Impact Evaluation of PowerSchool's Attendance Intervention Solutions in the Seaford Delaware School District

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Contents

EXECUTIVE SUMMARY:
Impact Evaluation of PowerSchool's Attendance Intervention Solutions in the Seaford Delaware School District

The Center for Research and Reform in Education (CRRE) is a research center affiliated with the School of Education at Johns Hopkins University (JHU) specializing in K-12 education program evaluations. In 2023, CRRE contracted with the PowerSchool Group LLC ("PowerSchool") to conduct a quasi-experimental design (QED) study to determine the impact of their Attendance Intervention solutions in schools in the Seaford School District (SSD) in Sussex County, Delaware.

The present study used a mixed-methods QED to examine these research questions:

1. Do students enrolled in Attendance Intervention demonstrate improvement in attendance compared to those in a control group?
2. What are teachers' and staff members' reactions to the Attendance Intervention with regard to:
   a) Benefits for students?
   b) Implementation requirements?
   c) Strengths and weaknesses?
   d) Recommendations for implementation improvement?
   e) Recommendations for product improvement?

Research Design

A quasi-experimental design (QED) study spanning multiple schools in Seaford (DE) School District was used for this evaluation. The efficacy study component was a QED that compared attendance outcomes for two elementary schools that used multi-tiered system of supports (Attendance Intervention) in combination starting in spring 2023, in relation to two other district elementary schools that used existing (business-as-usual) practices for attendance monitoring. In addition, attendance outcomes in the district's middle and high schools, which also implemented Attendance Intervention starting in spring 2023, were analyzed descriptively, as no attendance data from comparable schools that did not implement Attendance Intervention were available.

Administrator and staff interview protocols were co-developed by CRRE with PowerSchool to inquire about users' experiences with, and reactions to all components of the products and resources. The interviews occurred online from May 17, 2023, to March 1, 2024, using the Zoom virtual meetings platform. District and school leaders, teachers, and attendance secretaries were asked questions to better understand their experiences with the program from start-up through daily implementation, as well as their suggestions for program improvements. Interviewees were asked about the value

of Attendance Intervention for themselves and their students, and which features were perceived as most beneficial.

Study Sample

The context for the present study was Seaford School District, a small suburban school district that serves approximately 3,500 students across six schools. A majority of students are non-White, as the largest racial and ethnic groups are Black (36%), Hispanic (29%), and White (27%). Just under 40% of students are classified as economically disadvantaged, while 27% of students are ELLs and 17% of students receive special education services. All district schools are classified as Title I schools. Attendance data from all students in the four district elementary schools, along with the middle and high school, were considered in quantitative analyses. In addition, a total of nine teachers and administrators were interviewed regarding their perceptions of training and implementation related to Attendance Intervention, as well as overall perceptions of Attendance Intervention regarding ease of use, impacts on student outcomes, program strengths and weaknesses, and recommendations for implementation and product improvement.

Attendance Impacts

Results of quantitative analyses showed generally positive impacts of the Attendance Intervention program on student achievement outcomes. The main impact analyses showed directionally positive impacts of Attendance Intervention on student attendance rates and counts of days attended, with students in Attendance Intervention elementary schools averaging 0.8% higher attendance rates and nearly two days more of attendance than did students in comparison (non-Attendance Intervention) district elementary schools. The impact on counts of days attended reached statistical significance ($p = .038$). Follow-up analyses showed that attendance rate increases were significantly higher at Blades Elementary, which used Attendance Intervention, in relation to other district elementary schools. In addition, descriptive analyses of chronic absenteeism rates showed that rates of chronic absenteeism generally decreased more in Attendance Intervention schools. Descriptive analyses of middle and high school attendance data showed higher attendance rates for students after Attendance Intervention implementation, with school-wide attendance rates approaching Delaware state averages.

Teacher and Administrator Perceptions

Interview respondents consistently reported that Attendance Intervention benefited students, families, and staff responsible for communication regarding attendance. Families became more informed and responsive when communications occurred in real time, facilitating better communication about attendance, as well as more accurate record-keeping. Reports allowed teachers to easily see a comprehensive

picture of a student's record in real time, improving communications with parents, and the school's ability to act when students needed more support. Reports also helped the school and district level attendance teams monitor trends and implement strategies for improvement. Implementation requirements and start-up practices were supportive, and fine-tuning of some program features to better meet this district's needs will continue to improve the user experience.

Impact Evaluation of PowerSchool's Attendance Intervention Solutions in the Seaford Delaware School District

The Center for Research and Reform in Education (CRRE) is a research center affiliated with the School of Education at Johns Hopkins University (JHU) specializing in K-12 education program evaluations. In 2023, CRRE contracted with the PowerSchool Group LLC ("PowerSchool") to conduct a quasi-experimental design (QED) study to determine the impact of their Attendance Intervention solutions in schools in the Seaford School District (SSD) in Sussex County, Delaware.

The SSD is based in the town of Seaford in southwest Sussex County, Delaware and serves approximately 3,500 pre-K through 12th grade students in the Seaford and Blades communities. It consists of four elementary schools, one middle school, and one high school. The primary research interest in this study was to determine the effects of Attendance Intervention software on K-12 students' school attendance, with a secondary question addressing teachers' and office staff's reactions to the program.

As described in their product documentation, PowerSchool has designed a comprehensive Multi-Tiered System of Supports (Attendance Intervention) software intervention system that combines advances in learning science, intervention best practices, and smart technology to drive measurable improvement in student outcomes. The Attendance Intervention solution allows educators to identify and track student needs with an extensive range of inputs, implement and monitor interventions, and review the efficacy of their Attendance Intervention framework for continuous improvement. Primary system components include:

- Identifying student needs
- Creating and tracking student plans
- Collaboratively monitoring intervention
- Reviewing outcomes and effectiveness

Attendance Intervention, in turn, enables any classroom, school, or district administrator to view and act upon daily and chronic absenteeism by monitoring attendance from the Student Information Systems (SIS) platform and highlighting data and trends in absenteeism and facilitating two-way, translated, personalized outreach via SMS, email, and phone call between school and home—i.e., parents and guardians. This helps pull students into attendance intervention groups, assigned based on their attendance tier. Tier 2 students, for example, may be assigned to a research-proven "success mentoring" group, whereas Tier 3 students may be assigned to a "home visits" group, in which they receive 1:1 in-person outreach and follow up support by staff.

The present study used a mixed-methods QED to examine these research questions:

1. Do students enrolled in Attendance Intervention demonstrate improvement in attendance compared to those in a control group?
2. What are teachers' and staff members' reactions to the Attendance Intervention with regard to:
   a) Benefits for students?
   b) Implementation requirements?
   c) Strengths and weaknesses?
   d) Recommendations for implementation improvement?
   e) Recommendations for product improvement?

Method

Research Design

A quasi-experimental design (QED) study spanning multiple schools in Seaford (DE) School District was conducted for this evaluation. The efficacy study component compared attendance outcomes for two elementary schools that used Attendance Intervention starting in the spring of 2023, in relation to two other district elementary schools that continued to use existing (business-as-usual) practices for attendance monitoring. Blades Elementary, a Grade K-2 school, and Frederick Douglass Elementary, a Grade 3-5 school, implemented Attendance Intervention and were considered the treatment schools for the QED portion of this evaluation. West Seaford Elementary (K-2 school) and Seaford Central Elementary (3-5 school), which used business-as-usual attendance monitoring, were the comparison schools in the QED design. In addition, attendance outcomes in the district's middle and high schools, which also implemented Attendance Intervention in spring 2023, were analyzed descriptively, as no attendance data from comparable schools that did not implement Attendance Intervention were available.

Participants

Seaford School District is a small suburban school district that serves approximately 3,500 students across six schools. A majority of students are non-White, as the largest racial and ethnic groups are Black (36%), Hispanic (29%), and White (27%). Just under 40% of students are classified as economically disadvantaged, while 27% of students are ELLs and 17% of students receive special education services. All district schools are classified as Title I schools, and statewide testing data shows that district students score close to state averages in both reading and mathematics proficiency. Table 1 illustrates enrollment levels and grades served across all Seaford School District schools.

Table 1

Study Participants: Grades, and Enrollment

School Name	Grades	Enrollment	Title I
Blades Elementary*	K-2	394	Yes
Frederick Douglass Elementary*	3-5	419	Yes
West Seaford Elementary	K-2	336	Yes
Seaford Central Elementary	3-5	388	Yes
Seaford Middle School*	6-8	828	Yes
Seaford High School*	9-12	805	Yes

Notes. 1. All six schools have Title I status. 2. * indicates intervention schools.

Measures

Data sources for the current study include student attendance data and school staff interviews regarding experiences with and impressions of the Attendance Intervention system.

Student attendance. The main outcome for both the main impact and supplementary quantitative analyses was student-level attendance measures from all six district schools. As Attendance Intervention was initially implemented in the winter and spring of the 2022-23 school year, attendance data from September-January of the 2022-23 school year (pre-implementation) were compared with similar measures from September-January of the 2023-24 school year (post-implementation). Attendance data were obtained directly from Seaford School District, with measures including counts of days enrolled, days present, days absent, unexcused absences, and excused absences. In addition, percentages of attendance (based on days attended and days enrolled) were also contained in these data sets. Attendance percentages and counts of days present were used as the main outcome variables in regression analyses, while all attendance measures from all district schools were used in descriptive analyses. Student-level data also included student grade levels and school buildings of attendance, but no other demographic variables were included. In addition, publicly available data sets from the Delaware Department of Education were obtained that contained school-level and state-level attendance data. These data sets included subgroup-level data across a wide variety of student subgroups of interest. Reported attendance variables from Delaware DOE data included counts and percentages of chronically absent students, along with counts of average days enrolled, days absent, and days present.

Administrator and Staff Interview Protocol. The interview questions were co-developed with PowerSchool to address administrators' and staff members' experiences with and reactions to all components of the products and resources. The interviews occurred online from May 17, 2023, to March 1, 2024, using the Zoom virtual meetings platform. The administration time was chosen to avoid student testing

windows and end of year activities. Participants received a link to schedule an interview via email from a familiar district or school administrator.

The interview contained one demographic item to identify respondents' school or district position and responsibilities. Next, two questions sought to identify the initial and follow-up training received, the provider, and if additional support was available and helpful. The final question in this category asked about perceptions of how ready participants felt to effectively use the program. The next set of questions asked participants to describe how easy or difficult Attendance Intervention is to use, and the challenges faced in their context, if any, related to student attendance and family communications. Next, interviewees were asked about the value of Attendance Intervention for themselves and their students, and which features were perceived as most beneficial. A list of program features listed in Table 2 was used to explore the details of users' experiences. The next eight questions asked about the following:

- How Attendance Intervention figures into meeting state and district attendance requirements
- Possible benefits to attendance teams
- Impacts on student and family outcomes related to attendance, communications, and engagement with the school community
- Anecdotes in which the program improved intended outcomes
- Opportunities for improvement; challenges
- Useful reports
- The value of and changes instigated by automated interventions and communications with families
- The value of the program for different grade levels, special needs children, and English learners

The final two questions solicited suggestions for new program features, recommendations for improvement, and any other comments participants might offer. A copy of the interview protocol is provided in Appendix A of this report.

Analytical Approach

All student-level attendance data were analyzed descriptively in the form of frequencies, percentages, means, and standard deviations. Comparative analyses for the QED portion of this analysis consisted of multiple linear regression (MLR) on student attendance outcome measures, with adjustments made for pre-intervention attendance rates and student grade level. Middle school and high school attendance data were analyzed descriptively and compared to prior-year statewide attendance norms. All covariates in regression analyses were grand-mean centered to enable interpretation of the intercept. Interview data were analyzed via standard qualitative techniques to identify emerging trends and themes across participant responses.

Results

Descriptive Attendance Analyses

We begin by descriptively analyzing attendance data from the first half of the 2022-23 and 2023-24 school years, by school. Table 2 shows average counts of days enrolled and days present, along with school-level average attendance rates, for each district school in both 2022-23 (pre-intervention) and 2023-24 (post-intervention). Note that this analysis only examines data from students enrolled in the school both years and with non-missing attendance from both years. A table containing descriptive analyses of all students with data in either school year can be found in Appendix B.

Table 2

Unadjusted Attendance Metrics, by School, 2022-23 and 2023-24

School	*N*	Days Enrolled	Days Present	Attendance Rate	% Change
Blades*					
22-23	274	85.16	78.57	92.26	
23-24	274	88.79	84.32	94.97	2.71
Frederick Douglass*					
22-23	269	88.09	83.20	94.45	
23-24	269	88.51	84.13	95.05	0.60
Seaford Central					
22-23	257	88.07	83.96	95.33	
23-24	257	87.75	84.14	95.89	0.56
West Seaford					
22-23	297	85.21	80.78	94.80	
23-24	297	84.92	81.52	96.00	1.20
Middle School*					
22-23	527	87.50	80.37	91.85	
23-24	527	86.55	79.70	92.09	0.24
High School*					
22-23	642	87.62	77.95	88.96	
23-24	642	84.19	75.67	89.88	0.92

Note. * Denotes treatment school.

Attendance rates increased from 2022-23 to 2023-24 across all six district schools. In terms of treatment schools, attendance at Blades increased by nearly 3%, while attendance at Frederick Douglass increased by 0.6%. By comparison, Seaford

Central and West Seaford averaged approximately 1% attendance increases, while the middle school averaged a slight 0.2% increase and the high school averaged approximately a 1% attendance increase. Taken together, attendance increases were slightly larger for treatment students in schools that used Attendance Intervention, as compared to that of students in comparison schools. This was especially noticeable in Blades Elementary, where the jump in attendance rates from 2022-23 to 2023-24 was considerably larger than that of any other elementary school.

Chronic absenteeism. We also conducted descriptive analyses examining rates of chronic absenteeism in all district schools from the 2022-23 and 2023-24 school years. Chronic absenteeism is defined by the U.S. Department of Education as missing at least 15 days of school in a full 180-day school year. As we are only examining half-years of attendance data, it is more useful to consider chronic absenteeism as a percentage; 15 days out of 180 is 8.33% of a full school year, so for our purposes, chronic absenteeism was defined as an attendance rate less than 91.67% (8.33% subtracted from 100%). Chronic absenteeism rates by school and school year are shown in Table 3.

Table 3

Chronic Absenteeism Rates, by School and Year

School	22-23	23-24	Net Change (%)
Blades*	38.32	23.82	-14.50
Frederick Douglass*	28.30	15.93	-12.37
Seaford Central	24.59	16.38	-8.21
West Seaford	23.31	16.61	-6.70
Middle School*	35.89	32.21	-3.68
High School*	50.25	39.20	-11.05

Note. * Denotes treatment school.

Chronic absenteeism rates from the first half of the 2022-23 school year to the first half of the 2023-24 school year decreased across all district schools. Interestingly, three of the four largest decreases in chronic absenteeism occurred in treatment schools (Blades, Frederick Douglass, and the high school). Further, chronic absenteeism decreases were larger in the two treatment elementary schools than in the two comparison elementary schools. In all, the results of this descriptive analysis show suggestive evidence of the Attendance Intervention program decreasing chronic absenteeism in participating schools.

Comparative Analyses

Next, we examine the results of comparative analyses showing the impact of the Attendance Intervention program on student attendance. The first set of results show

the regression analyses examining program impacts on attendance in elementary schools, while the second set of results compare middle and high school achievement trends to statewide averages.

Regression analyses were conducted using student attendance data from the four district elementary schools (two treatment and two comparison schools). Only students with non-missing attendance data from the 2022-23 and 2023-24 school years were included in these analyses. Outcome measures included student-level attendance rates and counts of days present. The former measure accounts for the number of days a student was enrolled, while the latter measure is simply a count of days a student was present. The results of these analyses are displayed in Table 4.

Table 4

Attendance Intervention/UHA Impacts on Attendance Variables (n = 1,096)

Variable	Estimate	Standard Error	p value	Effect Size
Attendance Rate				
Treatment	0.008^	0.004	.053	0.11
Constant	0.947***	0.003	<.001	
Days Attended				
Treatment	1.745*	0.841	.038	0.13
Constant	82.61***	0.585	<.001	

Note. ^ $p < .10$; * $p < .05$; *** $p < .001$.

The results of these impact analyses showed directionally positive impacts of Attendance Intervention on student attendance, with the impact on counts of days attended statistically significant (p = .038). The difference in impacts between attendance rate and days attended is due to slight differences in each metric; the attendance rate is a function of days attended and days of enrollment, while the days attended metric does not take into account total days of enrollment (if different from the standard 90 days, which represents half of a school year). The regression coefficient in each analysis can be interpreted as the average difference in an attendance metric associated with attending a treatment school. Thus, the coefficient for the attendance rate analysis indicates that students in treatment schools averaged 0.8% (.008 x 100, to convert to a percentage) larger attendance rate increases, in relation to comparison students. Similarly, students in treatment schools averaged nearly two additional days of school attended than did students in comparison schools. The effect sizes in both impacts were slightly larger than 0.1 SDs, indicating small but practical impacts of Attendance Intervention on student achievement. In all, the results of these regression analyses provide evidence of small, yet notable, positive impacts of Attendance Intervention on student attendance metrics.

To further examine differences in year-on-year attendance rate changes, a one-way Analysis of Variance (ANOVA) was performed on attendance rate changes from the 2022-23 to 2023-24 school years. Only elementary schools were considered in this analysis. An omnibus main effect of school on attendance rate change was observed (F = 8.01; $p < .001$). Bonferroni post-hoc testing showed that the attendance rate increase in Blades Elementary was significantly larger than increases in the other three elementary schools ($p < .01$ in all three contrasts). Attendance rate changes among the other three elementary schools were not significantly different. The results of these analyses suggest that Attendance Intervention implementation in Blades Elementary was having an especially positive impact on student attendance rates.

Middle and High school. As both the middle and high schools used Attendance Intervention, no comparison schools were readily available within Seaford School District. Thus, we compare attendance trends to statewide averages. As in the comparative regression analyses, we only include students with non-missing attendance data from both the 2022-23 and 2023-24 school years; thus the middle school and high school sample sizes are the same as those listed in Table 1. The results of these comparisons are shown in Table 5.

Table 5

Middle and High School Attendance Trends, in Relation to State Averages

School	22-23	23-24	22-23 State Average*
Attendance Rate			
Middle School	91.85	92.09	92.94
High School	88.96	89.88	91.51
Days Attended			
Middle School	80.37	79.70	73.24
High School	77.95	75.67	72.68

Note. 2022-23 state averages are computed on a full 180-day school year and divided by 2, to account for half of the school years.

Attendance rates increased in both schools among students that had non-missing attendance data across both school years. Attendance rates remained slightly lower than Delaware statewide averages, although these increases indicate that gaps in attendance rates may be closing. Likewise, days of attendance remained relatively stable across both schools. However, it is important to consider that days of attendance does not take into account days of enrollment, and thus is a coarser-grained indicator of student attendance than is the calculated attendance rate, which takes into account days present and days of enrollment. When comparing to statewide averages, Seaford middle and high school students averaged more days of attendance than did middle and high school students across the state of Delaware. In considering the results of this

analysis, it is important to consider that data from two different sources (district and DDOE) were compared, and that statewide populations of students may not mirror those of Seaford schools. As such, this is a very coarse-grained analysis, and results should be interpreted very cautiously.

Interviews

Program start-up and use began in March 2023, with only school front office staff and district specialists in student data management using the programs. Two elementary, one middle school, and one high school began to use the program in 2023, allowing for feedback about how the program was received at different grade levels and in different contexts. Nine interviews were conducted among this group of early adopters, representing staff responsible for attendance record-keeping and communications with families at the elementary, middle, and high school levels. District level administrators responsible for student services and data management, a school principal, teachers, and school office staff made up the pool of interviewees. Although this is a small group, the information provided by these early implementers is expected to inform practices for training and implementation as more users start. Table 6 below summarizes the number of respondents from each setting and their positions.

Table 6

Respondent Numbers by Position

Position	School/District Position	Number of Respondents
Attendance Secretary	Elementary, Middle, High School	3
Front Office Receptionist	Elementary School	1
Student Services/Data Management	District	2
School Administrator	Elementary School	1
Teacher	Elementary School	2
Total		9

Participants were asked about the kind of training or other preparation activities they received before beginning to use any PowerSchool products. Four interviewees received formal, online training from PowerSchool staff, one received several informal, 30-minute sessions with PowerSchool staff, and one missed substantial portions of the initial training because of schedule conflicts with other duties. Finally, three people did not have any formal training but reported that the program was user friendly and easy to learn with support from co-workers when needed. Everyone reported that it was possible to review program collateral and learn enough to get started.

Interviewees reported that questions directed to PowerSchool or the district were always answered in a timely and helpful manner. Several individuals noted that they were looking forward to learning more about the programs during additional training in fall 2023. One person suggested that the training be more hands-on and conducted when the programs are active so that participants may follow along on their own devices as they learn and practice. The school office staff (secretaries responsible for daily attendance duties) serve as the lynchpin for others in the schools. They use the program every day and are able to help others when they have questions. In total, interviewees shared the following:

1. Programs are user friendly and mostly intuitive
2. PowerSchool staff were responsive to questions and provided support as needed
3. District staff provided support to school office staff
4. District staff located in a school building learned more about the program informally from school staff
5. Further training is needed by fall 2023 in order to make better use of all PowerSchool resources

Next, participants were asked if they felt prepared to make the best use of Attendance Intervention, and why or why not. Responses were consistent across all nine interviewees and included the following:

1. Starting the program in March was not conducive to smooth on-boarding for users. Merging existing practices with the PowerSchool platform mid-year caused inaccuracies in communications about the total number of excused and unexcused absences, causing some automatic messaging to be discontinued.
2. Start-up was collaborative with support shared among PowerSchool staff, district staff, and school-level users.
3. Initial training alone did not prepare participants completely but did serve to involve them in using the platform. Three interviewees did not receive any training. However, all participants were able to teach themselves how to use the program, receiving help from program specialists and co-workers when needed.
4. Several people suggested having training with, or some other connection to other districts using the program to allow for sharing ideas and questions. Most respondents liked the idea of having someone on site to help them as they begin to use the program.
5. Teachers and administrators learned to use the program easily and quickly, but wondered if there may be features they are not aware of and therefore did not yet learn to use. Teachers felt that they were tech savvy and therefore were able to pick up how to use the program with little effort.

Ease of Use

Participants were asked how easy or difficult they found Attendance Intervention to use. Answers were directly related to how and for what purpose each individual used the program. In schools, interviewees found the tools for attendance activities very easy to use, and they immediately saw benefits. Comments included: "Attendance Solutions is very easy to use and self-explanatory, and MTSS is relatively easy to use; we need to figure out more." All respondents talked about how easy Attendance Solutions is for communicating with families: "… sends messages and helps when families don't answer their phones," and "… what I do is very easy, just like texting." In terms of collecting and using data, the late start caused some problems, as noted by one person who said, "… the software is in its infancy and there were problems because we started late, so collecting data was turned off." At the district level, preparing to use new software was described as labor and time intensive. Setting up a personalized system took the district much longer than anticipated and starting late in the school year created discrepancies in data reporting.

Challenges for Schools and Families

Two questions probed the magnitude and nature of challenges related to student attendance and family communications faced by Seaford schools. Respondents were unanimous that in both areas, schools face big challenges, and the magnitude and complexity of problems increase as grade level increases. As children get older, respondents perceive that parental supervision decreases, especially during before-school hours. For example, many middle and high school students walk to school or get on a bus without a parent at home (i.e., parents leave for work before a child leaves for school), making timely communications between attendance secretaries and parents important. Respondents also described changes in school attendance habits and attitudes due to pandemic-related schooling options. As schools returned to all on-site learning, many students and parents still behaved as if on-site learning was optional. Schools have also lost contact with some students and families as a result of pandemic conditions. It is both important and sometimes challenging to know if a student should continue to be enrolled and reported for accountability measures, and to distinguish between tardiness, excused, and unexcused absences in real time.

Two challenges related to family communication were cited by all respondents: language barriers and difficulty contacting parents, for example, a hesitancy to answer calls from unfamiliar phone numbers, and inaccurate home addresses. Also mentioned by most respondents was keeping parents/caregivers up to date with accurate attendance data, communicating the attendance rules for the school, and collecting notes for excused absences. Attendance Intervention has greatly improved how schools are meeting all of these challenges, especially language barriers. English learners make up approximately 22% of all students in the district, most with Spanish or Creole as their first language. Using the translation function in Attendance Intervention, families

of these students are able to receive messages they easily understand and send messages back to school in their first language, automatically translated to English.

Being able to send text messages to families instead of making phone calls or sending hard copies of letters in the mail was described as "game changing" by most respondents. The ease and quickness of a text message allows parents to check on the whereabouts of a child who should be in school but is not, and quickly rectify the situation. Parents who may not be able to take phone calls at their workplace are more likely to answer a text message when they can easily see that it is a communication from school, and answer knowing that the attendance secretary will see their answer in English. Parents can easily send pictures of doctors' notes, let the school know if their child is with them or at an appointment, and when they will return to school, all in real time. Similarly, if the attendance secretary or the Attendance Intervention system can remind a parent with a simple text message how many unexcused absences a child has and the consequences of that status, respondents reported that parents act more quickly than before Attendance Intervention was in use. School attendance secretaries no longer have to produce letters to send in the mail to parents, often with inaccurate mailing addresses.

Impacts and Value of Using PowerSchool

The next five interview questions asked participants to describe the overall value of Attendance Intervention for themselves and their students. First, participants were asked what they found to be the most beneficial features of the program, using the list below to prompt discussion. These features are listed in Table 7 in order of most to least favorable reports.

Table 7

Perceived Value of Program Features

Feature	Number of Favorable Comments	Use
Two-way communication between school and home	9	Critical to everyday operations
Translated communications	9	Used regularly and often
Ability to see all school-home communications for a single student	8	Used periodically for report building and decision-making, parent conferences

Automated attendance communications	6	6/9 respondents were aware of this feature and described it as useful
Digital attendance postcards	6	Comments were mixed; one respondent commented that with some adjustments for specific school contexts these could be useful; teachers and administrators were very excited about using these.
Student progress notes	6	Used most often by teachers and administrators.
Attendance data dashboards	5	Used every day or often
Mass communications	2	Office staff found this feature difficult to reconcile with existing attendance data due to the mid-year start; its use was stopped until discrepancies could be reconciled. Four users reported that this feature, once on track, is extremely valuable in keeping parents informed and engaged.

A clear theme emerged from these discussions—time is a critical issue for improving communications with families. The efforts of attendance secretaries and main office staff who deal directly with families on a daily basis are more efficient and accurate when communications are clear, consistent, and timely. All reported that they expect tools such as translated, two-way communications with families, and regularly updated dashboards to have a positive impact on attendance as they become regular with practice. Several attendance secretaries explained that in the past, they did not have time to look at attendance data often enough (daily rather than weekly) to initiate next steps when needed, nor could they successfully get in touch with parents quickly enough to mitigate attendance issues. With Attendance Intervention, they felt empowered to make a difference in students' attendance, and that parents appreciated the information they sent. Attendance Intervention has made an overwhelming task manageable according to respondents. It was also noted that automated systems are especially helpful when the attendance secretary is out of the office. Teachers and administrators love being able to communicate with parents about improvements needed, as well as improvements students and families are making. Having data and communication tools all on one platform makes regular, actionable conversations between home and school possible for busy teachers and administrators. Teachers explained that the platform creates easy to understand visuals for parent conferences,

and class-wide mass communications allows teachers to easily and quickly send the same reminder to all parents in individual emails.

Question 9 asked if and how Attendance Intervention figures into schools meeting district and state attendance requirements. Eight of nine participants agreed that the program is helpful for the following reasons:

- Because total unexcused absences are reported regularly, school staff and parents can work together to catch problems early, as they emerge
- Communication is more timely
- More parents are communicating with the school and more parents feel comfortable communicating with office staff
- Parents are less concerned about calling often, even daily if needed
- Parents now recognize and expect communications from school and are much more likely to read and respond to them

One respondent explained that at the district level, the program will become more efficacious once all schools are using Attendance Intervention.

Question 10 asked participants about the impact of Attendance Intervention on attendance teams. There are small attendance teams in each school and a larger attendance team at the district level. The school-level teams are benefiting from the increased frequency and quality of communications with families, and data management tools make decision-making timelier and more well-informed. Two commenters explained that more consistency is needed across all platforms in the program. Some data are reported in different formats across the program, making it difficult for an attendance team to organize and report information. Another explained that the program will not be fully utilized until all schools in the district are using it.

Questions 11 and 12 asked participants to report any impact on student attendance since implementing Attendance Intervention, and experiences or anecdotes related to improvements in attendance, family communications, or engagement. All respondents agreed that communications have greatly improved, that there are fewer mistakes made regarding excused versus unexcused absences, and that parents are more willing to work with the school to lower unexcused absences. When parents can easily see how many unexcused absences a child has, they act quickly to send in missing notes. It was also the consensus that it is too early to know exactly how and why PowerSchool impacts attendance rates, but that trends are definitely moving in a positive direction. One interviewee related the story of a mom who appreciates that the school can easily and consistently let her know when her son arrives at school; she leaves for work before he leaves for school. The boy has been experiencing mental health issues and it gives the mom peace of mind to know that he has made it to school. Another interviewee explained that when a high school student was chronically

tardy, the easier communications with parents provided by Attendance Intervention helped to solve the problem.

Use of Platform Reports and Student Outcomes

Participants were asked to share their experiences with Attendance Intervention reports and automated attendance interventions. A list of reports was provided as a prompt:

- Student, class, and school-level reports
- District-level attendance dashboards
- Tiers
- Trends over time
- Reasons for absence
- Attendance by day of the week

Attendance and front desk secretaries reported using the school-level dashboard daily to identify red zone students and target them for intervention. The same group explained that the other reports are not part of their daily or weekly routines but may be useful to administrators at the school or district level. One person explained that more customization is needed to make the reports more useful, for example, there are differences between how elementary, middle, and high schools collect attendance data and this needs to be reflected in the reports.

A list of automated attendance interventions generated by Attendance Intervention and sent to families was listed to solicit feedback about changes in behavior:
- Daily attendance notifications
- Monthly digital attendance postcards
- Ongoing digital attendance letters

All respondents confirmed that communication is an important precursor to behavior change, and that the consistency and efficiency of Attendance Intervention notifications is helping to reach more families, in real time, and helping families understand their child's attendance status. One respondent explained that this is especially helpful for families of English learners, who make up almost 40% of the population at her school. Two respondents noted that the late start in March made it difficult to understand how best to use the reports, adjust reports to make them more useful, or to collect data on their efficacy. Report use is role-dependent, so one person felt they did not have enough first-hand knowledge to answer this question because they did not use all of the reports regularly. However, teachers and administrators indicated that Attendance Intervention reporting is an important factor in the improving attendance picture in their school.

Question 16 asked participants to describe specific pluses or minuses for grade levels, special needs students, or ELs. Responses were consistent with earlier responses regarding overall benefits of Attendance Intervention. English learners and their families were mentioned most often as benefitting from improved communications because of the translation feature. Having instant translation on both ends of the text conversations was reported as a "game changer." Parents are now comfortable responding to messages to the school right away, and are able to send pertinent information immediately, allowing school staff to document attendance without multiple communications over time. As grade levels increase, so do attendance challenges. The increased need for Attendance Intervention in middle and high school was mentioned by two respondents. Keeping in regular, frequent communication with families due to the ease of text messaging was mentioned by two participants as beneficial to all students. Four participants replied that they have not seen the program in use long enough to know for sure that it is impacting all sub-groups but believe that Attendance Intervention has the potential to do so. There was unanimous agreement that the translation feature improves communications and possibly attendance for English Language Learners.

Suggestions for Program Improvement

Interviewees were asked to discuss improvements, new features or functions needed, and any other suggestions for future program development. All respondents explained that overall, Attendance Intervention had made their jobs easier, communication with families has improved, and chronically absent children have been better served. Comments included, "amazing platform," "please keep it," and "this should be in every school." Overall, interviewees had few requests for improvement, explaining that they were thrilled to have the platform, it was easy to use, and it is improving communications with families without adding more work for educators. The improvements mentioned most (three out of nine respondents), were technical issues related to consistency across all platforms that make up Attendance Intervention. For example, when students are placed into tiers or groups by attendance, different colors are assigned to these groups, yet colors have different meanings across all Attendance Intervention features. Users would like conformity for ease of use and communication across school teams. One person explained, "Everyone needs to be on the same grid, and use all the same colors so everyone in the school can communicate." Three interviewees would like more characters allowed in mass communication texts. Finally, mentioned by one participant, was the need to increase support and training during start-up, and hoped that a new handbook with more comprehensive information would become available.

Summary

In this QED study, nine Attendance Intervention users participated in discussion-style interviews. This report directly addresses the second of the study's two research questions: What are users' perceptions of the program with regard to:

   a) Benefits for students?
   b) Implementation requirements?
   c) Strengths and weaknesses?
   d) Recommendations for implementation improvement?
   e) Recommendations for product improvement?

All of the responding staff completed an 18-question interview that encouraged discussion and sharing information that the participants deemed important to improving the PowerSchool products they used. Key findings related to the research question include:

1. Respondents consistently reported that AIS benefited students, families, and staff responsible for communication regarding attendance. Families became more informed, communications occurred in real time, facilitating better attendance and record-keeping.
2. Implementation requirements and start-up practices were supportive; feedback from users could fine-tune support.
3. PowerSchool and school staff could make the programs more flexible to meet the needs of different grade bands (see below).
4. Reports such as tracking the attendance tiers for students are helping teachers and administrators track students for intervention, celebrate student success, and guide school-wide strategies for improvement. Reports allow teachers to easily see a comprehensive picture of a student's record in real time, improving communications with parents. Reports also help the school and district level attendance teams monitor trends and implement strategies for improvement. Being able to accurately track attendance, reasons for absences, collect documentation from parents, and communicate regularly with families in mass communications, as well as one-on-one, is saving time, effort, improving accuracy, and helping schools to meet district goals.

Discussion

The purpose of this evaluation was to examine the efficacy of PowerSchool's Attendance Intervention program on Grade K-12 students' attendance, using a quasi-experimental design across Seaford School District schools. Attendance outcomes measures from two elementary schools that used Attendance Intervention were compared with those from two other district elementary schools that continued to use existing (business-as-usual) practices for attendance monitoring. The district's middle school and high school also implemented Attendance Intervention; as no comparison schools were readily available within the district, attendance outcomes from these two

schools were examined descriptively, as well as compared with statewide attendance data. In addition, qualitative interview data were analyzed to examine teacher and administrator perceptions of Attendance Intervention platform implementation in Seaford School District.

The results of the quantitative analyses showed generally positive impacts of the Attendance Intervention program on student attendance outcomes. The main impact analyses showed directionally positive impacts of Attendance Intervention on student attendance rates and counts of days attended, with the impact on counts of days attended also reaching statistical significance. Changes in attendance rates from 2022-23 to 2023-24 were nearly 1% larger for students in Attendance Intervention elementary schools, in relation to the comparison elementary schools, while students in Attendance Intervention elementary schools attended nearly two more days of school, on average, than did students in comparison elementary schools. Follow-up analyses showed considerably larger attendance rate increases at Blades Elementary, in relation to other district elementary schools, suggesting that practices used at Blades may warrant further examination for potential scale up. In addition, descriptive analyses of chronic absenteeism showed generally larger decreases in chronic absenteeism rates in treatment schools than in comparison schools. Taken together, the results of these analyses provide suggestive evidence supporting the efficacy of Attendance Intervention in relation to increasing student attendance and decreasing chronic student absenteeism.

Relating to teacher and administrator interview data, the following conclusions and recommendations are preliminary since implementation is early and limited in scope. Additional research in the future, such as more feedback from teachers and administrators who use the Attendance Intervention platform, will add important information when considering program updates. The following themes related to strengths of PowerSchool emerged across the nine early-implementer interviews:

1. Attendance Intervention eliminates many manual processes related to attendance. Using Attendance Intervention allows front office staff, teachers, and administrators to easily and quickly communicate with families as soon as a student is marked absent, and as attendance rates fluctuate. Parents prefer receiving a text message compared to a phone call from school, and the translation feature makes communication easy for parents and caregivers of English learners.
2. Knowing when a student is absent as soon as possible each day along with quick and accurate communications allows the school staff and parents to act quickly to get a student to school or to register an excused absence.
3. Using texts and regular communications that parents recognize allows teachers and administrators to encourage families to stay regularly engaged with the school, work towards goals for their child, and to keep the school informed when they have concerns or need assistance.
4. Positive messages along with messages of concern help parents understand

      attendance policies, feel comfortable communicating with school staff, and better guide their students.

5. Reports allow teachers to communicate often and accurately with parents. Teachers are able to easily check students' attendance regularly, allowing for timely intervention if needed.

Some limitations of this study should be noted. The results of the quantitative analyses were derived from data from one small school district in Delaware. Thus, generalizability of the results to other populations may be limited. In addition, the analyses of middle school and high school attendance data were only descriptive in nature, thus limiting the interpretability of these results in relation to program efficacy evidence. Future research may focus on comparing student attendance data from middle and high schools that used Attendance Intervention and those that did not, either within one district or across several districts.

Recommendations

Based on early interviews, PowerSchool might consider the following improvements:

1. Work with school staff to allow for more flexible, personalized messaging. Different grade bands need to capture data differently, for example, high schools need to check attendance all day long in a series of classes while elementary schools do not.
2. Keep all data collection and displays as intuitive and consistent as possible across all PowerSchool products and platforms. When colors are used to identify different tiers of attendance or performance, use the same colors across all products to indicate levels. Allow for slightly larger personalized messaging (more characters) to parents.
3. Work with school and district staff to determine what data points are most time sensitive and actionable on a daily basis and make them as easy as possible to retrieve.
4. Use a live system during initial training to allow participants to ask questions as they use it.
5. Avoid mid-year start-ups.
6. Conduct multi-school or district training so staff will have others to communicate with and learn from as implementation begins.
7. Make district level start-up tasks more compatible with existing systems to facilitate data management and running new software.

Appendix A – Interview Protocol

PowerSchool Attendance Intervention Interview Protocol and Questions

Impact Evaluation of PowerSchool's Attendance Intervention Solutions in the Seaford, Delaware School District

Johns Hopkins University

Spring 2023

HIRB Consent Information

Johns Hopkins University is working with PowerSchool in the Seaford School District to evaluate the effectiveness of the Attendance Intervention products and programs as tools for improving attendance, teaching and learning in its schools. Feedback from users is essential to this work. Thank you for taking the time to participate in this interview.

Interview Questions

1. Verify school, position, grade level assignment, etc.

2. What kind of training or preparation did you receive and are you receiving? For example, did you receive:
   - Formal training from PowerSchool staff
   - Formal training from a district trainer
   - Informal training from a friend/colleague
   - Webinar
   - Training Videos
   - None

3. Do you find other available supports helpful? Why or why not?

4. Do you feel prepared to make the best use of Unified Home Attendance Intervention? Why or why not?

5. Please describe how easy or difficult you find Attendance Intervention to use.

6. How big of a challenge is student attendance in your class or school?

7. How big of a challenge is family communication in your class or school?

8. Let's talk about the overall value of Attendance Intervention for you and your students. What are the products' most positive aspects? Which features do you find

most beneficial about? (Probe using this list as needed: attendance data dashboards, automated attendance communications, digital attendance postcards, two-way communication between school and home, mass communications, translated communications, student progress notes, ability to see all school-home communications for a single student)

9. Does UH AIS/MTSS figure in to your school's meeting the state and/or district's attendance requirements?

10. Do you currently have an Attendance Team? How do you see this initiative benefiting from Attendance Intervention?

11. Have you seen an impact on student attendance since implementing Attendance Intervention?

12. Can you think of an experience or anecdote in which Attendance Intervention helped improve student attendance and/or family communications and engagement?

13. What would you describe as challenges or opportunities for improvement?

    (Follow-up questions based on answers to the above) We'd like a little more information about _____.

14. Attendance Intervention provides access to a number of reports. Which are your favorites and how do you use them? (Student-level, class-level, school-level, district-level attendance dashboards, tiers, trends over time, reasons for absence, and attendance by day of the week, among others)

15. Are you aware of the automated attendance interventions that Attendance Intervention sends to families? If so, have you noticed a change in behavior? (daily attendance notifications, monthly digital attendance postcards, ongoing digital attendance letters)

16. Tell us about specific pluses or minuses for your grade level. Special needs children? Bilingual or ESL children?

17. What do you wish the Attendance Intervention offered that is does not yet?

18. Wrapping up – do you have any additional comments or suggestions would you like to offer us to include in our report to …?

Thank you so much for giving up part of your day to spend time with us.

Appendix B: Supplementary Descriptive Analyses

Table B1

Unadjusted Attendance Metrics, by School, 2022-23 and 2023-24

School	N	Days Enrolled	Days Present	Attendance Rate
Blades				
22-23	321	77.76	70.89	91.17
23-24	445	85.51	80.64	94.30
Frederick Douglass				
22-23	311	86.38	81.60	94.47
23-24	477	84.87	80.77	95.17
Seaford Central				
22-23	306	84.23	79.76	94.69
23-24	464	84.53	80.59	95.34
West Seaford				
22-23	399	79.90	75.77	94.83
23-24	572	81.04	77.75	95.94
Middle School				
22-23	677	84.29	77.03	91.39
23-24	891	84.79	78.32	92.37
High School				
22-23	812	80.18	69.20	86.31
23-24	995	81.15	73.34	90.38