# Improving Attendance of Chronically Absent High School Students 

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#### Abstract

This study examines if building personal relationships with students through positive social conversations and individual conversations after absences can improve students' attendance within high school chemistry classes. There was some variation in the independent variable for the different hypotheses. All subjects $(\mathrm{n}=84)$ received the intervention of positive social conversations and individual conversations after absences were in place. The group of students with chronic high absenteeism $(\mathrm{n}=8)$ also had targeted individual conversations in addition to what all students received. The group of students with recent high absenteeism or past high absenteeism ( $\mathrm{n}=15$ ), had secondary individual conversations in addition to what all students received. The dependent variable was classroom attendance. The attendance of individual students during a baseline of ten class periods was compared to attendance during an intervention phase of ten class periods. For all three null hypothesizes there was no significant difference in number of days present out of 10 during the baseline and intervention periods. Implications and ideas for future research were discussed.


## Chapter 1

## Introduction

Student attendance is very important and chronic absenteeism is a major problem in many public schools. Not being in school makes it harder for students to be successful academically. Over five million children miss at least 30 days of school per year in the United States, which causes a loss of learning time and test preparation (Cosgrove, Chen \& Castelli, 2018). Each day students are absent, it increases the gap between what they have missed and what they have learned, which makes it more difficult for students to catch up to the class once they do return to the classroom (Mahoney, 2015). Students who have many absences miss a lot of opportunities to learn social norms that can increase their ability to understand and follow directions and plan for the future (Brenner, 2011). Students cannot understand and follow classroom and school expectations and rules if they are absent when they are reviewed and practiced.

Young people without high school diplomas are less likely to volunteer within their community, be employed, or vote, and are more likely to be arrested and have a low income (Zaff, Donlan, Gunning, Anderson, Mcdermott, \& Sedaca, 2017). Chronic absenteeism can lead to other negative consequences for the students and schools. Students who are truant are also more likely rely on public assistance, be unemployed/underemployed, have job instability, or be within the juvenile justice system. Weapons-related violence, vandalism, and burglary rates have been connected to truancy. Truant students need more counseling support and tend to receive more discipline referrals, which increases the cost of the school per student (Brenner, 2011).

As a high school general chemistry teacher, this researcher has found it challenging to keep the entire class at the same point in the curriculum and understand new concepts being covered. This is even more difficult when students missed previous classes. High school general chemistry courses build off each other and require previous knowledge in order to complete problems. This researcher has between 10-20 students every year with poor attendance that lose motivation to be successful in chemistry due to the challenges of learning the material without having a strong foundation or the required prior knowledge of chemistry.

In order to prevent these negative outcomes of poor attendance it is important to understand the causes of poor attendance. In order to encourage the positives of good attendance it is important to know different ways to improve attendance. Not every student is going to respond positively to every intervention. That is why it is important as an educator to have a variety of tools at his/her disposal. Building Student teacher trust has been proven through research to be an extremely successful way of improving attendance (Allensworth \& Easton, 2007). For this research the emphasis was on building positive relationships with students due to its simplicity and realistic application on many educators. Educating is challenging and emotionally and mentally draining. Educating also requires a lot of time and energy. It is important to find easy and simple ways to become a better educator and assist the students you are hired to educate.

## Statement of Problem

The purpose of this study is to determine if building personal relationships with students through positive social conversations and individual conversations after absences can improve students' attendance within high school chemistry classes.

## Hypothesis

The first null hypothesis is that for high school chemistry students, there will be no significant difference in class attendance between the baseline and the intervention period during which the teacher built personal relationships with students through positive social conversations and individual conversations after absences. The second null hypothesis is that for a subset of students with ongoing chronic high absenteeism, there will be no significant difference in class attendance between the baseline and intervention period during which they had positive social conversations, individual conversations after absences, and targeted individual conversations. The third null hypothesis is that for a subset of students with only past high absenteeism or only recent high absenteeism, there will be no significant difference in class attendance between the baseline and intervention period during which they had positive social conversations, individual conversations after absences, and secondary individual conversations.

## Operational Definitions

Absence: Students were considered absent if they missed an entire chemistry class period.

Present: Students were considered present if they were present for any portion of the chemistry class.

Students with ongoing chronic high absenteeism: These were students present for $81 \%$ or less of chemistry classes over the 2 nd quarter and the previous ten class periods prior to the intervention (baseline).

Students with past high absenteeism: These were students present for $81 \%$ or less of chemistry classes over the 2nd quarter, but above eighty percent over the last ten class periods (baseline).

Students with recent high absenteeism: These were students present for $80 \%$ or less of chemistry classes over the previous ten class periods (baseline), but above $81 \%$ attendance over the 2nd quarter.

Positive social conversations: These were spontaneous conversations between student and teacher that focused on topics such as student interests, school/community happenings, the positives of being present in class, and encouraging the student to reach out if they need assistance with missing assignments. Conversations were mainly one on one but could involve multiple students if the students joined in. These types of conversations were held with all students in the class, but the frequency of the conversations was not dictated by study design.

Individual conversations after absence: These were one on one conversations with a student the day he/she returned from an absence which reflected an awareness that the child was absent and was now back, pleasure that the child was now back, and encouraged the student to reach out if he/she needs assistance with missing assignments.

Targeted individual conversations: These were one on one conversations held at least weekly between the teacher and students with ongoing chronic high absenteeism.

Secondary individual conversations: These were one on one conversations held at least every other week between the teacher and students with past high absenteeism or recent high absenteeism.

## Chapter II

## Literature Review

Poor attendance can predict dropping out of public school, which decreases a student's earning potential (Brenner, 2011). Each person who drops out of high school costs the government $\$ 292,000$ due to lower taxable income and using welfare programs more (Zaff et al., 2017). Some states lose funding with poor attendance. Students who have good attendance have better scores on achievement tests. Children are more successful academically, socially, linguistically, and in work-related domains with better attendance. School provides a place for academic development, developing social competency and relationships, language-rich environment, and work-related skills. Specifically, schools can help develop persistence, problem solving skills, and opportunities to work with others (Kearney \& Graczyk, 2014). There is a correlation between student attendance and academic success (Sheldon, 2007). Graduating from high school increases students' chances of becoming employed and having higher salaries and decreases students' chances of needing public assistance and participating in criminal activity when they graduate from high school.

This literature review examines what causes attendance issues and how to improve attendance specifically in high school students. Section one discusses the many causes of poor attendance. Section two explains mitigating factors for truancy. Section three reviews the many different strategies public schools and teacher have utilized to improve attendance.

## Causes of Frequent Absences

Typical issues identified with truancy are social, family, and personal variables (Brenner, 2011). Eighty percent of absences are caused by illness, holidays, and family emergencies
(National Resource Council, 2011). Substance abuse, domestic violence, and different priorities can cause students to miss school. Students who live in poverty have a much harder time making education a priority. Parents' who do not value education can cause students to miss school (White \& White, 1997). Parents with mental health issues, single parent households, and parental conflict can cause attendance issues. Some parents may even refuse to bring children to school (Mahoney, 2015). Student's with inconsistent or lenient discipline at home are less likely to attend school. When students believe parents are trying to exert too much control over them, they may also skip school to rebel (Brenner, 2011).

When students do skip school, it tends to alter their mental state and attitude when they arrive back at school. Students who have lower self-esteem or do not perceive themselves as intelligent tend to be absent more frequently (Brenner, 2011). Anxiety, mood, and disruptive behavior disorder can affect students' attendance. Many students miss school due to test anxiety (Kearney \& Graczyk, 2014). Subjective health complaints are the number one reason in a survey for students to miss school, but many students also stated school refusal was quite often a reason for missing school. Some common symptoms of subjective health concerns include gastrointestinal symptoms, musculoskeletal complaints, dizziness, and headaches. Somatic symptoms and mental health problems also lead to students not attending school and truancy. Some students have psychosomatic problems extreme enough to affect their daily lives and could have long-term consequences if they are not identified and treated (Havik, But, \& Ertesvag, 2015).

Some students might not get enough food, sleep, or be emotionally or ready to learn. Students who do not receive the help they need emotionally, mentally, and physical may have trouble focusing on school and suffer academically and become absent more frequently. For
many students it is difficult to manage their personal, work and school life, especially once a student becomes married, pregnant, or has a child (Brenner, 2011).

Teachers and administrator attitudes also have a large impact on student's perception of the school building. Based on a student's perspective of a school, a student may be less likely to attend school. Students who are chronically absent typically do not perceive the school favorably (Brenner, 2011). Many students miss school to avoid things that cause negative emotions and feelings in order to escape social and evaluative situations. Students who find school boring and are not interested in their classes tend to miss school more. Inflexible disciplinary practices, lack of attention to personal academic needs and minimal attendance management practices decrease attendance as well (Kearney \& Graczyk, 2014).

Skipping classes becomes more common when classrooms are chaotic, teachers do not listen to students, and there are no structured consequences or procedures for class cuts (Mahoney, 2015). Students who are not very social and do not feel like they belong or have friends within the school building are more likely to be absent from school, especially when bullying is involved. Students who associate with individuals with delinquent behavior are more likely to become delinquent themselves (Brenner, 2011). Some students skip school to spend time with significant others and other tangible rewards (Kearney \& Graczyk, 2014).

Larger schools and lower socio-economic school buildings may also have lower attendance. Student's lack of connection with a school can lead to truancy. A study done by the University of Houston determined that increases in the number of Katrina evacuees within high schools decreased the attendance rates of the entire building and discipline reports multiple (Brenner, 2011). The increased risk of pathogens such as the H1N1 virus can cause many families to decide not to allow their children to attend public school due to health concerns. Historically
some schools have even shut down for days in order to try and prevent the spread of viruses and diseases.

## Mitigating Factors for Truancy

Children who have parents who maintain high standards and goals, assist and check for homework, attend school meetings, and talk with children about school typically have higher grades, perform better on achievement test, and are less likely to be truant (Sheldon, 2007). The quality of a school's environment is extremely important to attendance, academic success, student behavior, and achieving a high school diploma (Malloy, Bohanon, \& Francoeur, 2018). Parents who are supportive and value education typically improve children's attitudes towards schools. It is harder for students to stay home if their parents do not approve of student's staying home. Furthermore, if students feel connected or attached to the school it can help prevent truancy. It is important for students to find a place they belong to be successful. If students feel cared for by adults it can help students overcome attendance issues (Brenner, 2011). If students are more behaviorally engaged, then they are more likely to continue to enroll in classes and less likely to drop out of school (Zaff, et al., 2017).

Motivational climates within classrooms can also increase students' success and provide greater feelings of satisfaction when they accomplish their goals (Cosgrove et al., 2018). Safe and healthy schools that encourage challenging curriculum and reinforce high expectations provide students with motivation to attend school. These expectations include academic, behavior, and social responsibility guidelines. The best kind of motivation are intrinsically driven because they do not require external input. This means that students will come to class because they do not want to miss classes, have make up work, and hope to be successful academically. The more students attend school the greater their academic achievement (Brenner, 2011).

## Improving Attendance

Attendance policies and expectations can improve attendance in many ways; such as punishment, rewards, or connections. The specific type of attendance policy is not found to be more effective or less effective. The most important thing about attendance policies is that they have clear expectations and standards. Students also should feel cared for and accepted. Student's should also feel that they have a purpose and structure. Incorporating lessons of problem-solving skills can improve students' attendance. Building relationships with students, monitoring attendance, and communicating with parents increases attendance as well. Students should understand that there are consequences for being absent from school (Brenner, 2011). Schools that help identify subjective health complaints can help prevent students form skipping school (National Resource Council, 2011). Ideally smaller schools that connect students with school businesses and increase communication with home improve student attendance (Sheldon, 2007). Attendance improves as students' needs are met. Schools can provide a stable environment, shelter, water, food, and a sense of belonging that is lacking in students' lives. Increasing student involvement in extracurricular activities improves attendance (Kearney \& Graczyk, 2014).

Some schools have introduced test exemption policies, typically focused on finals. Students are exempted from different tests based on having good attendance and grades. The less absences students have, the lower grade they could have and still be exempt from taking a final. Also, all absences must be excused. This policy did improve attendance. More students had less absences and required to make up fewer assignments and tests (White \& White, 1997). Some schools provide certificates, prizes (money), and privileges to students with good attendance.

Fort Worth, Texas incentivized students using laptops, kids' bedroom furniture, baseball tickets, gift certificates, iPods, and automobiles for good attendance (Brenner, 2011).

Punitive policies can provide a positive impact on student attendance. Many schools' have policies that cause students to fail their courses if the student misses a certain number of classes. In some systems students can also be held accountable by the juvenile systems and parents can even be charged with neglect charges, receive jail time, or lose custody if students are absent from school too much. Minnetonka High School implemented a policy that required parents to be contacted and students to meet with the teacher within 36 hours of a student missing a class (Brenner, 2011). Students were also assigned with a detention for every unexcused absence. This resulted in unexcused absences dropping by $42 \%$, disciplinary referrals dropped by $64 \%$ and suspensions decreased by $37 \%$. Students also lost school privileges based on absences. Tickets and fines have also been provided by different school systems for being absent (Brenner, 2011). Providing court proceedings within the school in order to bring families and caseworkers together can improve attendance (Kearney \& Graczyk, 2014).

It is imperative to bridge the language and cultural differences of school faculty and parents through the use of interpreters, visiting students' homes, educating staff about culturally responsive content, encouraging integration of different cultures within the school, providing child care for parent-teacher conferences, diversifying school personnel, and using a variety of languages directed toward all family members within event invitations of the school (Kearney \& Graczyk, 2014). It is also important that students feel welcomed and important within their classes (Mahoney, 2015). A California district stopped making automated calls and started making personal calls to parents. Some school systems also provide extra support and counseling to families including mentor/peer counselors for chronically absent students. Some schools also
provide contracts that allow students to express their reasons for being absent. The MontezumaCortez School RE-1 District in Colorado required parent meetings once students missed over 10 days of school. After the meeting, if attendance still does not improve, they are sent to the Student Attendance Review Board including a variety of community members to attempt and address the student's needs (Brenner, 2011).

It is also important to increase family involvement in the school and community. In order to do that it is important to increase communication with the parents, recruit parents to volunteer at the school, provide information to families about how to help students with homework, and involve community-based resources to improve school programs. Some programs connect school officials with family members and routinely monitor chronically absent students and other misbehaviors. Life and social skills can also be taught to students in order to remove barriers that deter students from attending school (Kearney \& Graczyk, 2014). Changing chronic absences takes school wide improvement structure, teacher buy in, positive interactions from students, and collaboration from families and teachers (Mahoney, 2015).

The Response to intervention model is a decision-making process that uses evidencebased strategies determined by students needs and regularly monitors students' progress. The main thing is that this model is an entire system wide approach with proactive and preventive efforts and interventions to students' needs (Kearney \& Graczyk, 2014). This model is also called School Wide Positive Behavior Intervention and Support. This model has a significant positive effect on attendance. Schoolwide expectations should be clearly defined, taught, and reinforced using data-based decision-making to monitor implementation and results. Levels of support should be differentiated based on student needs. Interventions should also be organized,
monitored, and supported to increase earlier access to more intensive supports (Freeman, Simonsen, McCoach, Sugai, Lombardi, \& Horner, 2015).

Typically, the strategies are provided in three different ways, universally, targeted, and intensive interventions. The universal interventions are used on all students with major researchbased strategies, but students are screened a couple of times a year to see who requires more intensive strategies (Malloy et al., 2018). Ideally the major research-based strategies help 80$90 \%$ of students. The targeted strategies focus on the at-risk students who need extra support. The targeted students are monitored more frequently (5-10\% of students). Intensive interventions are directed towards students with severe or complex problems who need more individualized and concentrated approaches and more frequently monitored progress (1-5\% of students). Early identification and intervention with monitoring progress is important. Functional behavioral assessment, procedures and protocols should reduce obstacles to academic success, compatibility with other approaches, and team-based approach to implement in order to have the most success. This model requires cooperation from everyone within the community including medical and legal personal such as lawyers and mental health professionals. Conflict resolution and antibullying and violence should be an emphasis of this model (Kearney \& Graczyk, 2014).

All students should be educated on preventative health procedures to promote better health such as increased hand washing and flu immunizations. There should also be specialized educational opportunities for students with chronic medical conditions. Mental health should also be promoted within the school including social emotional learning in order to improve attendance. Substance abuse prevention programs, anger management, conflict resolution, and sex education should also be taught. Mental health programs should also involve academic remediation strategies to improve tardiness, absenteeism, and dropout rates. Character education
focusing on core values and life skills should also improve attendance (Kearney \& Graczyk, 2014). Students should also be provided specific instruction about positive social interactions and positive reinforcement within the school. This model makes the school more predictable and is enforced for all students and staff supports (Freeman et al., 2015).

The targeted students typically participate in small group learning (Malloy et al., 2018). Students can also be assigned a peer mentor who checks in on the absent students and encourages the students to attend class and help remove barriers that students might have to overcome in order to attend school. This can especially helpful when attending a new school. Ideally daily or weekly attendance should be monitored in order to provide early intervention. (Kearney \& Graczyk, 2014). Intensive interventions focus on individualized behavior support (Malloy et al., 2018). In extreme cases students may be referred to alternative or self-contained educational programs. These programs can focus on attendance and academic work (Kearney \& Graczyk, 2014).

## Chapter 3

## Methods

The purpose of this study was to determine if building relationships through personal conversations can improve attendance.

## Design

This study utilized a pre-experimental one group pre-test/post-test design with a convenience sample of the researcher's students. There was some variation in the independent variable for the different hypotheses. For all hypotheses, one independent variable was whether the intervention of positive social conversations and individual conversations after absences were in place. For the second null hypothesis, an additional component of the independent variable was whether there were targeted individual conversations. For the third hypothesis, in addition to positive social conversations and individual conversations after absences, a component of the independent variable was whether there were secondary individual conversations. The dependent variable was classroom attendance. The attendance of individual students during a baseline of 10 class periods was compared to attendance during an intervention phase of 10 class periods.

## Participants

The participants came from a diverse, Title 1, suburban, mid-Atlantic school. In the 2017-2018 school year, the targeted school had 1403 students and $52 \%$ of the students came from low income households. $33 \%$ of the student body missed at least 15 school days that year (below $92 \%$ attendance). The school has policies about improving attendance, such as students losing credits for chronic absence within a class (determined as missing 11 class periods out of 90 for a specific class taken every other day). However, loss of credit for chronic absences can
be waived by the administration. Students are also supposed to receive administrative lunch detention for being late to school, but this penalty can also be waived. Absences within the classroom are up to the teachers to manage and it is recommended to use increasing consequences such as warning for the first time being late to class, call home for second time being late to class, after school detention for third time being late to class and referral for fourth time being late to class. Not all teachers enforce this policy and some of the teachers that enforce this policy do not double check school attendance and penalize students for skipping an entire class period. Teachers are supposed to call home for a first offense of students skipping a significant portion of class, assign after school detention for a second offense, and assign a referral for a third offense. Some teachers are also inconsistent in applying the penalties for cutting class. Overall, the school attendance policy is not sufficiently effective, and most of the burden of maintaining attendance standards falls on the teacher.

The researcher used a convenience sample of students from three of his five chemistry classes. The three classes were selected based on having the greatest number of students with $81 \%$ or lower attendance over the previous ten class periods (baseline). Once the classes were selected, students' second quarter attendance was analyzed to determine who had a past history of poor attendance. Students that had an attendance rate of $81 \%$ or lower over the previous ten class periods and $2^{\text {nd }}$ quarter were selected for targeted intervention due to their history of high absenteeism. Students who $80 \%$ or less attendance over the previous 10 class periods or $81 \%$ or lower attendance over the second quarter (but not both types of absenteeism) were secondary targets of the intervention. There was some overlap between the second quarter and the 10 days of the baseline period.

The total sample consisted of 84 students from the general student population who chose to take chemistry as a graduation requirement in replacement of integrated physics and chemistry. The students came from three different chemistry classes each consisting of 28 students between tenth and twelfth grade. The students were equally represented by 42 boys and 42 girls. The sample was relatively racially diverse with 38 students reporting as African American, 24 as Caucasian, 6 as multiracial, 5 as Asian, and 11 as Hispanic. Of the 84 students, three had 504 plans and eight had Individual Education Plans (IEPs). The ongoing chronically absent students consisted of four boys and four girls. One of those students had an individual education plan, four reported as African American, three reported as Caucasian, and one reported as Asian. The students with a history of high absenteeism consisted of three boys and six girls. One of those students had an IEP and one student had a 504 plan. Two students within this subset reported their race as African American, three as Caucasian, two as Hispanic, and 1one as multiracial. The students with a recent high absenteeism consisted of one boy and five girls. Within this subset four students reported as Asian, one as Asian, and one student as Hispanic.

The sample of students was a pretty good representation of the entire school. The entire school was evenly distributed by gender with $51 \%$ female and $49 \%$ male. $45 \%$ of the student body is African American, $36 \%$ is Caucasian, $10 \%$ is Hispanic, $6 \%$ is two or more races, $3 \%$ is Asian, and less than $1 \%$ is American Indian, Alaskan, Hawaiian, or Pacific Islander. These demographics compare with the sample size students, except that the percentage of Caucasian students was slightly higher for the entire student body versus the sample of students utilized for this research.

## Instrument

Students' attendance was tracked by the researcher in Excel documents as part of regular classroom procedure. Students were considered absent if they missed an entire chemistry class period. Students were considered present if they were present for any portion of the chemistry class Students that missed significant class time due to reasons such as bathroom breaks, testing, and meetings with school officials were still marked present. A student that missed the entire class period was considered absent regardless of the basis for the absence such as doctor visits, medical reasons, testing, or skipping class.

## Procedure

This research study was conducted in high school chemistry classes that were all taught by the same instructor/researcher. The class incorporated a variety of teaching techniques and strategies such as lecture, experiments, classwork, research, group work and assessments. The way the content was being taught changed based on what teaching techniques would work best for teaching the content. "I do, we do, you do" strategies were utilized for teaching many complex mathematic concepts. Complex symbols and expressions were taught using whiteboards and discussion and lecture were utilized to teach vocabulary and complex concepts. All experiments were conducted in small groups of two to four students and all the research was done individually. Students could assist each other and ask questions of the teacher/researcher during all aspects of instruction other than assessments and lecture. During lectures students were able to ask the teacher questions freely but limited to clarifying questions during assessments. During all aspects of the course the teacher circulated around the room helping and motivating students through encouragement and redirection.

Prior to this research, there had not been any systematic procedures in place related to frequency or focus of private conversations. Teacher and student conversations occurred based on behavior and request of students for a conversation with the teacher. Prior to the study make up work was placed in a specific bin for students who were absent. If students were absent repeatedly in a short period of time the teacher would have a private conversation with the student, but it was more random than systematic. The need to complete make up work was brought up and reiterated to students as a class instead directed towards individual students.

As part of regular classroom procedure, this researcher tracked the attendance of all his students in his five chemistry classes. The school is on an A day/B day schedule, so students were in chemistry class every other school day. Class attendance rates were reviewed over a tenclass period from January $10^{\text {th }}$-February $7^{\text {th }}$. The three classes that had the most students with attendance rates of eighty one percent or less were chosen for the intervention. Once the classes were selected, the attendance of the students over the second quarter (November $12^{\text {th }}$-January $24^{\text {th }}$ ) were reviewed to identify students with a history of high absenteeism in comparison to recent high absenteeism. There was an overlap between the previous 10 days that was used to determine recent high absenteeism and the second quarter utilized for a past history of high absenteeism. Students that had an attendance rate eighty percent or lower over the previous 10 class periods and $81 \%$ or less over the second quarter ( 17 or less days present out of 24 ) were selected for targeted intervention due to their history of high absenteeism. Students that either had $80 \%$ or less attendance over the previous 10 class periods or $81 \%$ or lower attendance over the second quarter, but not both types of absenteeism, were secondary targets of the intervention.

During the study the emphasis of the research was having more targeted and frequent positive social conversations with students. These were spontaneous conversations between
student and teacher that focused on topics such as student interests, school/community happenings, the positives of being present in class, and encouraging the student to reach out if they need assistance with missing assignments. Conversations were mainly one on one but could involve multiple students if the students joined in. These types of conversations were held with all students in the class, but the frequency of the conversations was not dictated by study design. The researcher also made sure to have individual conversations after absences of students. This consisted of positive individual conversations the day after the student returned from an absence which reflected an awareness that the child was absent and was now back, pleasure that the child was now back, and encouraged the student to reach out if he/she needs assistance with missing assignments. Targeted individual conversations were one on one conversations held at least weekly between the teacher and students with ongoing chronic high absenteeism and secondary individual conversations were one on one conversations held at least every other week between the teacher and students with past high absenteeism or recent high absenteeism.

Targeted individual conversations with students lasted about two minutes during various points of the chemistry class depending on how talkative the students were during the conversation and how the class was going. The goal of the intervention was to make students feel wanted, welcomed, and missed if they had been absent, without making students feel uncomfortable, pressured, or anxious. Overall, when students were present, the ones in the chronic and ongoing high absenteeism group had the most individual conversations with the researcher; the students with past high absenteeism or high recent high absenteeism had the second most individual conversations; and the remaining students had the least amount of individual conversations (although more than they had prior to the intervention).

Implementation of the conversations lasted ten class periods from February $10^{\text {th }}$ to March $9^{\text {th }}$.

After the ten-class intervention, the mean attendance of students as a group as well as the subsets of students with high absenteeism were compared by non-independent samples t-tests. .

## Chapter 4

## Results

This study examines whether building personal relationships with students through positive social conversations and individual conversations after absences can improve students' attendance within high school chemistry classes. This study utilizes a pre-experimental one group pre-test/post-test design with a convenience sample of the researcher's students. There was some variation in the independent variable for the different hypotheses. For all hypotheses, one independent variable was whether the intervention of positive social conversations and individual conversations after absences were in place. For the second null hypothesis, an additional component of the independent variable was whether there were targeted individual conversations. For the third hypothesis, in addition to positive social conversations and individual conversations after absences, a component of the independent variable was whether there were secondary individual conversations. The dependent variable was classroom attendance. The attendance of individual students during a baseline of 10 class periods was compared to attendance during an intervention phase of 10 class periods.

For the first null hypothesis involving all subjects, there was no significant difference in number of days present out of 10 during the baseline $($ Mean $=9.10, \mathrm{SD}=1.22)$ and intervention $($ Mean $=8.99, S D=1.57)$ periods $[t(83)=.67, p=.50]$, Please see Table 1. Consequently, the null hypothesis that high school chemistry students would not have significant difference in class attendance between the baseline and the intervention period during which the teacher built personal relationships with students through positive social conversations and individual conversations after absences was retained. For the second hypothesis involving students with ongoing high absenteeism, there was no significant difference in number of days present out of

10 during the baseline $($ Mean $=6.63, \mathrm{SD}=1.06)$ and intervention $($ Mean $=6.13, \mathrm{SD}=2.75)$ periods $[\mathrm{t}(7)=.45, \mathrm{p}=.67]$. Consequently, the null hypothesis that for a subset of students with ongoing chronic high absenteeism, there will be no significant difference in class attendance between the baseline and intervention period during which they had positive social conversations, individual conversations after absences, and targeted individual conversations was retained. For the third null hypothesis involving students with recent or past high absenteeism, there was no significant difference in number of days present out of 10 during the baseline $($ Mean $=8.2, S D=1.26)$ and intervention $(\operatorname{Mean}=8.73, S D=1.44)$ periods $[\mathrm{t}(14)=1.05, \mathrm{p}=$ .31]. Consequently, the third null hypothesis for a subset of students with only past high absenteeism or only recent high absenteeism would have no significant difference in class attendance between the baseline and intervention period during which they had positive social conversations, individual conversations after absences, and secondary individual conversations was retained.

Table 1.
Means, Standard Deviations, and t-statistic for 10 Day Attendance for All Subjects

| Condition | Mean | SD | t-statistic |
| :---: | :---: | :---: | :---: |
| Baseline | 9.10 | 1.22 | $.50(\mathrm{NS})$ |
| Intervention | 8.99 | 1.57 |  |

$\mathrm{N}=84$
$\mathrm{NS}=$ non-significant at $\mathrm{p} \leq .05$

Table 2.
Means, Standard Deviations, and t-statistic for 10 Day Attendance for Chronic High
Absenteeism Group

| Condition | Mean | SD | t-statistic |
| :---: | :---: | :---: | :---: |
| Baseline | 6.63 | 1.06 | $.67(\mathrm{NS})$ |
| Intervention | 6.13 | 2.75 |  |

$\mathrm{N}=8$
$\mathrm{NS}=$ non-significant at $\mathrm{p} \leq .05$
Table 3.
Means, Standard Deviations, and t-statistic for 10 Day Attendance for Recent or Past High Absenteeism Group

| Condition | Mean | SD | t-statistic |
| :---: | :---: | :---: | :---: |
| Baseline | 8.2 | 1.26 | $.31(\mathrm{NS})$ |
| Intervention | 8.73 | 1.44 |  |

$\mathrm{N}=15$
$\mathrm{NS}=$ non-significant at $\mathrm{p} \leq .05$

## CHAPTER V

## DISCUSSION

This study examines if building personal relationships with students through positive social conversations and individual conversations after absences can improve students' attendance within high school chemistry classes. There was some variation in the independent variable for the different hypotheses. All subjects received the intervention of positive social conversations and individual conversations after absences were in place. The group of students with chronic high absenteeism also had targeted individual conversations in addition to what all students received. The group of students with recent high absenteeism or past high absenteeism, had secondary individual conversations in addition to what all students received. The dependent variable was classroom attendance. The attendance of individual students during a baseline of 10 class periods was compared to attendance during an intervention phase of 10 class periods. There were no statistically significant differences in attendance between the baseline period or the social intervention period under any condition; consequently, all three null hypothesizes were retained

## Implications of your results

This study has numerous practical implications. For one, some students are in challenging situations that are out of their control and make it very difficult to attend school. Even with significant effort, sometimes teachers cannot improve every student's attendance due to the student's unique situation. During this study, one chronically high absent student went from six absences during the baseline data to five absences during the intervention period. The researcher met with the parent during parent teacher conferences and found out there was a legitimate family responsibility that caused the student to miss school. This is not an issue that a
teacher can assist with. The researcher tried to assist the student with making up work, but the student felt like he was so far behind that there was not a point in learning the material and preferred to copy work from other students or give up and fail portions of the course. Targeted individual conversations sometimes would temporarily motivate the student to communicate concerns with the teacher and attempt to learn the material, but as soon as the student had trouble learning material the student would check out and attempt to copy from students again. It is evident that to help some students improve attendance, changes need to be made at the societal level.

Although the study did not indicate that the social intervention significantly improves attendance, observational data suggests that it can improve engagement when students are present. One chronic high absent student in this study did not improve his attendance (six absences during the baseline data and intervention period). Nevertheless, the intervention appeared to have had an impact on his on-class behavior. This student was disengaged from the class during the baseline data period and rarely asked questions or completed his work. After the student's first individual conversation with the teacher after an absence, during the intervention period, this student began to ask clarifying questions daily (during class work on an individual level when present). When the student was present, he would complete and submit his work and occasionally complete make up work. While present the student went from a quiet, disengaged seemingly uninterested student to a student that was eager to learn and catch up on material lost due to his absences. The cause of this student's absences was never communicated with the researcher.

The intervention was not found to be effective at a statistically significant level for any of the conditions. In looking at the data at the individual level, it is evident that the intervention
may have positively impacted some students. Of the eight students with chronic high absent problems three students' attendance improved, three students' attendance worsened, and two students' attendance had no change. Of the 15 students with a history or recent high absenteeism, 10 students' attendance improved, one student's attendance did not change, and four students' attendance worsened. As stated previously, observations indicated that some students' attitude and approach to education changed throughout this intervention. Other students did not appear to be impacted by this intervention and their attendance did not significantly change. A qualitative review of the data suggests that building relationships with students who chose not to attend school can improve their attendance. Students who have things going on outside school, out of their control, are in more complex situations and require more complex solutions in order to improve their attendance. In terms of the specific groups within this study building relationships was most effective with students who had recent or history of chronic absences, but overall had good attendance for the entire period being analyzed. Many of the students became much more engaged in their work much quicker after having a private conversation with the teacher after an absence. Many of the students who had a recent high absence appreciated extra assistance and their attitude towards the class changed after having individual conversations with the teacher. Some students temporarily became more engaged with the teacher after having individual conversations but lost the engagement and became a bigger disruption to the class once they realized the researcher would not allow them to copy assignments from other students or give the students answers.

Another implication of this study is that social interventions alone are not sufficient to change attendance significantly for all students. Not all policies and strategies will work with everyone and a variety of strategies should be implemented. Since this strategy appears to work
with some students, educators and administrators should make sure to try and have more frequent targeted, positive conversations with students to make sure every student felt valued and determine how they can support their student.

Although there is a benefit to educators and administrators getting to know their students, the frequency of the social interactions should be less frequent or more natural than they were in the current study. The intervention as implemented would not be sustainable for a long period, particularly considering the lack of significant findings. This researcher realized very quickly how exhausting it is to attempt to have individual conversations with every student who is absent and regular targeted individual conversations with students with low attendance. This study was conducted in only three out of six of the educators' classes, but by halfway through the third week, the educator had trouble finding genuine motivation to have individual conversations with students (other than the fact of completing authentic research). The researcher found it frustrating that individual conversations were not enough to motivate some students to catch up on missing work or attempt to learn something new. Some of the students would voice an interest to learn or try harder, but their engagement, actions, and work completion would not demonstrate this desire. Some students also did not have a desire to have an individual conversation with the teacher and would rather work independently. Having individual conversations with over five students after a class had low attendance the previous class was also frustrating and exhausting. There were also times when the educator felt like he was putting forth significantly more work to motivate and engage the student in the content, when the students did not reciprocate that motivation or effort, it was disheartening. In the future the researcher hopes to have more targeted individual conversations with students, but at a more reasonable frequency.

This study demonstrated the difficulty for teachers of balancing personal health and
personal time management versus the needs of the student body and individual students. There is only so much time and energy a teacher can put into each individual student within a classroom without burning out or taking away from the learning of the entire class.

## Theoretical Consequences

This study did not provide quantitative data to support the idea that school climate and student teacher relationships are important to student attendance, but there were qualitative observations supporting this theory. Several students became more engaged and interested in school and attendance improved after individual conversations, but overall there was not significant data supporting this theory in this study. There have been multiple studies that have referenced the importance of school environment and connection of students to their school and teacher on student attendance (Brenner, 2011; Malloy et al. 2018). One thing that is important for students to be motivated to attend school is to feel a sense of belonging to their classroom and school and accepted for who they are.

In looking at the attendance of students at the individual level, it is evident that the same strategy will not work on all students in order to improve their attendance. Malloy et al. (2018) discussed the importance of having layers of intervention based on the severity of the problem and different students requiring more support than others. Two of the students with chronic high absenteeism in this study displayed the need for increased interventions in different ways. One student acted out and gave up on learning material when enough support was not in place and when the student felt like catching up in the class was hopeless. Another student gave forth genuine effort while in class but did not complete of his make-up work and his grade reflected the number of absences. Both students would require more intensive interventions in order to be
successful. Malloy also discussed the necessity to track students' attendance and interventions over the course of the entire year in order to identify targeted students for intensive interventions. That was not possible for this study due to time restrictions. Kearney and Graczyk (2014) supported the need for more intensive strategies through discussing the lack of statistical improvement on attendance and lack of improvement of targeted students, but improvement of attendance by a number of the secondary targeted students (recent and past history of high absenteeism).

## Threats to the Validity

There were numerous limitations to the internal validity of the study that made it difficult to determine the extent to which it was impacting absences about which a student had a choice or to what extent the intervention was impacting maximal time spent in class. One limitation was that the reason or purpose of the absence was not tracked or noted. This means there were times when students were missing class time for standardized tests, illnesses, vacations, field trips, and award ceremonies (all of which are appropriate reasons to miss class). There was also no tracking on whether students missed $90 \%$ of a class versus the first five minutes of a class. If students missed more than ten minutes of a class, it can be hard to stay with the class and understand what is going on. This also means that a student marked perfect attendance for the study could miss more of a class by coming to school late every day versus a student who was marked absent one day but present for $100 \%$ of the other classes.

The duration of this study was also relatively short, which impacted internal validity. If a student had perfect attendance for first quarter but missed two of ten classes during the baseline period or was sick for an entire week during the second quarter, they would be flagged for high absences. This means not all the targeted or secondary students necessarily had an attendance
issue, they may have just been sick and subsequently missed significant time during the second quarter or beginning of the second quarter.

Another internal validity concern was the historical threat that is particularly problematic when there is no control group. This year the flu was particularly bad, which caused many students to leave school early and attendance to slightly drop in February. The entire school had a daily attendance rate of $91.02 \%$ in January (primary period of baseline data) and $90.30 \%$ in February (primary period of intervention data). This difference is not large at the school wide level; however, some individual students may have been impacted.

One limitation to the external validity of the study was the timing of the study. Since this intervention was started in the middle of the year instead of the beginning of the year it made some students uncomfortable and uninterested in individual conversations with the teacher. This intervention may have been more successful towards the beginning of the year prior to students already generating their opinion and perspective of the educator and course and before students had developed their attendance habit. Results cannot be generalized to what may have occurred if the intervention took place at the beginning of the year.

## Connections to Previous Studies/Existing Literature

One study conducted in Chicago had many of the same concerns about attendance and the challenges of conducting research about attendance (Allensworth \& Easton, 2007). The research discussed the challenges of separating the reasons for being absent such as illness, vacation, and family issues. This study also discussed the challenge of improving attendance of schools with students with different backgrounds and experiences. According to this article, students from low income backgrounds and in schools with larger percentage of under achieving students have lower attendance rates. The current study was conducted in a low-income school with high-
achieving students from around the county all coming to a specific high achievement program, within a low-income and diverse school. Many students have trouble adjusting to the highachieving program and end up dropping out and underachieve academically even after they drop out of the program. There is a strong correlation with poor attendance and low-income households, which can predict poor academic achievement. The study in Chicago did show a correlation with teacher-student trust and attendance and the article encouraged teachers building strong relationships with students and their parents. Unfortunately, the results of the current study were not consistent with the study conducted by Allensworth and Easton (2007) in demonstrating that building relationships between students and teachers in a low-income school significantly improves attendance at the group level.

## Implications for Future Research

More research needs to be done with the specific goal of increasing attendance. Most of the studies utilized for comparison and research prior to conducting this investigation discussed attendance as an impact or result of an intervention and not the target of the intervention. It would also be interesting to see a research study that also looked for an association between attendance and engagement. Based on qualitative observations there was an increase in engagement with greater attendance and greater effort by the teacher to engage students. In order to see if there was a significant relationship between engagement and attendance specific quantitative data would need to be recorded and analyzed to see if the interventions implemented improved both attendance and engagement.

Many studies and articles focused on the difficulty of improving attendance due to the number of unique situations from which every student is coming. Conducting a tiered research study on attendance may be an interesting way to try a variety of interventions with the same
population and determine whether different students respond differently to interventions. If individual conversations were ineffective in improving a specific student's attendance over a specific number of classes, the researcher could introduce a new more intense intervention. Written explanation of being absent or assigned coach class were strategies mentioned in the research prior to conducting the investigation.

Conducting a similar research study during the beginning of the year for a larger portion of time could provide more valid results. Using 15 or more class periods would prevent students being targeted that were absent for a week due to illness. Conducting the study at the beginning of the year would allow a smoother transition from the baseline to intervention period for the students and educator. Alternatively, the intervention could start at the beginning of the school year but instead of having one group with a baseline and an intervention period, there could be an experimental and control group.

While analyzing the classroom attendance this researcher wanted to compare the data to daily school attendance, but realized it was impossible to access daily attendance for the entire school for previous school days. It would be interesting to track daily school attendance while also tracking classroom attendance in order to compare trends in attendance increasing and dropping within the classroom to the entire school. By working with the attendance secretary of the school or company in charge of the computer program responsible for the school's attendance a researcher could record daily attendance for the entire school throughout the entire study period for comparison with the classroom attendance during the study. This could help validate the extent to which changes in attendance in the classroom were due to the intervention rather than to factors impacting the whole school.

## Conclusions/Summary

In this study, building personal relationships with students through positive social conversations and individual conversations after absences was not found to significantly improve students' attendance within high school chemistry classes. All three null hypothesizes were retained due to no significant difference in the number of days present during the ten-day baseline period versus the ten-day intervention period. Observational data suggested that it increased the engagement of some students. It is evident that more targeted and lengthy research is needed on improving student attendance. There is insufficient research available specifically on improving student classroom attendance, and this study was too short and with too many limitations to make any strong recommendations from the findings. Specifically, more research needs to be conducted on if teachers building relationships with students improves students' attendance.

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