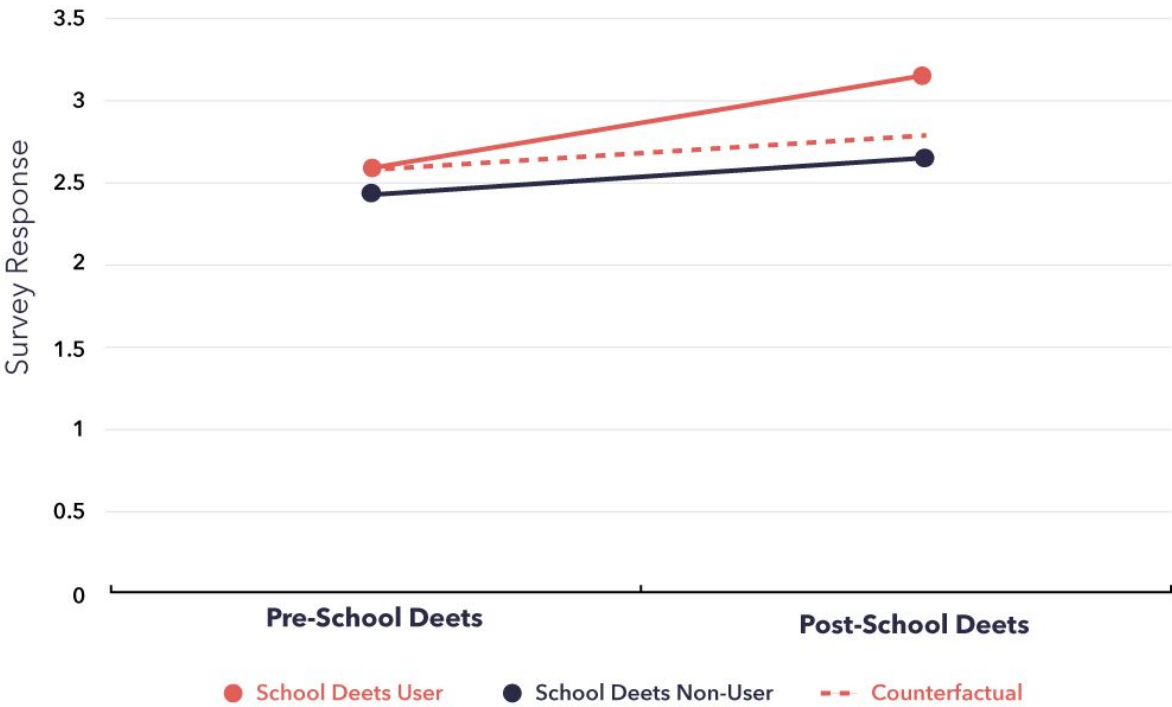
Figure 2 illustrates the effect of School Deets on awareness of events happening at the school. The solid black line shows the actual change in awareness of School Deets non-users, which actually was a slight decrease in awareness. The solid orange line shows the actual change in awareness of School Deets users, and shows an increase from about 2.5 to 3.6 - a 44% increase. The dotted orange line represents the “counterfactual” for School Deets users; that is, it represents the predicted change the group would have experienced, on average, without the School Deets intervention. If parents in the treatment group (orange line) had not used School Deets, they would have experienced a slight decline in awareness similar to the control group (blue line). Thus, Figure 2 provides evidence that School Deets had a statistically significant positive effect on parents’ level of awareness of events, controlling for other explanations of change.



NOTE: Effect is statistically significant ($p < 0.01$)

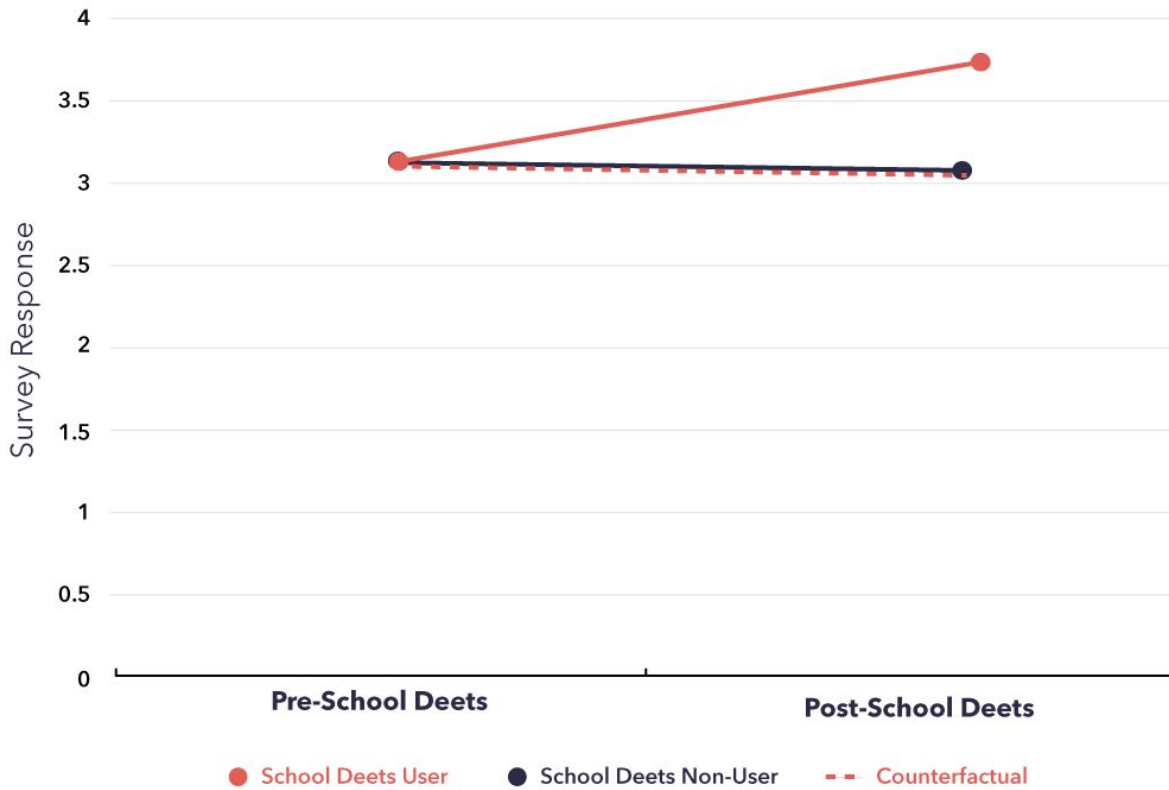
Figure 3 and 4 illustrate the effect of school deets on awareness of child’s learning in the classroom and awareness of school policies, respectively. In both these cases, while School Deets users (orange lines) experienced an increase in awareness, the increase is not statistically different from the change in awareness of the School Deets non-users (black lines). This suggests that the more positive change experienced by the School Deets users was due to something else.

Figure 3: Effect of School Deets on Awareness of Child’s Learning



NOTE: Effect is not statistically significant

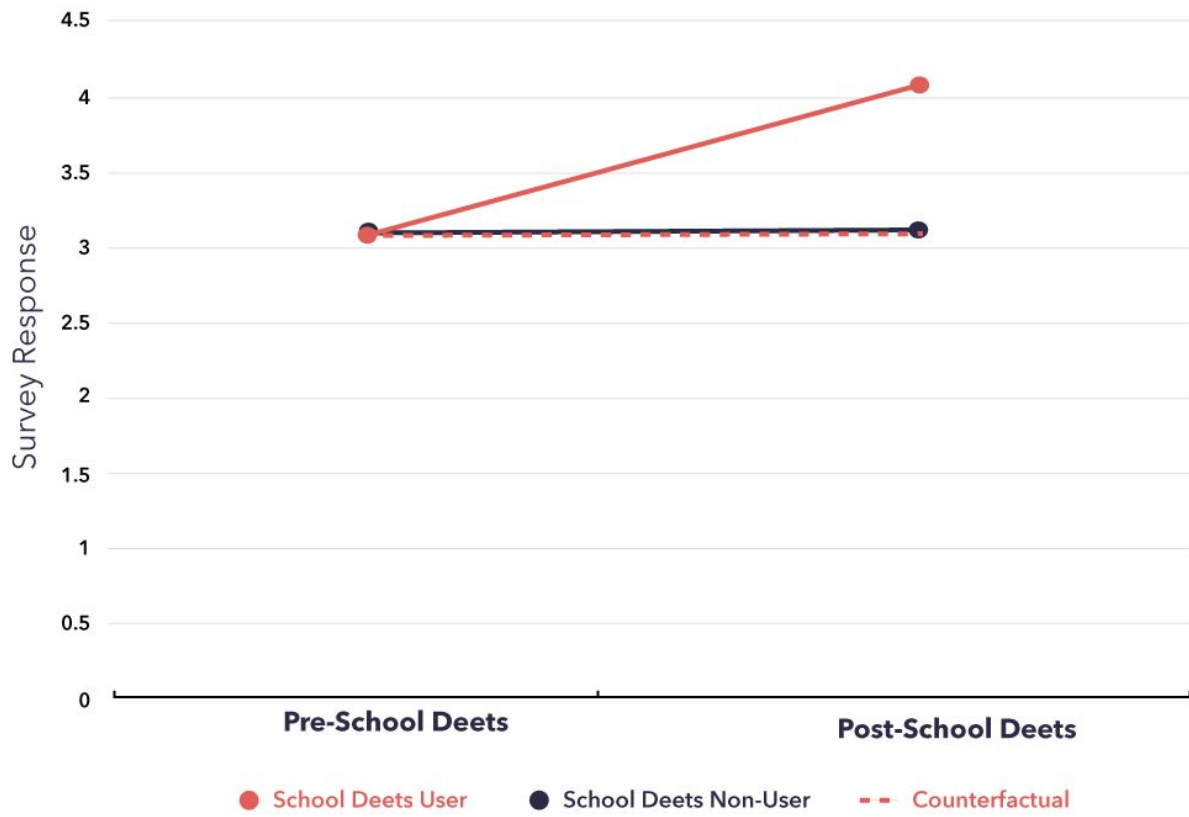
Figure 4: Effect of School Deets on Awareness of School Policies



NOTE: Effect is not statistically significant

School Deets did have a positive, statistically significant effect on parents' awareness of how to find school-related information, as shown in Figure 5. Again, the solid orange line illustrates a 32% increase from about 3 to 4 on the survey scale for School Deets users. Conversely, the black line shows no change in reported awareness among School Deets non-users. The orange dotted line represents the counterfactual for School Deets users; without the intervention, parents in the treatment group would have not experienced an increase in awareness of how to find school-related information.

Figure 5: Effect of School Deets on Awareness of Finding School



NOTE: Effect is statistically significant ($p < 0.05$)

PARENT ENGAGEMENT

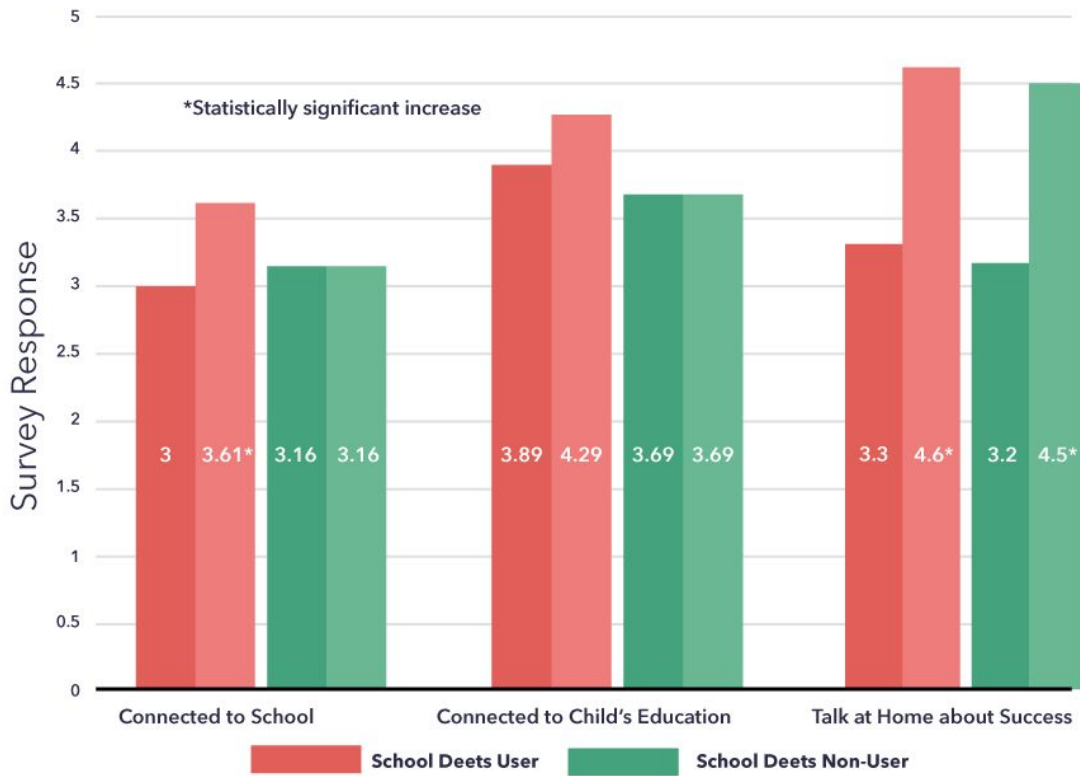
There is some evidence in support of the second hypothesis that parents who used School Deets will become more engaged with the school than parents who did not use School Deets.

Figure 6 illustrates the correlation between School Deets users and non-users among three categories of engagement. In the first category of engagement, School Deets users (orange bars) did experience, on average, a statistically significant increase related to how connected they feel to the school. The average pre-survey response for the group was 3 and the post-survey response from the group was a 3.61, representing a 20% increase in how connected they felt to the school. Conversely, for non-School Deets users, they reported no change in how connected they felt to the school.

For School Deets users and non-users, there was no reported change in how connected parents felt to their child's education. While there was a slight increase for School Deets users, the change was not statistically significant.

Among all the topics that parents could talk at home with their child above (see Table 1), the only topic that parents reported talking about more with their child was *successes they were having at school*. Parents in both the treatment and control groups reported, on average, a statistically significant increase in how much they talk to their children at home about successes he/she/they are having.

Figure 6: Average Change in Engagement, by School Deets Users and Non-Users



The correlations illustrated in Figure 6 suggest an association between School Deets users and connection to the school as well as between School Deets users and talk more with their children at home about school-related successes. The difference-in-difference estimation does not, however, provide evidence that School Deets had an effect on these or any of the engagement indicators. While the increase in reported engagement among School Deets users was greater than School Deets non-users, the change was not statistically significantly different.

ANECDOTAL EVIDENCE

We were unable to fully evaluate the change in attendance at school activities, the final engagement category listed in Table 1. There were simply not enough activities happening at the school for parents to attend on a regular basis to be able to assess *change* in attendance. We didn't have a proper baseline assessment of parent attendance at the point of the pre-survey because there were very few events to attend in the month of September.

There is, however, anecdotal evidence from Mr. Harman, that points to increased attendance at parent-teacher conferences. He said that he had the highest attendance at his parent-teacher conferences this year in October than he has had in recent years. He believes this is because the parents were more aware of the logistics and purpose of the parent-teacher conferences because he was sending reminders and details to parents through the School Deets app. A couple parents also told him at the conference that they appreciated the reminder via the app. Mr. Harman also noted that he has seen a significant increase in the number of parents that reach out to him asking about their children. When parents did reach out to him, they referenced things he had sent through the School Deets app, so he believed parents not only are more aware but feel more comfortable approaching him than they did before.

In sum, the results in this section suggest that School Deets does have a positive effect on parent awareness related to school events and on the knowledge to find school-related information. There is preliminary evidence that School Deets users feel more connected to the school over time, but there is no evidence yet that School Deets accounts for that change.

PRODUCT MODIFICATIONS

The third goal of this research study was to gather feedback from the teachers about product usability and implementation requirements. The first area of teacher feedback was that it was difficult to onboard parents to the app through the existing email system. There were too many steps to follow to get enrolled in the app, and parents would often forget about it. Furthermore, some parents would not even open the email they received to begin enrollment. In response, School Deets changed the email template to be more user-friendly and set up automatic reminders to encourage parents to finish their account creation. The teacher reported that after this modification, more parents signed up for the app quicker.

School Deets is currently working on a few other suggestions made by the teacher that would make the app more user-friendly from the teacher's perspective. First, he suggested that a data dashboard be created that would allow the teacher to see how engaged the parents are with the platform. In particular, he wanted to be able to see which parents were reading which posts, so he knew who to follow-up with. Second, he recommended that a video function within the app itself be added, so that he could take a video and post it immediately to send out, rather than having to upload a video, which would take time. If the video option was more seamless, he would have posted more videos.

Finally, the teacher thought it would be helpful to have a weekly guide or a series of small tutorials to advise teachers on how to create quick content that was engaging for parents. He found that engagement tended to taper off with time, and he would have liked more support from School Deets on how to create interesting and engaging videos or content to share with parents. Since the pilot ended, School Deets has started sending out weekly how-to guides and other suggestions for getting the most out of the app.

DISCUSSION AND NEXT STEPS

This study yielded preliminary evidence that suggested School Deets had a positive effect on parent awareness and a positive correlation on parent engagement. There are a couple of limitations in this study that warrant discussion. First, the sample size in this study ended up being lower than anticipated despite great outreach efforts by School Deets and the teacher. While nearly all parents in Mr. Harman's classes enrolled in the app, only about 25% of them completed the pre- and post-surveys. About 42% of parents in the control group completed the pre- and post-surveys, which was actually higher than the treatment group. The sample in both groups, particularly in the treatment group, was a small group on which to conduct statistical analysis and infer generalizability to a wider context. Future research should, therefore,

establish larger sample sizes for both the treatment and control groups from the beginning, knowing that a number of participants will drop out before the post-survey.

Second, as expected, the results in this study suggest that School Deets has a greater impact on parent awareness than parent engagement. School Deets is primarily about communicating more efficiently and effectively with parents, and the survey results confirm that School Deets users are more informed. The hypothesis was, however, that School Deets users would also become more engaged and there is little evidence to support that. The survey used in this study relied on self-reports of subjective indicators of engagement (i.e. feelings of connectedness) and on self-reports of conversations parents were having at home, both of which are valuable but not a direct measure of engagement with the school. Future research should track objective indicators of parent engagement, such as attendance at events, participation in volunteer activities at the school, direct communication with school staff, etc. In a more robust quantitative approach, moderator tests could be used to evaluate whether School Deets has a direct effect on parent engagement or whether it has an indirect effect on engagement that is moderated by parent awareness. Finally, another approach could be to conduct qualitative interviews with parents and identify other ways they are engaging with their child's learning at home.

Despite these limitations, there is solid preliminary quantitative evidence and positive anecdotal evidence to warrant a larger efficacy study of School Deets.

CONCLUSION

Excelsior Springs High School, and Mr. Harman in particular, are grateful for the opportunity to co-design a product for their school that has the potential to build positive relationships with parents and increase parent engagement in other contexts as well. This study showed that parents who used School Deets reported, on average, more awareness in every area and were more engaged in some areas than parents who did not use School Deets. Furthermore, the statistical analysis provides evidence that School Deets explains, in part, the positive change in awareness. While the evidence is limited by sample size, the preliminary positive evidence this study did find combined with the positive anecdotal evidence from the teacher lends support for a larger, more robust research study. School Deets also proved to be a responsive partner in co-design with the teacher, as it is working to add additional features to the app to make the platform more accessible to teachers, students and parents.