Case Study

Safer Schools with More Instructional Time

Intervention Management

Mr. Elmer
www.mrelmer.com

Improving school culture, student character, and safety.

About this Study

In this study, we look at a rural, Midwestern high school. The administration wanted to ensure school safety and refine classroom time management. Getting this information allows improvements to safety, mentoring in classroom management, and reduction of interruptions in instructional time.

Major points we discuss:

Real-time Awareness	Allowing all staff to see school operations in real time gives educators insight into their school's operations, and empowers staff to make decisions that positively impact the schools learning culture.
Safety	Unsupervised students are a liability to a school. Real-time hall monitoring software gives a school an important addition to staff and student safety.
Instructional Interruptions	Beyond real-time, a school can look at its past performance. Understanding unproductive patterns and routines creates opportunities to improve current management of instructional time.
Emergency Notification	With a single click, an alert is created for the whole school and a text message is sent to administrators, school resource officers, and any other configured staff.

Mr. Elmer is an education software company with the goal of "Improving school culture, student character, and safety". We are a team of educators, data scientists, and entrepreneurs delivering simplifications to the modern data driven school. Our web-based software complements a school's existing student information systems and student behavior programs.

This case study showcases best practices and highlights successes in the many ways our software can be applied. We are excited to share this study with you, and grateful for your interest in empowering teachers to ensure school safety and improve effective use of total school instructional time.

Sincerely,
Doug Mackay

Founder, Mr. Elmer

Setting

In this study, we focus on a rural, Midwestern high school. This school serves roughly 300 students with over 30 staff and teachers.

While the school had no existing hallway safety issues, the administration sought to empower teachers to ensure school safety and effective use of total school instructional time. We saw an opportunity to improve operational processes with data.

Currently ongoing, this case study shows the results from the first semester of this implementation. We show the initial data collection and preliminary results.

Challenges

The key goal of this school administration was to ensure school safety and effective use of instructional time through cultural change. In responding to this challenge, we needed to do this without adding hardware, physical devices, or impacting current precious instructional time. This required a whole-school, real-time solution.

All staff needed to see data in real-time. Our next challenge: communicate the present state of the school, outside of the classroom, to all staff. **We had to show the number of students in the hall, who they were, and how long they had been out of class.** If any issues were present, we made viewing these simple and easy for staff.

In order to show who was in the hall, we had to have a standardized method to issue hall passes. **We had an operational challenge to maximize ease and efficiency and minimize teacher time and effort to issue a pass.** The solution needed a common, consistent method to gate students into the halls.

It is important to note: nowhere in our challenges were we monitoring actual physical locations or requiring students to carry a tracking device. **The personal privacy of students remained intact.**

Approach

To have a whole-school solution, we had to absorb the whole of the school's data. **We integrated with the school's existing Student Information System (SIS) to keep data between Mr. Elmer and the school in sync.** By tying the SIS export mechanisms to Mr. Elmer's import, a simple integration was established between them.

Once student and class data was in, all teachers were trained to use the system. **The software was simple enough to train a core group of teachers in 30 minutes.** This group went on to train the remainder of the school. Within two weeks, the system was up, teachers trained, and school began utilizing a new operational model.

It was important to minimize impact on teacher time. **Teachers saw their current class roster in front of them at all times, and in one single mouse click could issue a pass.** Passes were pre-set with an initial time limit and reason. Teachers could adjust as needed. Sample pre-sets are given below.

Hall Pass Duration	Reasons to Issue Pass (most used to least)	
3 Minutes Minimum	Bathroom (most used)	Library
	Other	Counselor
5 Minutes (Default)	Office	Lunchroom
	Locker	Special Education
20 Minutes Maximum	School Leader	Dean of School Culture (least)

Table 1: Durations and reasons for hall passes in this study. We had a 5 minute default duration. Reasons are given from most used (top to bottom, middle column) to least used (right column).

In order to allow rapid response to any concern that might occur in the halls, we added phone contacts to the system. **At the push of a button SMS text messages were sent to this list of emergency phone numbers.** For this study, we added the principal and office staff to the list.

Last, we finalized school configuration by setting some important parameters. We set how long our default hall passes were, how long they were expected to "live". Most importantly, **we set the maximum number of passes allowed in the hall at any one time, preventing unmanageable halls and group gatherings during class time.**

Using the Data

The school used the data in two ways. First, staff took advantage of the real-time information to know what was happening in the school right now. Second, they used historical data to determine how instructional time was impacted by such things as the total number of issued passes, time of day passes were issued, amount of student time out of class, or reason/destination.

For real-time, the key data were active hall passes along side any alerts the system detected. **Everyone accessing the system was able to see the real-time data of students in the school's hallways.** When each student was issued a hall pass, this became live data seen by everyone in the system. If too many total passes were issued, an alert became live data seen by everyone as well. Each pass issued was tallied and displayed next to a student's name.

After the final bell, the system provided historic hall pass data. We used this information to understand the hall pass usage of both teachers and students. The reasons hall passes were issued could be analyzed. **Examining how passes were issued throughout the school at specific points in time revealed trends in usage; this helped refine and validate classroom management practices and increase hallway safety.** Example reports are given in the appendices.

Results

In the first semester alone, 2,968 passes were issued from 24 teachers spanning 287 students. In aggregate, these passes represent over 177 hours, or 22 days of actual absence from instructional time. Over 75% of these passes, as expected, were for a bathroom pass. Other frequently cited reasons were locker, office, and school leader related.

With a simple, 30 minute training using a train-the-trainer approach, we were able to achieve fast and thorough adoption. Of the 32 users in the system, 24 consistently used and issued passes. The remaining 8 users were a mix of staff, placeholders and administration. Adoption spread to all teachers with basic training and a simple, easy to use interface.

The emergency notification was used over twenty times – three times for assistance within the classroom, the remainder for assistance with hall passes. We must note that the severity of a concern – or lack thereof – is not indicated by the existence of a notification.

Historic trending was used at least four times per month – weekly views into the hallway patterns of the school.

Though school policy prohibited hall pass usage during the first ten minutes of each class, data showed teachers were, in fact, issuing passed during this "protected" instructional time. After reviewing data with staff, there was an initial reduction of 7% and a subsequent reduction of nearly 25% fewer passes issued during the first 10 minutes of class time. We credit the improvements to teacher review of the data and teacher awareness impacting policy. These improvements impacted both instructional time and safety.

How This Can Work for You

Allowing all staff to see school operations in real time helps a school understand its operations. **Real-time hall monitoring software gives a school a complementary support to safety and a new method of managing whole-school instructional time.** Teachers can work together, as they teach, to manage these aspects of the school as they occur.

In previous work with other schools, our educator staff noticed that teachers were often unaware of the number of instructional time lapses they allowed within their classrooms. With Mr. Elmer, teachers see the impact of their decisions and are allowed to make decisions that increase their instructional time and minimize disruptions.

We noted an additional benefit to teachers: as the approval of hall passes was dependent on the Mr. Elmer system rather than individual teacher discretion, student-teacher conflict over this issue decreased. The system – not the teacher – issued hall passes based on school policy and the active passes across the whole school.

Beyond real-time, Mr. Elmer's historical data shows past performance. **Understanding past habits allows a school to continually improve current management of instructional time.** Together, staff can pinpoint opportunities through simple graphical reports.

Two Schools: Improve v Maintain?

In practice, we have seen two sides of usage with this software. In this study, the school sought to maintain an already high level of successful classroom and hallway management. Mr. Elmer has also been utilized by schools to address serious concerns over interrupted instructional time and poorly controlled hallways.

Many schools feel instructional time and safety are well managed and do not need improvement. This is common, and in some cases true. Of course, not needing improvement and not having room for improvement are two entirely different things. **As shown in this study already, the data shows there is always room for improvement.**

For those schools with a need for improvement, we have seen results in proportion to the opportunity. While motivations may be different, material improvements are realized.

Appendix A: Main Screen

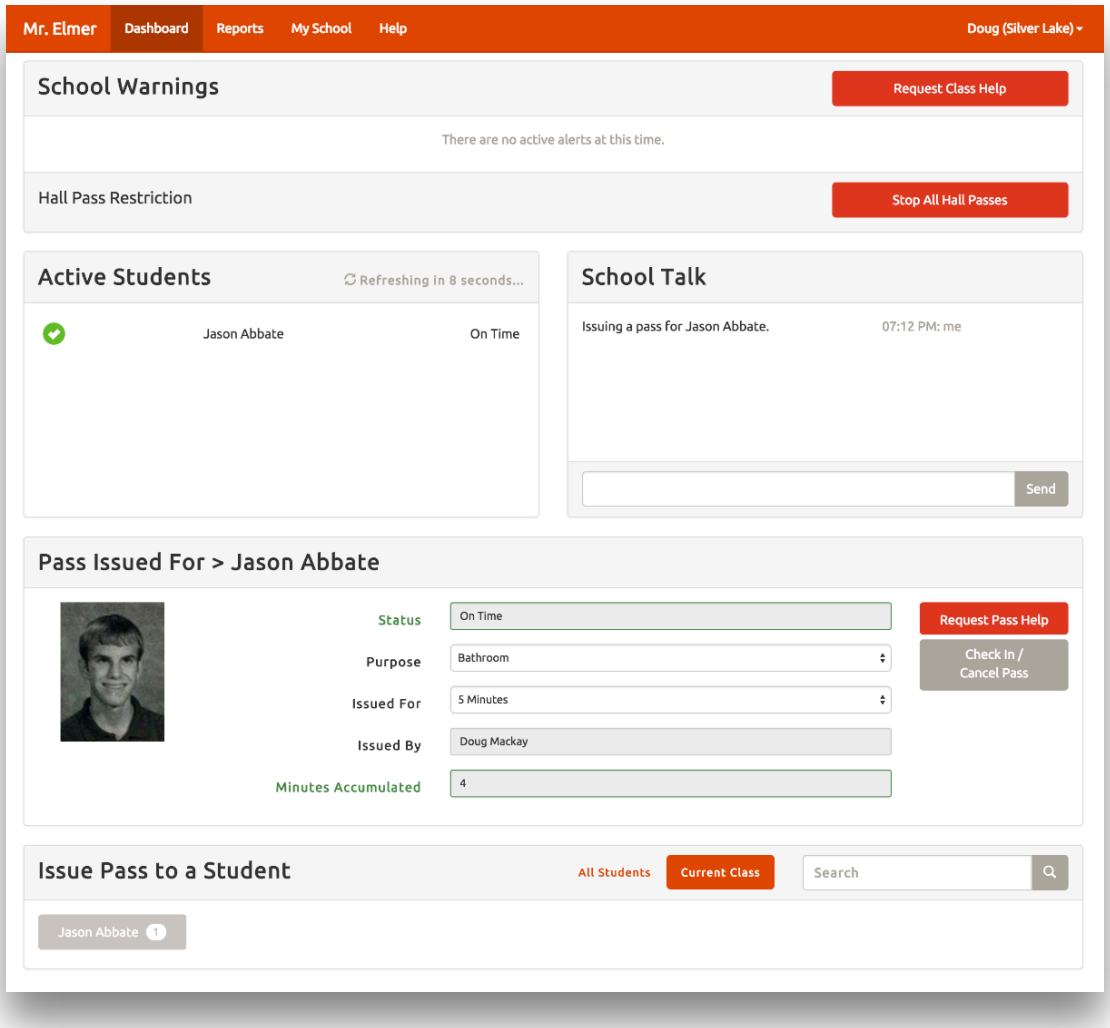


Figure 1: Shown above is the main dashboard with the real-time features.

School Warnings	Any active alerts / warnings for the school will be present here. A teacher may click the red "Request Class Help" button to send an SMS text to staff and emergency personnel.
Active Students	All active hall passes are shown here. Any late passes will show as red, any on-time passes will show as green.
School Talk	This is a live, school-wide "chat" log of all pass activities.
Pass Issued For…	Users see the passes they issued here. Any modifications to the time or reason take one click. Passes are also checked back in with a single click. The red "Request Pass Help" button sends an SMS text similar to "School Warnings".
Issue Pass to a Student	The teacher's entire current class is shown here. One click on any name issues a pass. The number off passes a student has been issued today is shown by their name.

Appendix B: Selected Example Reports

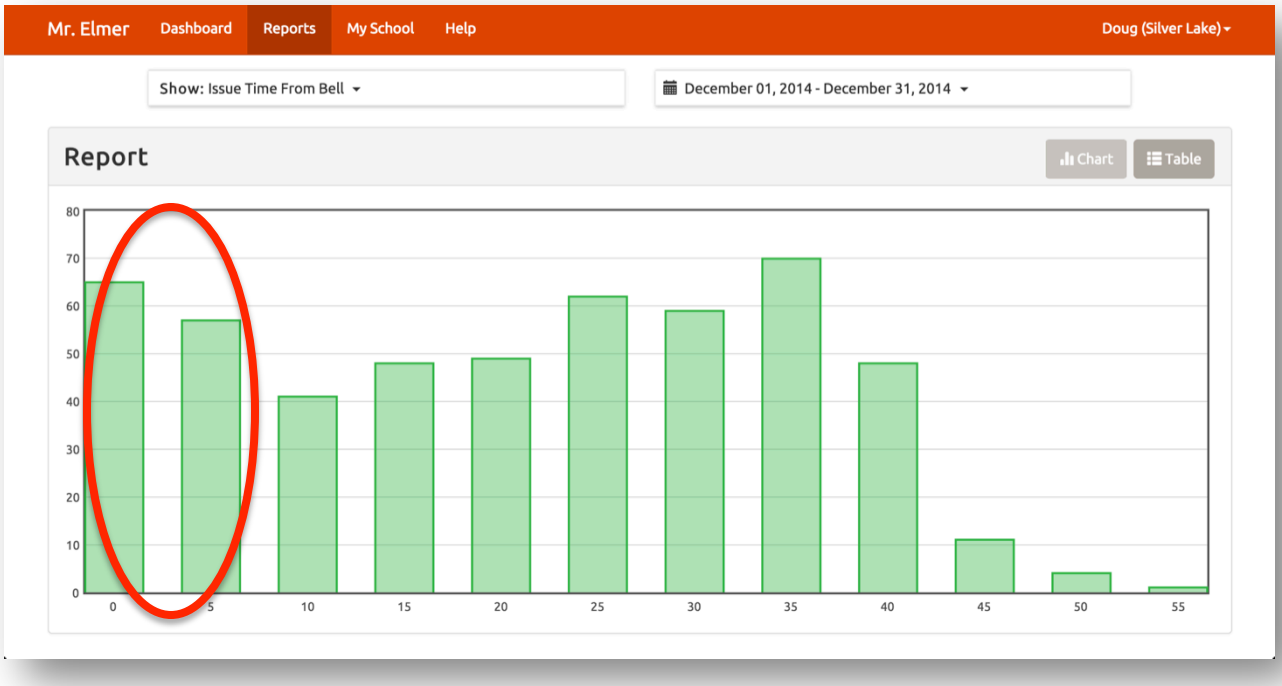


Figure 2: Histogram of pass issue time from bell. Note the large number of passes issued within the first 10 minutes of class, circled in red.

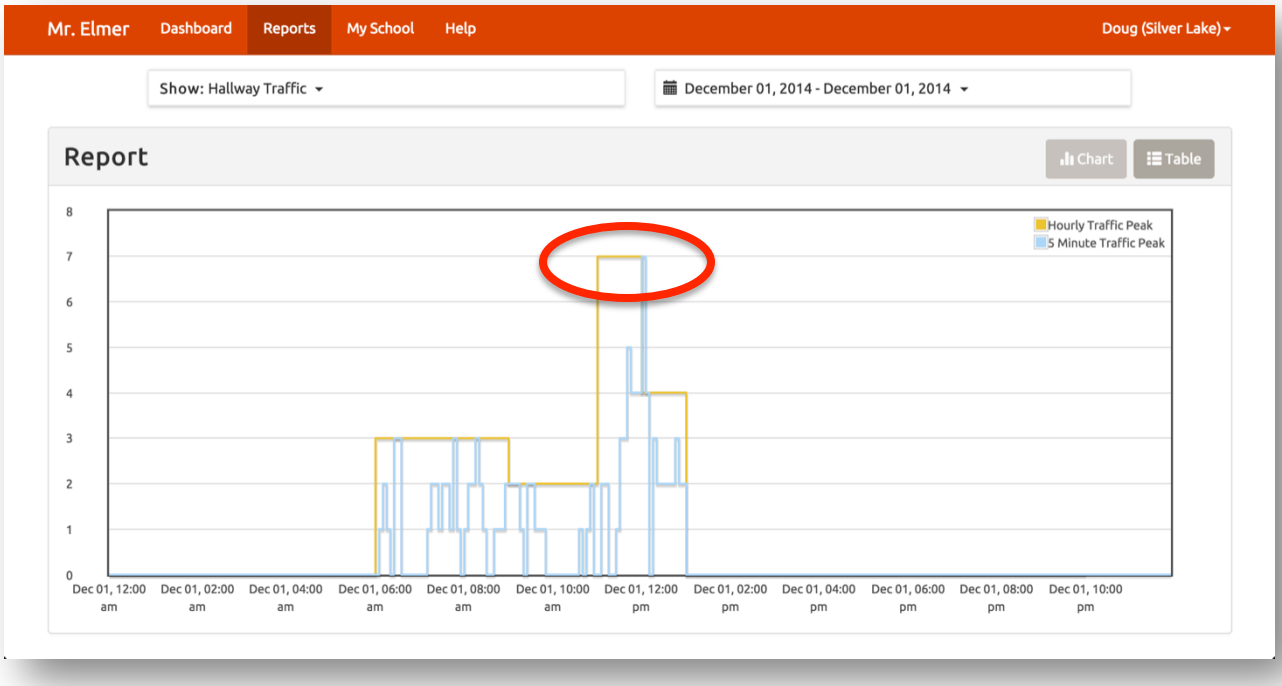
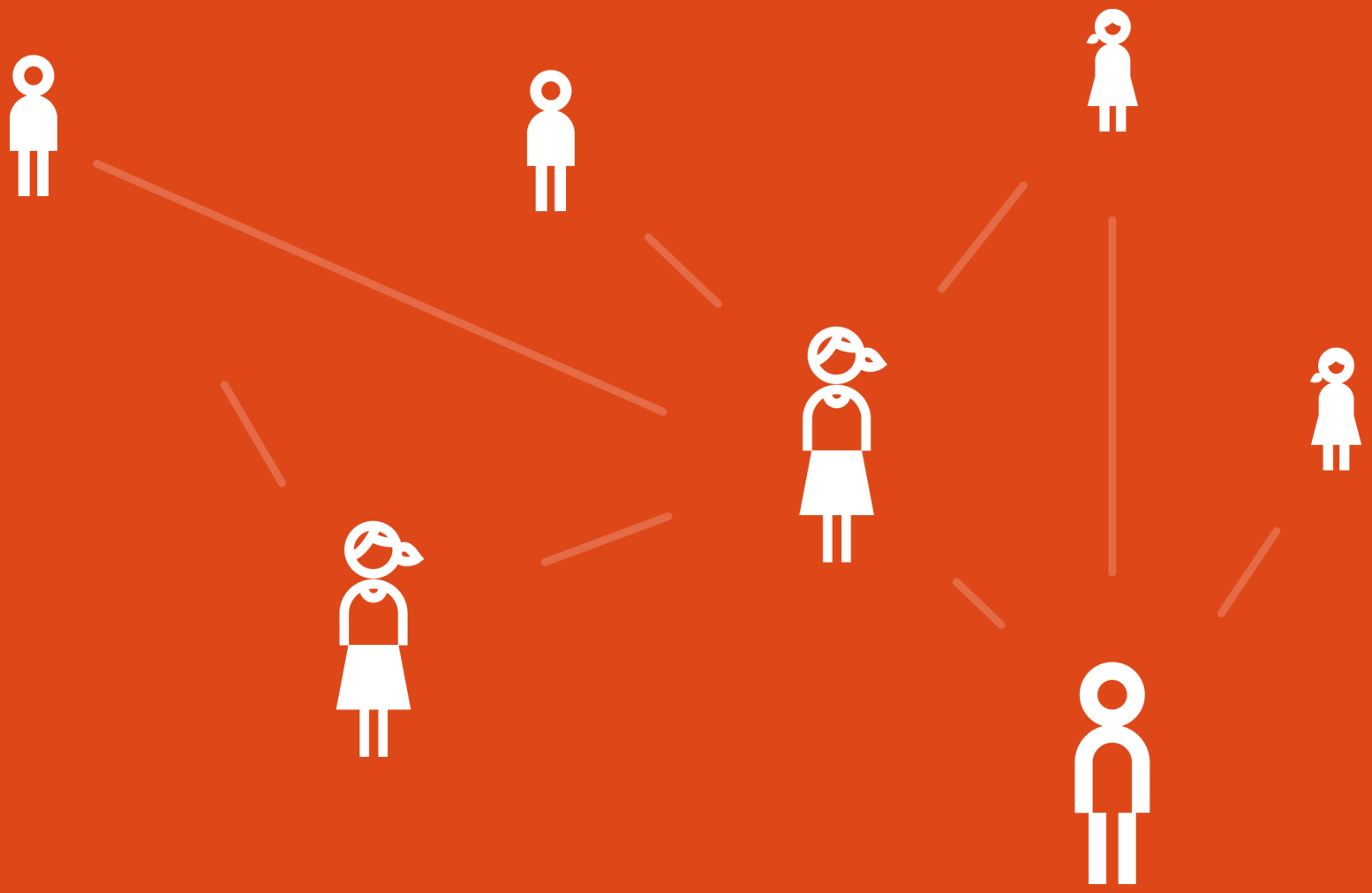


Figure 3: Histogram of pass traffic in the hallway broken into 5 minute (blue line) and 1 hour blocks (orange line). Each peak represents the number of simultaneous passes in the hallway. Note this school had 7 simultaneous passes at noon on December 1.



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