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## What is Truly Best for Students for Them to Succeed in High School Classrooms Today

Matthew Ortt  
mdortt@gmail.com

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**What is Truly Best for Students for Them to Succeed in High School Classrooms Today**

Matthew D. Ortt

College of Education, Concordia University, St. Paul

Master of Arts in Education – Educational Leadership

EDL 590 Research & Completing the Capstone Cohort 387

Dr. Brian Boothe

Second Reader: Dr. Danielle Thompson

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### **Dedication**

To my son, Nathan. You are my inspiration. You've been through more in your first three years of life than I care to endure for the rest of mine. You are why I'm doing this. Work will always be there, but I hold dear the time I spend with you the most. I love you, buddy.

To my bride, Krystal. You are the rock of this marriage, the glue of our family, and the one I can't live without. Your unwavering love and support have gotten me through this Master's program and it was truly not possible without you. I love you.

To my Mom and Dad. You have been there for me through the best and worst of times. You applaud my achievements and shake your head at poor decisions. I've learned so much from your love and wisdom. After all, I wouldn't be in education if it wasn't for you. I love you both.

To my Grandma, Barbara Ortt. I hope you're just as proud of me today as you were when I started this crazy journey. You've taught me that anything is possible if you put in the hard work.

I will miss you every day, forget you never, and love you always.

R.I.P. 4/20/44 - 10/1/24

To my classmates. To quote Augustus McRae, "It's been quite a party, ain't it?" I am so blessed to have met you all on this journey. We laughed, discussed, and helped each other. We broke barriers, had great conversations, and learned so much about ourselves along the way. I will never forget this wonderful group. Thank you, Annie, Ari, Casey, Elliott, Madeline & Sydney.

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### **Abstract**

This paper examined research studies that explored what is truly best for student success in the field of education. This topic aimed to determine the best way to teach students or ensure they reach their full potential through research findings from various qualitative, quantitative, and mixed-method studies. These studies examined the areas of school start times and student's daily schedules, academic structure and how classes are being offered, student mental health, and the use of technology in the classroom. The research showed a plethora of ways that could help students succeed and gave great insights into data that may already be known. It suggested positive steps that could be taken to provide best practices for high school students. However, research also demonstrated that even when steps are put in place to improve the learning experience the outcome is not always as planned, and the result may not come to fruition. Educational leaders have taken steps to provide the best education to their students both while in the classroom as well as prepare them for the future. Yet going forward, these same leaders will have to continue to adapt schedules, start times, and class options for students as well as focus on the mental health of their kids all while monitoring the use of technology in the classroom.

*Keywords.* academic structure, educational leader(s), mental health, best practice

## What is Truly Best for Students for Them to Succeed in High School Classrooms Today

### **Chapter One: Introduction**

Think about what your classroom looked like just five years ago. A room full of students eager to learn, lesson plans you put heart and thought into, and school days that rolled on like they always had. Little did you know that the following Spring would forever change how you look at students and the classroom for which you lead. A global pandemic was in full effect and the following year those very students would experience multiple learning models. Some in hybrid settings with Groups A and B going to school only certain days per week. Others were at home trying to fast-track how to learn solely online. Yet others still, were in the classroom listening to teachers in person, while some of their classmates were at home learning via a camera at the same time.

Now bring yourself back to your classroom today and what do you see? You might see students who according to Erik Erikson's Stages of Psychosocial Development, school-age kids ages six to eleven are supposed to have adjusted to academic and social demands and be confident in their ability to handle given tasks, yet some are not. Adolescent students ages twelve to eighteen should have developed a strong sense of self, and identity and embraced independence and responsibility, yet haven't. Or think about the senior class you taught a few years ago who are now young adults in college but weren't able to fully build lasting, meaningful relationships with friends, classmates, and most importantly you the teacher.

You see, these last five years have brought an interesting and diverse group of students through the educational system both primary and secondary schools. These students have more diverse needs than ever before yet despite what research tells us, some aspects are still set in their ways and instead of staying to what is old, tried, and true perhaps need to be updated, refreshed,

and looked at differently. Students today at all levels need to be met wherever they are academically, socially, and developmentally to create an equitable classroom experience for all. Through analyzing data and research this paper will help answer, “In light of what is known about pedagogy in the contemporary educational setting, how shall educators lead equitably and inclusively in order to positively impact student development and learning and what are the best ways that educators can meet the variety of needs of a diverse high school student body during the school day in order to positively impact student development and learning?”

### **Importance of the Topic**

Ensuring every student reaches their full potential is why educators are in the profession. On the heels of a global pandemic, high school classrooms are diverse with needs now more than ever. We see students struggling to crawl out of the rut exposed, not dug, by distance learning models. There are kids with mental health issues that aren’t new but finally being recognized and treated. High school classrooms are also filled with kids who are re-learning how to socialize once again, get used to being around others, and succeed at an accelerated rate. The importance and drive to help these students who will lead our future is perhaps higher now than ever because these issues are not going away. Adolescents between the ages of 13 and 18 should sleep 8 to 10 hours per day. (Weir, 2023). Few are logging those hours. Between 2009 and 2021, the percentage of high school students who did not get enough sleep increased from 69% to 77%. (Weir, 2023). In 2021, nearly 70% of 9<sup>th</sup> graders, and 83.5% of 12<sup>th</sup> graders, failed to get enough sleep (Weir, 2023). The teen brain has an amazing ability to adapt and respond to new experiences and situations (National Institute of Mental Health n.d.). Taking challenging classes, exercising, and engaging in creative activities like art or music can strengthen brain circuits and help the brain mature. (National Institute of Mental Health n.d.) Yet knowing these obstacles

exist, there are challenges in the way. Today, 72% of high school teachers are likely to say that cell phones are a distraction and getting in the way of their students' learning (Hatfield, 2024). Fortunately, educators strive to solve problems like these every day. With every issue, there is a solution. If students are tired, push back high school start times. If challenging the young mind is proven to help it grow, challenge students with the proper support to help their brains thrive. And if technology has become a brick wall that educators run into daily, perhaps it's time to take it out of the classroom as well. The following research analysis explores solutions to three big areas of study: student mental health, academic schedules, and the use of technology in the high school classroom. The research looks at options that if proper steps are taken may improve the educational outcome and overall development of our students in today's society.

### **Scope of Research**

This research study examines qualitative, quantitative, and mixed-methods studies to help understand what are the best ways that educators can meet the variety of needs of a diverse high school student body during the school day in order to positively impact student development and learning. The following literature review will investigate research that examined situations that may benefit high school students in reaching their full academic potential. It explores strategies and steps that can be taken to promote best practices to help all students succeed in today's diverse classroom settings. The literature review follows four themes from the research studies addressing technology in the classroom, school start times, schedule and structure, and overall mental health. The first theme addresses when schools start and will give insight into how beneficial a later school day may be for high school students. The second theme explores the academic structure and the impact of how the school year is set up especially comparing trimesters to semesters. The third theme dives into the fragile topic of student mental health,



especially on the back of the Covid-19 pandemic. Finally, the last theme of research connects the use of technology in the classroom to its effects on students in school. The focus was secondary schools throughout the United States, with a few outside examples as well, especially in the modern classroom environment post-Covid-19 Pandemic. Early childhood programs and elementary-level schools were excluded from the research study as they did not apply to the high school or post-secondary level of education. Collectively, this information will provide insight into what educational leaders could do to structure the academic experience to maximize learning for all students.

### **Research Question**

In light of what is known about pedagogy in the contemporary educational setting, how shall educators lead equitably and inclusively in order to positively impact student development and learning and what are the best ways that educators can meet the variety of needs of a diverse high school student body during the school day in order to positively impact student development and learning? This research directly addressed the need to meet students today where they are in their academic journey. The research aimed to do just that by exploring how to truly meet students where they are to ensure they are experiencing the strategies in which they learn best, especially in the areas of student mental health, the structure of their academic schedules, and the impact of technology in the classroom. These issues directly relate to creating an equitable and inclusive experience for all high school students and the solutions in research strive to positively impact student's learning experience and maximize their development.

### **Definition of Terms**

***Mental Health*** is defined as a person's emotional, psychological, and social well-being (National Institute of Mental Health n.d.).

*Adolescent* any student ages 13-18 currently in a high school setting (Weir, 2023).

*Hybrid learning* is also known as blended learning and attempts to combine online and in-person instruction, usually at different points in time (Castañón et al., 2023)

## **Summary**

Education brings its share of challenges into the classroom each day. Teachers and educational leaders strive to conquer those challenges by finding solutions. The following research takes steps toward improving the experience, development, and success of all students in high school classrooms across the country through efforts like removing cell phones and limiting the use of technology, starting the school day later in the morning, and ensuring that the mental health of all is addressed for all students to learn in the way that best suits them. The following literature review seeks to bring solutions that will ensure student success when they need it most, assist in the development of the young mind, and explore changes in education that will positively impact students in a high school setting today.

## **Chapter Two: Literature Review**

In high school education, the educator's job is to serve the children of our future and do it however they know best. In the same breath, how is anyone to know the best way to serve their students? There is no manual to read, no set way to teach any particular lesson, and building relationships with kids is an art that can take years to master. This paper will look at key aspects that are coming to light and may help bridge that gap for success. The first is the issue of when school actually starts. The second is academic structure and how classes are being offered to students. The third theme explores the current state of student's mental health and its root causes as well as how it impacts kids. The final theme of research addresses the use and utilization of technology in the classroom.

The first theme incorporated four studies by Peltz et. al. (2022), Temkin et al. (2018), Fuller et. al., (2024), and Marzano Research (2020). These studies researched how simply moving the time that school starts for high schoolers to later in the morning could greatly benefit them physically, emotionally, and academically. They repeatedly showed positive emotional outcomes for students and reported decreased tiredness while in class.

The second theme involved four studies from Showell et. al (2019), Bair et. al. (2010), Castañon et. al. (2023), and Akinde, (2022). This theme used research that analyzed how the structure of a school year and a student's schedule can impact them. They look at semesters versus trimester schedules, PSEO options for high schoolers, length of classes, school days and flexible scheduling, all as options for what is truly the best structure for students.

The third theme that was discovered involved studies from Johnson et. al (2024), Stankovska et al. (2023), Papa (2018), and Johnson et al. (2023). These research studies dove into an issue that isn't new to education but rather is being brought to light, and that is mental

health. These studies sought to understand the impact of stressors students experience especially in the wake of the Covid-19 pandemic and how educational leaders can provide the resources necessary to help all of their students. These studies also came to the reality that educators may not be trained nor fully equipped to address mental health in the capacity that is needed today.

The final theme incorporates research from the Institute of Education Sciences (2019), Gajdics et. al. (2021), Morris et. al. (2020), and Fernandez, (2018). These studies provide insights into the effort and outcomes of trying to patrol technology use by students in the classroom. These studies presented perspectives of both instructors and students yet gave very different conclusions when comparing limiting and harnessing cell phone use in school. Studies found that instructors and students alike agree that there need to be purposeful restrictions on cell phones in school but both the benefits could also be embraced when utilized appropriately.

### **School Start Times and Daily Schedules**

A qualitative study conducted by Peltz et. al. (2022) looked at the consequences of later school start times on adolescent students. The authors wanted to examine the differences, if any, across adolescents from families in different socioeconomic status levels and whether or not there was a connection between depressive symptoms in those students. 193 total participants were studied which included both students and parents. However, they reported different information. Adolescents reported depressive symptoms, sleep quality & duration, chronotype, and demographic covariates while parents only reported school start times (SST) and socioeconomic status. Adolescents had to be between 14-17 years old and averaged 15.7 years of age (Peltz et. al., 2022) while parents averaged 47.6 years old (Peltz et. al., 2022). This study wanted to find a connection between school start times and student's well-being.

Surveys were given and parents provided their child's school start time on a baseline while the adolescents were asked to report their depressive feelings and track their sleep duration for a 7-day period. It is also worth noting that the adolescents were given compensation of \$15 to keep the sleep log while parents were given \$10 for completing the survey as well and each survey took roughly 20-25 minutes to complete. The results found that adolescents reported an average of 8.2 hours of sleep per night (Peltz et. al., 2022) with an average SST of 7:56 AM with only 11% of respondents starting at or after 8:30 AM. (Peltz et. al., 2022). 17% of adolescents reported above the clinical cut-off score of 10 on the PHQ-9 which indicates the possible diagnosis for depression (Peltz et. al., 2022). 16% of parents reported being about the group's average socioeconomic status (SES) of \$82,000 per year (Peltz et. al., 2022). The conclusion suggests that only adolescents from families with higher SES saw a significant association between SST and their depressive symptoms. For this group specifically, later SST were associated with lower depressive symptoms and suggests that later school start times may disproportionately provide benefits to students from families with higher SES.

There were several limitations to this study. The first was that parents were targets and only approached if they provided an email address for their adolescents in the baseline survey. Another is that the measures were all self-reported which may cause response bias. A third limitation was the cross-sectional data. The final limitation was the lack of diverse responders as the sample identified predominantly as white and well-educated giving only a limited sample size.

Another qualitative study conducted by Temkin et al. (2018) assessed the relationship between school start times and sleep in middle school students. It wanted to see if there was an association between delayed school start times and improved academic achievement, overall

well-being, suicidality, and finally decreased motor vehicle accidents. The study was conducted in the Spring of 2014-2015 and included seventh and eighth-grade students from 8 middle schools serving only seventh and eighth-grade students, and 3 secondary schools serving 7<sup>th</sup> to 12<sup>th</sup> graders. The 8 middle schools reported an average start time of 8:00 AM while the secondary schools had an average of 7:23 AM start time. (Temkin et al., 2018). In this study, school start times were reported from administrative records, and found that, on average, the middle schools started 37 minutes later than secondary schools. (Temkin et al., 2018). Using the *School Sleep Habits Survey*, students reported their school-night bedtime, weekend bedtime, school-day wake time, and weekend wake time in 15-minute increments. (:00, :15, :30, :45) Students then reported on their *Daytime Sleepiness* when asked if they had struggled to stay awake or fallen asleep while engaging in activities during the previous 2 weeks on a scale of: 0, never; 1, struggled to stay awake; 2, fell asleep. The results were eye-opening and found that students at early starting averaged 8 hours and 9 minutes of sleep per night compared to 8 hours and 23 minutes for the later starting schools, an increase of 13 minutes per night. (Temkin et al., 2018). Students of later starting schools also reported feeling less sleepy during the day and were more likely to report feeling wide awake. When accounting for differences in demographics, the study found that attending a school that starts an average of 37 minutes later was associated with getting 17 more minutes of sleep per school night despite going to bed an average of 15 minutes later. (Temkin et al., 2018). It concluded that students at later starting schools wake up approximately 32 minutes later. (Temkin et al., 2018). Finally, the study found that later school start times meant students averaged an extra hour and 15 minutes of sleep per week, totaling 51 hours of sleep per year. (Temkin et al., 2018). Keeping in mind the limitations of self-recorded information, the truth and accuracy need to be accounted for. Variables like having older

siblings, routines or drop-off times need to be considered going forward. Both studies also connect to one another by addressing high school students in both research groups.

Ultimately, students who attended later starting school were less sleepy and more likely to be wide awake during the day. They reported fewer depressive feelings, suicidal thoughts anxiety, and were in a healthier state of mind. Both studies connect the importance of our younger students starting later in the morning. Both found significant benefits for students and suggested that reforming school start times would positively impact not only high schoolers but middle school students as well. These studies connect and found similar results although Temkin et al. (2018) did bring Middle School students into the study from eight buildings and the research and findings can be applied to high school students.

The next quantitative study was completed by Fuller et. al., (2024). It was a longitudinal study that analyzed data provided by the North Carolina Department of Public Instruction (NCDPI) and used high school student information from the 2012-2013 to 2018-2019 school years. The data used included student demographics, absences, suspensions, course grades, and standardized test scores. The study also considered factors like school-level demographics, enrollment, and expenditures. The sample was restricted to urban districts between the 2012-2013 and 2018-2019 academic years and group size was taken from nine different high schools in Partner District with start times changing from 7:30 am to 9:00 am, a 90-minute delay across all schools. Its goal was to find out if there were improvements or changes in the listed behaviors and academic outcomes when schools pushed their start times back 90 minutes. Two comparison districts were also used, which kept the start time at the original 7:30 am. The results were gathered after students reported the time they went to bed as well as when they woke up. Students in Partner District reported that they went to sleep .307 hrs. (approximately 18 mins.)

later than students in the comparison district yet woke up 1.075 hrs. (approximately 65 mins.) later on school days. (Fuller et. al., 2024) In turn, high schoolers in Partner District reported getting an average of .768 hrs. or approximately 46 mins. of more sleep per night. (Fuller et. al., 2024) In looking at the comparison district, Partner District students reported a total average sleep time of 7.93 hrs. while the comparison district was only 7.19 hrs. (Fuller et. al., 2024) This is marginally closer to the 8-10 hours that adolescents are suggested to be getting.

The study then compared sleep times to the other aspects of data. In regards to absences, there was little change. There was no significant change in chronic absences, they only decreased slowly and absences in a two-week period temporarily increased. This suggests attendance does not seem to be greatly impacted just because schools have a later start time. Suspensions increased in the treatment schools by nearly 5 percentage points relative to the schools in North Carolina that still had a start time of 7:30 am (Fuller et. al., 2024). The suspension rate did decrease by the third year of implementation and returned to the previous levels prior to the change in start time (Fuller et. al., 2024). Grades were quite the opposite. Both academic course grades and course grades in just the first period saw an immediate increase of one-tenth on a four-point scale. In treatment schools that implemented a later start time, grades were no longer decreasing over time and may even be increasing especially in first period. (Fuller et. al., 2024) The study also recognized that the positive increase in student grades due to a later start time was less for students of color than their White counterparts (Fuller et. al., 2024). The study found mixed results, some positive, some negative, and others with minimal changes. This may be due to the limitations. Partner District only has a small number of schools to sample which didn't give a large sample size. The results and data provided was less positive than expected but did reinforce the benefits of students getting an increased amount of sleep. Pushing back the start



time from 7:30 to 9:00 am found a positive effect on time asleep, possible suspensions, and overall grades.

Outside of moving the start of the school day, some districts have incorporated flex time into their students' day as an alternative to help kids succeed. The Institute of Educational Sciences organized the next study administered by Marzano Research (2020). It questioned what students would do if they were given flexible time in their schedule. If students were given a choice instead of told exactly how to spend some free time in their academic day, how would they utilize it? The study was set up with the help of the North Dakota Department of Public Instruction, partnering with Bismarck Public Schools with Legacy High School in Bismarck being the school of focus. Legacy High School put what it calls a "flexible mod" schedule where students are free to choose how they use a portion of their school day. For the study, Legacy HS also provided content-specific learning centers in place where kids could receive academic help or engage in enrichment activities outside of class. Students were to use their flex time to complete assignments, receive assistance in the learning centers, or relax with friends. Students who were struggling academically, however, could have some of their flex time determined by a teacher to help the student. Data was collected throughout the 2018-2019 school year and tried to figure out if the utilization of flex time differed by grade level or academic achievement level.

The size and sample are as follows. Students kept a time log for five, one-week periods with a total of 568 students registered in the select classes (Marzano, 2020). Of those, 495 students (87%) completed at least one time log which was about 45% of Legacy's student population (Marzano, 2020). The statistics showed that 86% of students who participated were White/non-Hispanic, 55% were male, and 17% were eligible for the national school lunch program (Marzano, 2020). Approximately 4% were classified as receiving special education

services and 1% were identified as English learners (Marzano, 2020). The findings were that when given 80 minutes of flex time per day, students chose to use most of it for non-academic pursuits. The study also found that the amount of flex time increased with grade level and that 97% of the time students determined how to utilize their flex time to only 3% of the time when teachers determined it instead. (Marzano, 2020). Results also showed that students used the largest percentage of student-determined flex time to focus on math, 21%, and science, 18% (Marzano, 2020). Findings showed that of the 3% of kids that had their flex time determined by teachers for academic help, that only accounted for 61 total students (Marzano, 2020). When looking at other student demographics, female students used more of their flex time for academics than male students. Female students used 21% of their flex time for academic purposes while only 17% of male students did the same (Marzano, 2020). When it comes to students struggling in math or science among other academic subjects, they had much more of their flex time determined by teachers. Yet the study found that students struggling in both math and reading chose to use significantly less of their self-determined academic-focused flex time for actual coursework outside of the learning centers at 47% (Marzano, 2020). In contrast, students excelling in at least one of those subjects used 70% of their time, and students excelling in both subject areas used 89% of their independent time to complete schoolwork (Marzano, 2020). The study found that although the idea of giving students more time built into their day for academics and independence, only 19% of their total flex time was being used for academic activities (Marzano, 2020). This suggests that perhaps students would indeed utilize the schedule model, but need more support and structure to their personalized learning. One big limitation of the study was that student academic achievement was based on test scores from the previous year which meant that the correlation was not necessarily reflective of the current academic

achievement (Marzano, 2020). This was a good start to perhaps implementing a more independent and flexible option for high school students but needs more structure before the concept can reach its intended results.

These first research studies above, echo one another when the results showed how simply changing the daily schedule and delaying school start times can positively impact students. Results repeatedly showed such benefits as higher alertness, participation and increased readiness to learn. Studies also showed that students were less tired, increased their positive mental health and allowed time for kids to choose what they did with a small portion of their schedule. Results can be applied at both the middle and high school levels. The next set of studies builds upon this idea and looks at additional ways to alter small aspects of the school structure that can greatly impact students.

### **Academic Structure & Classes Offered**

In the previous theme, the school day schedule was somehow altered. Most studies supported starting the school day later in the morning which brought about positive change for most students in the areas of depression, academic success, and less tiredness overall during the day. The next research studies instead explore the effects of the academic calendar, the true structure of the school year, and how courses are being offered as well as the impacts on the students.

The first is a qualitative study conducted by Showell et. al (2019) and the researchers explored the impact of moving from a semester schedule to a trimester schedule. The goal was not to evaluate the schedule itself but rather to gain knowledge of the teachers' perceptions of the change in structure. The structure of change was to transition from a seven-period-per-day schedule over two semesters to a five-period-per-day class schedule throughout three trimesters.

The areas of focus where the researchers wanted teacher feedback on the experience included campus culture, tutoring, and remediation of students (Showell et. al., 2019). The design looked at a campus where the schedule changed to the trimester schedule for the 2015-2015 and 2015-2016 school years, then transitioned back to its semester format for the 2016-2017 school year. After giving teachers time to collaborate and get used to trimester schedules, then interviews were conducted to get the feedback and perceived emotions. The study group consisted of only 11 educators and responses were collected during individual, face-to-face interviews. The group consisted of ten teachers and one associate principal and were all employed at a traditional high school in Texas. Each interview lasted between 60-90 minutes with memos being written after every third interview. The group of educators ranged in age from 30-49, with six of them between the ages of 30-39 and the other five were 40-49 years old. All study participants had a bachelor's degree, four were pursuing a master's degree and one had a master's but was pursuing their doctorate. Seven participants identified as African American, four identified their race as White. Seven participants were female, while four were male and their years of experience ranged from 5-26 years as an educator. None of these teachers had experience with a trimester schedule and the subjects being taught included math (4), social studies (2), career and technical education (2), science (1), and English (1).

The findings of the study yielded four themes that emerged. The first was that teachers did not feel prepared to teach at the pace required for a trimester schedule (Showell et. al., 2019). When comparing 50-minute classes for 18 weeks to 75-minute classes for only 12 weeks, the new schedule was designed to give teachers extra time throughout the day to prepare while leaving the amount of instruction time at 4,500 minutes (Showell et. al., 2019). However, teachers still expressed the need to plan their lessons differently under the new schedule. One

teacher, Pam, stated that “maximizing the time of instruction in the classroom” was the most difficult part (Showell et. al., 2019). Janet told researchers that her students reached a “saturation point” (Showell et. al., 2019). The second theme found in this study was that students who took ownership of their learning were academically successful on the trimester schedule. Janet, one of the ten teachers, told researchers that the faster pace forced students to become more mature and focused. Those who failed to mature simply fell behind. This did open the door for remediation opportunities. Participants acknowledged that the trimester schedule allowed them to receive remediation during the school day in classes in which they struggled (Showell et. al., 2019). Thirdly, almost all of the teachers perceived those trimesters hindered the development of relationships with students (Showell et. al., 2019). All of the teachers except Dwight shared in this perception. Teachers reported that there was not enough time to get to know the students or their motivations within a trimester. On the other side of the argument, Sophia expressed that she enjoyed the shorter terms in the case of bad behavior, she’d only have misbehaved kids for 12 weeks and not 18. The final theme was that staff felt a strong sense of teacher collaboration was present in both scheduling models. The participants did, however, perceive that collaboration suffered when did not have planning times. Without common planning periods, teachers had to meet before or after school which made it more difficult.

Limitations and findings were unique for this study. The sample size was only 11 educators and one of them was an administrator. Going forward, more educators from more schools would bring a larger sample size for feedback. In conclusion, the participants agreed that true opportunities for success were not dependent on the trimester schedule but rather, on the maturity of the student. Although the amount of time spent with students in both models was the same, participants felt rushed to cover material in the trimester schedule. Lastly, further research

could be conducted but more needs to be considered other than just teacher feedback and student success.

Another study that echoed the findings of Showell, was a qualitative study conducted by Bair et. al. (2010) which explored how trimester schedules negatively impacted students in math and science. Researchers recognized that many schools are switching from semester to trimester in order to keep up with increased high school graduation requirements. However, they wanted to see if that is really the best structure in order for kids to succeed today. Bair et. al. (2010), used Reform High School as their sample site, which is a large, comprehensive, and diverse high school located on the outskirts of a big city in the Midwestern United States. Reform school enrolled over 2,800 students at the time of the study with over 40% of students qualifying for free and reduced lunch (Bair et. al., 2010). Student demographics as of 2006 were 57% White, 28% Black, 7% Hispanic, and 7% Asian (Bair et. al., 2010). Researchers spent three years from 2006-2009 in the field collecting data from Reform High School as non-participant observers. The primary data source was semi-structured interviews with the assistant superintendent for curriculum, the district coordinator for math, the principal of the freshman campus, the principal of the 10-12 building, the assistant principal in charge of scheduling, two guidance counselors, and 22 math and science teachers (Bair et. al., 2010). Researchers observed 22 total classes in algebra 1, algebra 2, geometry, biology, chemistry, and physics.

Their findings were presented with two school-driven rationales. The first was that trimesters would help meet the increased demand of the high school rigor and the second is that school administrators expected many students to fail those new rigorous requirements, especially in algebra and chemistry (Bair et. al., 2010). Researchers did uncover issues relating to these changes. Increased content was the first. There was now more material to cover in a shorter

amount of time (Bair et. al., 2010) which directly echoes Showell's findings in the previous study. In turn, came the second issue, there was less time for actual instruction with students. In the semester schedule students had a total of 5,130 minutes of instructional time with 57-minute classes compared to only 4,260 minutes when in a 71-minute trimester class (Bair et. al., 2010). That adds up to a loss of 14.5 hours of instruction, or 870 minutes (Bair et. al., 2010). Others problems were that students seemed unprepared and unable to keep up to the faster pace. The calendar showed 12-weeks trimesters, but researchers observed that it is actually closer to 10 as the first week is used for getting to know the students and finals week is structured to exams (Bair et. al., 2010). The biggest issue perhaps was that the year was now paced too quickly without time for inquiry. Teachers had to simply keep moving forward. Researchers concluded that this hurt students even more who were already at risk of failing, yet enabled advanced students to keep moving ahead (Bair et. al., 2010). Widening the achievement gap is not what any teacher, educational leader, or school is out to do. Taking into account that the sample size was only at one school but indeed over three years, there may be more that could be looked at. However, if trimesters are not a better way to structure an academic year, perhaps more flexible hybrid schedules are.

The next mixed-methods study by Castañon et. al. (2023) examined just that. Researchers tried to understand the perceptions of teachers, parents, and students working in a school that used a hybrid learning model with individualized schedules. In this model, hybrid learning is where students combine online and in-person instruction (Castañon et. al. 2023). Both qualitative and quantitative data were collected simultaneously and analyzed independently, and all subjects attended Tierra Academy Charter School (TACS) and were between grades 5-12 (Castañon et.

al. 2023). TACS used a flexible weekly schedule that offered students the option of attending fully online to five days per week on campus.

Teachers, parents, and students were surveyed and interviewed at different points in the study. Invitations to participate in the interviews were sent out to all teachers in the building with five volunteering to be interviewed (four female and one male). Six students also volunteered, three boys in 5<sup>th</sup>, 9<sup>th</sup>, and 12<sup>th</sup> grade as well as three girls in 8<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> grade (Castañon et. al. 2023).

The study found that participants agreed that access to true instruction was the primary concern. Teachers, students, and families agreed that flexible schedules were crucial for success and were looked at as an opportunity and not a requirement. Participants also discussed the opportunity to collaborate on learning goals as this was a perceived positive (Castañon et. al. 2023). Per the survey, 52% of teachers, 31% of students, and 47% of parents agreed that students make their choice in topic of study (Castañon et. al. 2023). 90% of teachers, 75% of students, and 95% of parents also indicated that they believed TACS created a positive community climate. But would this positive environment lead to higher outcomes? 65% of educators, 58% of students, and 78% of parents thought so (Castañon et. al. 2023). To that end, 90% of teachers, 59% of students, and 80% of parents thought that teachers at TACS interacted regularly with students to support their learning (Castañon et. al. 2023). In conclusion, this study did collect feedback about different aspects of one hybrid schedule model. The limitations, however, need to be considered. The study took place in only one building already practicing a hybrid schedule and the sample surveyed was not particularly large. It consisted of only 21 teachers, 134 students, and 45 parents, much smaller than a more populous public school.



What if the structure of the school year or schedule itself wasn't what changed but instead the option for students? That is what the final quantitative study by Akinde, (2022) will try to answer by looking at student participation in post-secondary education options (PSEO). PSEO is a dual enrollment program for high school students to participate in throughout the United States. Students earn college-level credit and meet high school graduation requirements and in Minnesota, the PSEO program is available to students in 10<sup>th</sup> through 12<sup>th</sup> grade (Akinde 2022). Students also have the option to take these courses on a college campus or while they're in their high school building. This study wanted to see the persistence of students who enrolled in PSEO and continued to earn an advanced degree. The data set used was comprised of students who enrolled in PSEO between the years 2007 through 2019 (Akinde, 2022). That total was 2,125 students and of those, 4% of those students completed their undergraduate degree at the same institution (Akinde, 2022). Software was used to calculate the outcomes. Of the 2,125 PSEO students enrolled between 2007 and 2019, only 285 continued on to earn a graduate degree (Akinde, 2022). This study showed a few things worth mentioning. The first is that the sample size was large enough to be considered accurate. Yet if students are being challenged and earning college credit while completing high school requirements, an interesting question for future study would be why exactly more students do not seek advanced degrees. Perhaps getting ahead of the game while still in high school is good enough, but by pushing students to succeed while in high school, we know they can accomplish great things at any level of education.

The research presented above, emphasized what schedule and academic structure is best for students. It compared semester and trimester schedules, and their effects on both students and teachers, incorporated feedback to accompany the results, and finally, different options such as PSEO that could help challenge students to be their very best. Studies showed the benefits of

sticking with semester schedules but also the disparities that accelerated options exposed by allowing gifted students to continue to succeed yet made things that much harder for students who were struggling academically. The following research builds upon the impacts and negative responses in the above studies and tries to address student mental health and how to give educational leaders everything they need to combat it in recent years.

### **Student Mental Health**

Educators are becoming more aware than ever of student's mental health. The research below dives into student mental health and explores the emerging issues and impacts of the Covid-19 pandemic on the student population.

A quantitative study conducted by Stankovska et al. (2023) looked at the mental health of university students after the Covid-19 pandemic. The Kessler Psychological Distress Scale (K10) and the Psychological Well-Being Scale (PWBS) were given to 240 university students (129 female and 111 male students). The sample students were selected at random and participated voluntarily. Each student was between the ages of 19- and 23-years old averaging 21.73 years of age. However, this study did something unique, it only sampled students who studied medical sciences at the University of Tetova in their first or third year. The first-year students had only known university classes in-person while the third-year students started their classes during the Covid-19 pandemic in an online or hybrid setting and then continued in a physical setting. Students answered survey questions during the Winter semester of the 2022-2023 academic year and did so in a classroom setting and had only 30 minutes to answer the surveys. The K10 survey consisted of ten emotional items like: nervous, hopeless, worthless or depressed, and answered on a scale of 1 (None of the time) to 5 (All of the time). The PWBS scale had 42 items, each containing 7 closed answer choices from 1 (strongly disagree) to 7 (strongly agree). Based on the

results, the study found a positive correlation between mental health and psychological well-being. Good mental health leads to psychological well-being and/or psychological well-being will improve mental health (Stankovska et al., 2023). The study concluded that “students having good mental health are happier, sociable, and economically stable.” (Stankovska et al., 2023). Limitations exist in the study because the sample is not of all levels of the university and there are students older than 25 taking classes as well. It is suggested that further research be done to look at the factors that affect students’ mental health as well.

A qualitative study that looked at not only the mental health of students but also where & how they access help was conducted in the 2019-2020 academic year by Johnson et al. (2023) 259 students from one of the 50 largest public higher education institutions in the Southeastern United States responded to a questionnaire. No incentives were given but students had to be at least 18 years old and current university students. Most were between the ages of 18-26 with the demographic responses as White (47%), Black (26%), Hispanic/Latino (6%), Asian (3%), Pacific Islander (.4%), multi-racial (7%), and other (.4%) (Johnson et al., 2023). The questionnaire included five open-ended questions and two closed-ended questions relating to help-seeking behaviors like location, barriers, and recommendation. It also contained three closed-ended demographic questions. The results compared differences in male & female and age groups' responses and about issues involving mental health. 75% of respondents said they would personally offer support to friends and family members (Johnson et al., 2023). When seeking help for mental health (MH) issues, 49% of participants said they’d turn to family or friends while only 29% would turn to a MH professional. Across the board, respondents were least likely to go to family and friends (30%), medical professionals (14%), or seek help at school/work (15%) (Johnson et al., 2023). 47% of participants said they wanted to make

changes to themselves rather than the MH system (Johnson et al., 2023). But 25% also told researchers they wish they'd received help sooner. (Johnson et al., 2023). Given this information, the sample is limited to only one institution from only 259 students. Another limitation is that MH and the need for assistance don't stop at age 25, as the study did. Lastly is the nature of the questions given to students. They are not able to elaborate on answers or provide personalized responses to open-ended questions. Taking this information, the university where the study was completed now offers increased psychological services. However, it is not known if the respondents are utilizing those resources or not.

The final study has both quantitative and qualitative aspects to it and was conducted in the State of Connecticut by Papa (2018). This mixed-method study explored whether educational leaders are truly ready to support mental health in their buildings and whether or not they're ready for that exposure. The purpose of the study was to examine leadership competencies needed to meet the mental health conditions of students, the existence of mental health content in coursework, and field experiences in educational leadership programs within higher education institutions located in Connecticut. (Papa, 2018). Qualitative data was collected by conducting semi-structured interviews with five nationally renowned school MH experts and three Connecticut in-service principals at the elementary, middle, and high school levels. 11 professional leadership competency categories were suggested and then applied to a survey. 26 course syllabi from Connecticut's school leadership programs were examined and the researcher looked at the frequency of the 11 suggestions in each course. Professors then rated the extent in which their course addressed those 11 MH suggestions with 2 open-ended items and 12 survey items. The responses included: 1) content was significantly included in the coursework, 2) included but not significantly addressed or 3) not included. The results found that of the 48

professors, almost none felt their own course addressed the issue of MH. Of the professionals who were interviewed very few thought that MH was addressed in their program's preparation for the field of work. Of the twenty-six syllabi examined, only two included psychopathologies in their course content. (Papa, 2018). The researcher concluded that the study revealed a significant deficit in the amount of preparedness current school leaders have when addressing the mental health conditions of school-aged children and adolescents. (Papa, 2018). In turn, limiting the amount of help our students can receive while in school and a greater emphasis needs to be placed on their social and emotional well-being.

The final qualitative study was conducted by Johnson et. al (2024) and sought to understand the experiences of students who were in school during the 2020-2021 school year. Johnson recognized that there weren't a lot of studies between Spring of 2020 and Fall of 2020 so looking at the academic year would be important to understanding the impact of the pandemic through a full school year as schools now had time to adapt. In its set up, this study aimed to create a baseline for which future studies could compare more in-depth looks at how the pandemic impacted marginalized communities.

This study was part of a longitudinal project in partnership with the National Project on Achievement in Twins [NaPAT]. During the summer of 2021, a Covid-19-specific survey was mailed out to all NaPAT families and of the 1,782 families eligible, 833 responded which is 47% (Johnson et. al 2024). Of the final 833 families, 1,666 children were included in the sample with twin pairs ranging from kindergarten through 12<sup>th</sup> grade. (kindergarten  $N = 15$ , first grade  $N = 48$ , second grade  $N = 94$ , third grade  $N = 127$ , fourth grade  $N = 121$ , fifth grade  $N = 106$ , sixth grade  $N = 97$ , seventh grade  $N = 88$ , eighth grade  $N = 71$ , ninth grade  $N = 20$ , 10th grade  $N = 10$ , 11th grade  $N = 4$ , 12th grade  $N = 4$ ) (Johnson et. al 2024). Males and females made up exactly

50% of the sample and a majority reported as White, non-Hispanic (87%). Participant families ranged in annual household income from under \$10,000 to over \$150,000 but averaged \$90,000-99,000. (Johnson et. al 2024). Parents had educational levels ranging from under Grade 6 to having a graduate degree but averaged a 4-year college degree (Johnson et. al 2024). Lastly, students included were from 43 states in the geographical United States (Johnson et. al 2024). Families were given a \$50 gift card for completing the survey which consisted of questions regarding their child's: School Format, their own role in their child's education during the pandemic, Parent-Teacher Interactions, Schoolwork Struggles, Access to Technology and finally School Services (Johnson et. al 2024).

The results of the study drive home the fact that students are still connecting and relearning how to go to school. Only about 50% of students in the survey went to school in-person during the 2020-2021 school year, 25% were online, and 18% were in a hybrid model (Johnson et. al 2024). Researchers also found that on average, students switched school settings 0.61 times that year (Johnson et. al 2024). Of those who eventually moved from an online model to in-person learning, it took an average of 5.4 months to do so (Johnson et. al 2024). This study also to Stankovska et al. (2023) when we see the results in other areas. Parent involvement increased greatly yet parents surveyed reported feeling less effective and less qualified to help their children (Johnson et. al 2024). Parents also answered that their children had a much harder time in 2020-2021 to work independently which led to parents getting frustrated at a lack of being able to help (Johnson et. al 2024).

This study set a baseline for future research by looking at the first full year during the Covid-19 pandemic. However, a big limitation is that it did not look at any other factors besides age difference. The study had a large sample size with responses from 43 out of 50 states and

each state made its own Covid-19 policies. Researchers do state that like Stankovska et al. (2023), more needs to be looked at going forward. The pandemic affected students today and educational leaders need to harness all they can to get kids back on track while staying mindful of how even one year of altered education can shake children mentally.

All four of these studies address the issue of mental health in education today. This theme is vital to understand because at the heart of the world of education is the students and their well-being. If we look at data and know kids need more access to MH support but educational leaders aren't being fully prepared to give that support then things need to change. As suggested in the first theme, one means of supporting students is delaying their school day by even one-half hour. If their mental attitude and outlook are more positive then academic performance also increases. Perhaps with a more positive outlook in school, the need for MH resources would in turn decrease.

The research above emphasized the issue of student mental health, focusing on the years after the Covid-19 pandemic. The studies repeatedly showed that educators need all resources possible in order to support the ever-changing needs of students today. Studies also showed that depression, anxiety, and fear have all greatly increased in recent years while also offering solutions on how to combat those feelings in students. Results were not exclusive to only high schoolers, as even university students expressed some of the same feelings in recent years. Although the sample sizes were limited to one school or a small group of respondents, studies proved that the feelings and responses of students were uniform across the board. The following studies will explore a topic that most agree is a distraction today, but are unsure of how to patrol it successfully. That is the use of technology and how teachers can harness it within their pedagogy while allowing students to use it constructively in the classroom.

## **Technology Use in School**

The last theme of research pertains to the use of technology in the classroom and explores its impact on student outcomes, mental health, and overall success in the classroom. The following studies yielded mixed results and shined a light on how students use technology like their cell phones but also how educators can harness what can be a distraction into a true learning tool in order to enhance student success.

The U.S. Department of Education along with the Institute of Education Sciences (2019), conducted a study on an issue that directly impacts student mental health as mentioned in the previous theme and that is cyberbullying. This was a qualitative study conducted from the 2010 and 2016 school years and data was reported from the School Survey on Crime and Safety. The survey asked public school principals about violence and crime in their schools, security measures the school takes, disciplinary problems and actions, the presence of security staff, and other related issues within their respective buildings. The sample consisted of over 3,000 public K-12 schools in all 50 states as well as the District of Columbia. The reported years of data were the 2009-2010 and 2015-2016 school years. The study focused on two main questions with the first considering the frequency of principal reported cyberbullying incidents in 2010 compared to 2016. The overall reporting increased from 7.9% in 2010 to 12% in 2016. (U.S. Department of Education, 2019). This result included incidents both at and away from school. The categories of increase were schools that reported cyberbullying occurred Daily/Weekly, Monthly, and Occasionally. The only response to show a decrease was 'Never', which went from 37.7% of schools to 19.1% (U.S. Department of Education, 2019). This is a large drop and shows that cyberbullying rarely never takes place in buildings today. The second question highlighted was concerning cyberbullying reports in schools that do or do not have a cell phone use policy.



Surprisingly, principals reported more cyberbullying takes place in schools that do *not* allow phones while in school. Overall reports showed 9.7% of school principals report daily/weekly cyberbullying in their building that allows phones in school, yet 16.4% in buildings that prohibit phone use (U.S. Department of Education, 2019). This study did not seek out ways to prevent cyberbullying from taking place but does bring to light an issue that will impact student mental health. It also showed a trend that may surprise some, that schools with a cell phone prohibition policy in place reported even higher levels of cyberbullying. Which then begs the question is taking cell phones away from students solving core issues?

The next study will try and explore that very idea. This qualitative study conducted by Gajdics et. al. (2021) compared state anxiety levels of students during a regular school day and on an experimental “mobile-free day” in which participants did not carry their mobile phones to any classes. The study sample consisted of students from a small-town secondary school in Hungary. A total of 324 students participated but due to dropout, only 179 girls and 56 boys were analyzed (Gajdics et. al., 2021). There were limitations right away. The ages ranged from 14-20 years old with a mean age of 16.57 years old (Gajdics et. al., 2021). Accounting for the dropout rate at 27%, that meant that only 73% of the students analyzed on the regular day were still around to be analyzed on the mobile-free day. The study was conducted in two phases. At Time 1 (T1) students participated in data collection at the end of their last class on a regular school day. One week later at Time 2 (T2), on the mobile-free day, student handed in their phones to a teacher prior to starting their first class and couldn’t get them back until after their last class. Phones were locked up and stored and the original idea for the mobile-free day was derived from staff and the principals as students using their phones regularly in class had been a reported issue.

Participants voluntarily accepted questionnaires with the first consisting of 14 statements that asked about student's separation anxiety, security base, and the need for constant continuous with others. The other measured student engagement while in class by asking 12 items relating to being active, being able to pay attention, and the feeling of learning while in class. The results showed that anxiety levels increased on the mobile-free day which supported the theory that separation from the device would cause feelings of increased stress. The study also showed little to no increase in engagement while in class as students were more concerned about getting their devices back. One limitation of this study was the small sample size. After dropouts, the already small group got even smaller which doesn't give a fair result. The experiment could be repeated and broadened to more schools for a more accurate result. Another limitation is that data was only measured on one day. It was not collected over time or a span of years or follow students as they grow. This would help in the future to see trends of comfort or if students get used to not having their devices at all times. The results showed that anxiety may increase and that instead cell phones may be best used when they are incorporated into the learning process.

Morris et. al. (2020) conducted a mixed-methods study in order to try and answer that very question. Do cell phones have a place in education but need to be monitored? 76% of university instructors in the research study have a phone policy of some kind to try and limit its distraction factor (Morris et. al., 2020). The study wanted to find out if educators are integrating phones into their instruction as a way to harness them and not look at them solely as a distraction for students. The study surveyed more than 150 college instructors and sought to find out what their phone policies were, where they originate from, and how they are enforced. Participants were recruited through newsletters and 4,000 higher education instructors were sent a mass email in an attempt to create a sample group (Morris et. al., 2020). Participant's ages ranged from 24 to

76 years old with an average age of 49.65 years old (Morris et. al., 2020). Time spent in the department ranged from 1-50 years with an average of 17.15 years employed (Morris et. al., 2020). Males also represented 37.38% of respondents (Morris et. al., 2020). Participants voluntarily completed an online survey which consisted of 37 total questions including; 13 open-ended, 24 multiple-choice, and 10 demographic questions (Morris et. al., 2020). A total of 156 instructors from around the United States completed the survey, yet after sifting for proper responses the final group was only 132 (Morris et. al., 2020).

Results showed that 77% of college instructors had a mobile phone use policy. 88% of those instructors also included it on their syllabi with 91.6% saying they created it themselves rather than the department or institution (Morris et. al., 2020). Of those with a policy, 54.1% reported that it is effective and 54.6% answered that they impose penalties for improper use (Morris et. al., 2020). A key part of the study is that instructors were also asked about mobile phone policies while they were undergraduates and 75% of them said that cell phones did not exist while they were in school and a total of 87% of college instructors surveyed had no experience with cell phones from a student perspective (Morris et. al., 2020). To this end, the study found that at least half of the respondents feel strongly that when used in an undisciplined manner, cell phones can be distracting and harmful to student success in the realm of learning, attention, engagement, and classroom climate (Morris et. al., 2020). Instructors expressed a need for policies but the backlash and negative attitudes by students were not always worth the effort to patrol a policy. To combat a limitation of the study, a more diverse and youthful sample of respondents would perhaps lead to greater insight on how cell phones could be used more effectively in the classroom today. Although the study was of college instructors, the principles could be applied to high school-level teachers as well.

Unlike the above survey, the following research study by Fernandez, (2018) sought to get a student's perspective on an issue that seems to be plaguing education. This quantitative survey was given to 179 students in the East Cape Province of South Africa and used a 5-point scale to gather data. The researcher himself conducted the surveys personally by visiting the students in the classroom. The participants answered voluntarily and the responses were anonymous and confidential. 106 students were male, 71 were female and 2 did not identify. 175 were between the ages of 18 and 28, 2 were between the ages of 29 and 45, and 2 students did not identify. The survey was split into two categories. The first included 10 statements that were answered with Strongly Agree, Agree, No Opinion, Disagree, and Strongly Disagree. At the same time, the second category consisted of 23 statements ranging in response from Always, Frequently, Sometimes, Few, and Never. Echoing the survey by Morris et. al. (2020), 77% of students agreed or strongly agreed that classroom instructors should have guidelines restricting phone usage (Fernandez, 2018). However, it is noteworthy that students showed positive attitudes about cell phone use in university classrooms during lectures. The study concluded that while phones create distracting and off-task behavior, students feel cell phones have enhanced their overall learning process (Fernandez, 2018). One notable limitation is the sample size and location. This study was conducted in South Africa with only 179 higher education students.

Overall, the research above brought mixed reviews about an issue that both educators and students recognize as an issue today. Researchers found commonality in responses among students and staff, namely that cell phone use impacts and distracts students in the classroom. However, there was not one single best result as to how to combat the use of cell phones to prevent that very issue. Generally, technology can be and is harnessed can to the best teachers can while they implement policies to structurally limit its distraction. Yet research also showed

that students believe that they can use technology to not only help them in class but use it to excel in school.

### **Review of the Proposed Problem**

In light of what is known about pedagogy in the contemporary educational setting, how shall educators lead equitably and inclusively in order to positively impact student development and learning and what are the best ways that educators can meet the variety of needs of a diverse high school student body during the school day in order to positively impact student development and learning? The research studies above honed in on four major themes attempting to find what the best way to structure school for high school students today really is. The first theme highlighted school start times and how starting the day even 30 minutes earlier can greatly impact the outcomes and academic performance of high school students. The next theme involved the academic structure of student schedules. This theme compared the benefits and downfalls of trimester and semester schedules, hybrid or flexible learning models, as well as PSEO options for students. The third theme involved overall student health, focusing on the gaps in education after the Covid-19 pandemic. The research explored issues that have been around education for years but are becoming more widely known and addressed. The final theme explored the use of technology in the classroom and how it can negatively impact our students.

### **Review of the Importance of the Topic**

Helping student reach their highest academic potential is why educators do what they do. Educational leaders strive to make a positive difference in kid's lives every day. Unfortunately, there is no formula for how to do that, nor a blueprint of how to build the perfect educational experience for all students. Yet educators try many different models, attempt new policies, and through trial and error make discoveries about issues in school and figure out ways to solve

them. Even though the research above shows data that benefits our students like starting the day later in the morning, building flexible time into their schedule, giving them access to resources, or limiting the use of technology, there isn't a district in the nation that has the perfect educational experience. However, that does not mean educational leaders are not trying to find it. We must be aware of what works and what does not, what practices benefit our students and which ones are outdated. Education, like a class roster and a young mind, is ever-changing. Yet educational leaders continue to implement strategies and structures to give their students the greatest opportunity to succeed.

### **Summary of Findings**

In the research above, four themes became very clear. These themes provided a variety of structures, strategies, and suggestions that would help high school students reach and break through their academic ceilings. In the research completed by Peltz et. al. (2022), Temkin et al. (2018), Fuller et. al., (2024), and Marzano Research (2020), the recurring finding was that school for adolescents needs to be pushed back to a later starting time. Kids between the ages of 13 and 18 are not getting enough sleep and these studies offered ways to improve not only the time of sleep but see positive changes in student's attitudes, participation, and attentiveness while decreasing feelings of depression.

In the research conducted by Showell et. al (2019), Bair et. al. (2010), Castañon et. al. (2023), and Akinde, (2022) found that the way a school year is structured can have a large impact on student outcomes as well. Researchers found that flexible schedules, PSEO opportunities, and simple semester structures seemed to be the best fit while giving kids the opportunity to accomplish things at their own pace. The research incorporated perceptions of successes and feelings of the need for improvement on behalf of both students and teachers.

In the research completed by Johnson et. al (2024), Stankovska et al. (2023), Papa (2018), and Johnson et al. (2023) gave great insight to student needs and mental health concerns. Research showed great gaps in education after the Covid-19 pandemic of 2020 and into 2021 and stressed the need to address mental health still today. The research suggests that not all educational leaders are ready nor properly trained to address mental health and the dire need for an increase in services and resources to address the needs of all students.

In the research conducted by the Institute of Education Sciences (2019), Gajdics et. al. (2021), Morris et. al. (2020), and Fernandez, (2018) found mixed reviews about how and if educators should spend time combatting the use of technology in school. Cell phones have proven to be a distraction factor for students, yet research was mixed about how much effort should go into patrolling their use of it. Instructors admitted that even when a policy was in place, the effort may have been greater than it was worth to police the issue. Students, when embraced correctly, told researchers that their academics have benefitted from the incorporation of phones during class instruction.

## **Conclusion**

In closing, the research above has shown a variety of issues and challenges in education today as well as a variety of solutions to combat and improve them. Focusing on four themes of study, the research explored issues like students needing more sleep, academic schedules and structure of learning, student mental health, and how to combat the distraction of technology in class. All four themes strive to make education the best experience for all students and connect in that all studies sought to create an environment that would positively impact students. The following chapter will discuss the insights gained from the research above and how those insights can be applied to the profession going forward. Furthermore, the next chapter will also

discuss future research studies that could be conducted to answer the question of what is truly the best way to teach students to ensure everyone succeeds.



### **Chapter Three: Discussion, Application, and Future Studies**

This final chapter will dive deeper into the research analyzed in the literature review. It will explore the insights and knowledge gained while trying to find the absolute best way to structure education to meet student's needs today. None of the research above pointed to one exact match for all students but through the four themes of school start times, scheduling structure, student mental health, and use of technology in the classroom attempted to see what works and what clearly does not help kids succeed in the classroom today. This chapter will also seek ways that the findings may be put to good use going forward in the field of education along with future studies that could be conducted and how they may build off of the results found here.

#### **Insights Gained From Research**

Throughout the research, there were a few insights gained as well as research that echoed other studies. One insight is that secondary education seems to benefit most students when in a semester schedule structure. Multiple studies attempted trimester schedules and for many reasons on behalf of both students and teachers, it hurt everyone's progress. Teachers felt rushed and pressed for time to cover material, while students were not given adequate time for remediation and some quickly fell behind. Another similarity among studies involved phones in classrooms. Overall, data shows phones are a distraction but studies haven't yet found the best way to rid them from the classroom. Staff struggle to keep kids off them, while kids can't help but stay on them. Educators have tried multiple ways to try and combat the issue of phones in class without a truly right answer. Some studies found that taking them away completely led to kid's anxiety levels rising instead of their attention levels. Others, on the other hand, have tried to harness them and walk that thin line that keeps kids both happy and engaged in their learning.

Another insight is that education is ever-changing and with it, our students. Education as a profession looks very different since the Covid-19 pandemic. The pandemic brought to light issues that may have been present for years when it comes to student's mental health and correlation with academic success, we just never saw them. Now that mental health seems to be at the forefront of what educators are mindful of, they can at least become more aware and mindful as to how to address the issue. Or maybe educational leaders have known what issues plagued student success for years now, but they aren't trained or equipped with the resources to address them.

for years change may be the heart in the right place, but the results are mixed. Many

The final insight is there is no true best way to organize education to meet the needs of absolutely everyone, but we can try. Studies repeatedly showed that whether it is the electives offered, the pushing back of school start times, the limiting of technology while in school, or how the academic year is structured some students thrived while others did not. This insight brought reflection on how educators' and educational leaders' hearts may be in the right place as they always try to do what's best for kids yet have not been able to find that solution yet. It does not mean we'll stop trying, but does mean we may need to try different approaches that reach a wider variety of students.

### **Application of the Research**

When implementing school or even district-wide changes like schedules, start times and technology limitations can lead to students having an instant and surprise result or reaction. It is easy to change or implement changes at the beginning of the school year but the kids already in that system should be considered as well and given time to adjust. For example, instead of the end-all-be-all approach to change, perhaps a tiered introduction would work better. Building on

prior experiences such as a phone ban at the middle school level will follow the freshman class through high school and then each year after knows the expectation. Versus simply taking them instantly from everyone school-wide at the high school level. That way kids get used to the idea and set an example for graduating classes in the future.

A second application addresses student's mental health, especially in the recent past. Bringing student needs to the forefront instead of letting them get lost in budgets needs to be a priority. If more resources like school counselors, school nurses, or psychologists are needed, we need to get them. Teachers cannot realistically be expected to learn 40 or more names in each of their high school classes, build meaningful relationships with each student, contact parents with concerns, and read, understand, and memorize every IEP and 504 Plan all while keeping with grading and preparation for their actual class to be taught. Studies showed how important student mental health is and how it was impacted even more greatly by the pandemic but educational leaders can't use budgeting or a lack of hiring as a valid reason when it negatively impacts students. We need to get kids what they need and when they need it.

The final application that could be brought into the field is to not overthink what works. Take what data shows us works and apply it. The biggest example that positively impacts high school students is delaying the start of the school day. Since years of data and multiple studies show results that are positive like increased attentiveness, students feeling less sleepy, and increased positive outlook, those systems should be put in place sooner rather than later. continue to try what we think may be best and reflect on those attempts.

### **Future Studies**

The forefront of any future study should be finding a solution and not simply collecting data. One study could be a state-wide implementation of schedule change at the high school

level. When data repeatedly shows that teenage students are more attentive, less tired, and have fewer behavioral issues when they start their day even 30 minutes later, it should be done. Data could be collected within each district over 5 years and reported back to the state to see how things are working. If student feedback and results only support previous findings then a later scheduled start time will be here to stay.

A second study that would address student mental health would be one that intentionally increased staffing in counseling, case managers, special education teachers, and school resources for students. Understanding that the study would require an investment in staff and resources, it could compare students' needs and visits to counselor's offices, frequency of behavioral issues or referrals, and survey students to get their feedback on always knowing they have resources when they need them. In turn, if the feedback from students over a few school years is positive, a permanent investment could be made and budgeted for going forward eliminating an excuse as to why some districts can't get students what they need.

A third and final future study should incorporate a larger sample size which some studies lack and use it to make a tiered cell phone policy implementation. The study would create a year-by-year implementation that would eliminate the "cold turkey" method of getting technology out of the classroom and starting in a given school year. Then follow that graduating class through their high school journey and each incoming freshman class would then know the expectation and be able to mentally prepare for that policy. This study would attempt to minimize student anxiety and allow for more time to process what their experience will be.

## **Conclusion**

Bring yourself back to that classroom you walk into every day. Look at your students five years after a global pandemic, now what do you see? Perhaps you see students who missed out

on a few events in middle school, didn't get to participate in their eighth-grade graduation or had to attend their freshman homecoming online. Perhaps you noticed that more and more students can't speak comfortably to one another, they are glued to their phones and seem tired all the time. But what if instead, you saw a group of students who brought out the best in you as an educator or educational leader? Those same tired, distracted kids are depending on you to make their experiences while in school the best it could possibly be. Those same students are counting on you to deliver the resources they need to reach their potential. The same young leaders of tomorrow who rely on your leadership and thrive on you giving them the knowledge they'll hold onto for a lifetime. Is your classroom, district, or the education system perfect? Absolutely not. After dissecting all of the above studies, interviews, and research, maybe there isn't one single perfect way to teach all students. However, that doesn't mean we as educators are not going to keep trying until we find the answer to our calling's biggest question.

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### Appendix – Article Tracking Matrix

<b>Articles</b>	<b>Method</b>	<b>School Start Times and Daily Schedules</b>	<b>Academic Structure &amp; Classes Offered</b>	<b>Student Mental Health</b>	<b>Technology in Schools</b>
Akinde, 2022	Quantitative		X		
Bair et. al., 2010	Qualitative		X		
Fernandez, 2018	Quantitative				X
Gajdics, et. al., 2022	Qualitative				X
Johnson R. L. et. al., 2023	Qualitative			X	
Johnson R. M. et. al., 2023	Qualitative			X	
Mariana Castañón et al., 2023	Mixed-Methods		X		
Marzano et al., 2020	Quantitative	X			
Morris et. al., 2023	Mixed-Methods				X
Papa, 2018	Mixed-Methods			X	
Peltz et. al., 2022	Qualitative	X			
Sarah C. Fuller et. al., 2024	Quantitative	X			
Showell et. al., 2019	Qualitative		X		
Stankovska et. al., 2023	Quantitative			X	
Temkin et. al., 2018	Qualitative	X			

U.S. Department of Education, 2019	Qualitative				X
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