Examining Teaching Styles and Classroom Management Through The Lens of Self-Determination Theory: Implications For Race, Culture and Discipline

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ABSTRACT

EXAMINING TEACHING STYLES AND CLASSROOM MANAGEMENT THROUGH THE LENS OF SELF-DETERMINATION THEORY: IMPLICATIONS FOR RACE, CULTURE AND DISCIPLINE

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Northern Illinois University, 2022
Kelly Summers, Director

Background/Purpose: Historical and contemporary research has clearly demonstrated that racial and cultural minority students experience discrepant school discipline when compared to their White peers, which leads to profound negative outcomes. While a number of steps have been taken to address this discrepancy, Self-Determination Theory (SDT), and specifically the Basic Psychological Needs Mini-Theory (BPNT), can potentially inform teaching styles that could be used to increase motivation and engagement for racial and cultural minority students by addressing the basic needs of autonomy, competence, and relatedness. The purpose of this study was to conduct exploratory research using the Situations In Schools (SIS) questionnaire to assess the degree to which teaching styles by teachers are autonomy-supportive and competence-building and to correlate teaching styles of teachers to the frequency of discipline given to racial and cultural minority students by teachers.

Methods: The instruments used for this study include the Situations in School (SIS) questionnaire developed by Aelterman and colleagues and teacher self-reported disciplinary occurrences by race and English Language Learner (ELL) demographic given together as a combined survey sent to teachers of middle school students from 12 participating schools in the suburbs of Chicago, Illinois. The sample size ranged from 118 to 120 depending on the measure
used. Data was analyzed through descriptive statistics, frequency tables, and correlation matrices.

**Results:** From the four teaching styles of *Autonomy, Structure, Control,* and *Chaos* on the SIS, Teachers were mostly likely to use *Structure* and *Autonomy* in the classroom and far less likely than the other two. There were no significant correlations found between *Autonomy* and *Structure* and the reduction in disciplinary occurrences for racial and cultural minority students, but there were some significant correlations between a teacher’s use of *Control* or *Chaos* in the classroom and the increase in student disciplinary occurrences for some subgroups.

**Conclusions:** The findings of this study demonstrate that the SIS is most effective when it is given to both teachers and students, reinforcing the postulation of Aelterman and colleagues that both perspectives are needed to give a more balanced score for teaching styles. Although there were no correlations found between teaching styles that promote autonomy and competence in students and the reduction in student discipline, the correlation between controlling and chaotic teaching styles and the increase in disciplinary occurrences should lead districts, professional development practitioners, and policymakers to promote teaching styles that promote autonomy in order to reduce disciplinary occurrences for racial and cultural minority students.

**Keywords:** Self-Determination Theory, SDT, Basic Psychological Needs Theory, BPNT, Situations in School, SIS, autonomy, competence, relatedness, structure, control, chaos, teaching styles, classroom management, discipline, suspension, minority group students, racial bias, disproportionate representation
EXAMINING TEACHING STYLES AND CLASSROOM MANAGEMENT THROUGH THE
LENS OF SELF-DETERMINATION THEORY: IMPLICATIONS FOR RACE, CULTURE
AND DISCIPLINE

BY

PETER J. CUNNINGHAM
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A DISSERTATION SUBMITTED TO THE GRADUATE SCHOOL
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FOR THE DEGREE
DOCTOR OF EDUCATION

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Kelly H. Summers
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The writing of this dissertation could in no way have been accomplished without the support of many outstanding individuals filled with kindness, wisdom, integrity, and character. The researcher would like to thank Dr. Kelly Summers, Doctoral Director, for her continued encouragement and shared excitement for the progress the researcher made. Because of her investment and support, the researcher believes that they have made great progress as a researcher in the field of Education. The researcher thanks Doctoral committee member Dr. Benjamin Creed for asking insightful, impactful questions while also helping form the way to answer the questions in the Dissertation. The researcher is grateful for Doctoral committee member Dr. Bhavna Sharma-Lewis, who is also the researcher’s Superintendent. The researcher can think of no better example of someone who is a culture builder that values and fosters kindness, risk-taking, creativity and character in every level of the organization. The researchers hopes that one day they will be a leader like her.

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CHAPTER 1
INTRODUCTION

Context

Historical and contemporary research has clearly indicated that racial and cultural minority students experience discipline discrepantly compared to their White peers. This trend has been reported as early as 1975, when the Children’s Defense Fund examined the results of suspension nationally. The group noted that the suspension rate was so much higher for Black students than White students that it was clear to the group that there was a problem even before doing any analysis of the data. The trend has largely remained in place over time as other racial and cultural minorities have been included in the research. Skiba et al. (2011) found that Black and Latinx students both experience higher disciplinary rates than their white peers. Horner, Fireman and Wang (2010) found this to be true regarding school suspensions. This discrepancy in the data, both historically and in recent history is alarming because research has indicated racial and cultural minorities do not misbehave any more than their White peers (Peguero & Shekarkhar, 2011; & Skiba et al., 2011). These findings are consistent regardless of age and grade-level.

The consequences of discrepant disciplinary experiences are significant. The effects of exclusionary discipline are often a reduction in academic engagement, which is one of the biggest predictors of success in school (Skiba et al., 2011). Because this happens from an early age, Rocque and Paternoster (2011) concluded that Black students are in danger of being put on what has been called the school-to-prison pipeline as early as the primary grades. Bates and
Glick (2013) found that the hidden biases of teachers resulted in poorer behavior assessments of minority students. This can mean over-identification of Emotional Disabilities (ED) for racial and cultural minority students (Bal, Betters-Bubon, & Fish, 2019).

A number of potential ways schools, districts and teachers can mitigate the disciplinary discrepancies have been put forth in a number of studies. Hughes et al. (2005) believed that positive connections between school and home should be developed by teachers. Similarly, Skiba et al. (2011) emphasized the need for schools and districts to regularly analyze disciplinary data and discuss any trends related to racial and cultural minorities. They also emphasized the need to train staff in equity policies and practices and explore disciplinary practices outside of exclusionary discipline. More recently, Bates and Glick (2013) concluded that teachers should be aware of how hard it can be for students that do not see themselves in the demographic of their teachers, and that teachers need to be aware of any intrinsic bias they may have.

**Theoretical Framework Overview**

Findings by psychologists and educational researchers that apply Self-Determination Theory (SDT) to Education potentially informs classroom structures and management strategies that teachers could employ to meet the basic psychological needs of students, which ultimately may improve the classroom experiences of students and reduce discrepant disciplinary experiences. The SDT mini-theory known as the Basic Psychological Needs Theory (BPNT) focuses on meeting the three needs of autonomy, competence, and relatedness so students will gain the intrinsic motivation to continue to develop. BPNT drives much of the research focused on how teachers and schools can support all students in their development. Some studies link SDT to the experience of racial and cultural minorities in schools. Manganelli et al. (2021) noted that immigrant students regardless of country reported a lack of the needs of autonomy,
competence and relatedness being met. Park, Holloway and Arendtsz (2012) found that Black and Latinx students tended to rate themselves with a higher level of engagement than teachers rated them, which is interesting. Katz and Assor (2006) found that building relatedness in the classroom aids the meeting of basic psychological needs in a multicultural classroom. Studies have expanded to focus on the need to build relatedness in racial and cultural minority students even at the college level if student motivation to complete the program is going to be maintained (Isik et al., 2020).

Some research has been conducted to assess teacher classroom structures and classroom management, which could have a clear application to the types of classrooms that would benefit all students, particularly racial and cultural minorities who have experienced discrepant discipline in the midst of teachers’ classroom structures and expected behavior reinforcement. Masland (2021) shared that structures need to have a clear rationale and explanation if students are going to internalize the values of the teacher and increase their engagement in the class. Aelterman et al. (2018) developed a tool called the Situations in School (SIS) questionnaire that measured teachers’ motivating styles to look at how they handle situations and structures in the classroom (2018, p. 1). Aelterman and colleagues used the SIS with Belgian students and focused on testing the tool’s validity. However, there are opportunities to use such a tool with teachers in the U.S. in order to measure the degree to which teachers provide the environment to motivate their students. Because Aelterman et al. used potential correlative measures, they found that the motivational functioning of the teachers has a strong correlation to student learning and adaptive outcomes by students.
Need for Knowledge

Self-Determination Theory has shown significant promise regarding its application to education. There is a significant need for knowledge regarding how teachers think about their classroom management and structures, and whether there is a need to provide professional development for teachers regarding how they can shape their teaching styles and structures in order to address the basic psychological needs of students and therefore increase motivation of their students. This type of teaching and management style could particularly benefit racial and cultural minorities, who are punished more by teachers and schools. With regard to the Situations in Schools (SIS) questionnaire, the limitations acknowledged in the study that there was a change made to the questionnaire to add more questions, and that it needs to be used more to assess its validity among teachers (Aelterman et al., 2018, 22).

Statement of the Problem

The problem addressed in this dissertation was the discrepant disciplinary outcomes for racial and cultural minority students in U.S. classrooms. The problem was explored by examining teaching styles and structures in order to assess the degree to which motivating teaching styles are used by teachers teaching students in the middle grades.

Significance of the Problem

Despite the emphasis by districts training teachers in intervention strategies and culturally responsive teaching, disciplinary discrepancies still exist in the classroom. Examining the structures, classroom management, and teaching styles used in the classroom is critical to informing how districts can provide training for teachers in autonomy-supportive strategies that build motivation for multicultural classrooms. Building such strategies may help address the effects of implicit bias by teachers as they discipline their students.
Purpose of the Study

The purpose of this study was to conduct exploratory research using the Situations In Schools (SIS) questionnaire to assess the degree to which teaching styles by teachers are autonomy-supportive and to correlate teaching styles of teachers to the frequency of discipline given to racial and cultural minority students by teachers. The SIS questionnaire with disciplinary data was given to 135 teachers of early adolescent students (ages 11-14) at 15 different schools in the suburbs of Chicago, Illinois.

Significance of the Study

The study categorized four major motivating styles (Autonomy Support, Structure, Control, and Chaos) of middle school teachers in order to determine if there is a need to provide professional development or other related supports to teachers so they can create a more autonomy-supportive environment. The potential findings were thought to be significant because an ability to see if teachers emphasize autonomy can inform how teachers are supported and trained so they can address the basic psychological needs of racial and cultural minority students and in turn help to build intrinsic motivation, engagement, and reduce classroom disciplinary discrepancies. The results of the study indicated that there was not a significant correlation between any of the teaching styles and discipline with the exception of control.

Organization of the Study

A total of 23 schools in the Chicago suburbs and the greater Northern were invited to participate in the study. Prior relationships existed with most of the schools involved in the study and the researcher. Principals were sent a scripted email inviting their school to participate in the study. If requested by the Principal, the researcher worked with district administrators to disclose the questionnaire and seek approval to disseminate. Out of 23 schools,
12 schools elected to participate in the study. Each school had varied student demographics with regard to race, social-economic status (SES) and English Language Learner (ELL) status. Next, teachers were sent the questionnaire in a scripted email for completion. After the questionnaire was reshared with each school the survey was closed.

**Research Questions**

The overarching research questions guiding this dissertation were:

RQ 1: What are the trends and patterns in discipline in U.S. schools, particularly in the schools being investigated in this study?

RQ2: What does the Situations in Schools (SIS) Questionnaire reveal about middle school teachers’ approach to their teaching style as it relates to autonomy support, structure, control and chaos?

RQ3: What correlation(s) can be found between the frequency and types of consequences given to racial and cultural minorities and the teaching styles of teachers on the SIS?
CHAPTER 2
LITERATURE REVIEW

Introduction

In order to understand the relevance and interconnectedness of the three research questions, a review of literature is necessary around a few key concepts. In order to understand the scope, trends, and continuing patterns of discrepant disciplinary outcomes, it is important to know the history of research regarding such discrepancies, in addition to contemporary perspectives and policies. It is also important to note what researchers have concluded about why discrepancies might exist and the recommendations that have already been made to schools and districts. Self-Determination Theory research in education has an opportunity to inform how teachers could adjust their behavior and perspective to provide more equitable disciplinary outcomes through addressing Basic Psychological Needs of students. Understanding the theory and how it has been applied to educational settings gives insight into how building autonomy, competence and relatedness in the classroom can be beneficial to students from diverse backgrounds. The way teachers approach managing their classroom and support student development through the lens of Self-Determination Theory has the potential to reduce discrepancies in discipline for racial and cultural minority students and increase positive outcomes in school for the same subgroups.

Racial and Cultural Discrepancies in School Discipline

As long as there has been schooling there has been some form of school discipline with the goal of shaping student behavior and maintaining order in the classroom to ensure students
and teachers can focus on learning tasks. School discipline can be in the form of minor in-class actions such as verbal reprimands, redirections, or restorative practices. School discipline can also be in the form of more significant actions such as suspensions or expulsions. There are a number of key terms used when discussing significant student disciplinary actions. For the purposes of this paper, school discipline is any type of school-administered consequence to a student’s actions that violate a school’s code of conduct and/or norms of appropriate behavior.

An office referral is when a staff member refers a student to the school administration or Dean to address a student disciplinary infraction. Suspension is a consequence, usually performed by the school administration, that removes students from the educational environment by assigning them a number of days that they must stay home from school. Expulsion referrals to disallowing a student to attend a school or any other schools within a district for a long period of time, typically for at least a year. Expulsion is another form of consequence for a disciplinary infraction. Corporal punishment is when an educator, typically a school administrator or Dean, punishes a student by giving a strike, or swat, on the buttocks. Restorative practices refer to having a form of restitution whereby the offending parties have an opportunity to hear from the offended parties and discuss making amends and establish a plan moving forward.

While conversations about what were appropriate types of discipline and the impacts of the different types has been ongoing, it was not until the 1970’s once school desegregation had started that discussions about discrepancies in race in school first emerged.

**Historical Perspective**

Discussions about discrepancies by race in school discipline first emerged in the 1970’s. At the time, the focus for any research or policy perspectives focused primarily on Black vs. White students with regard to school suspension and corporal punishment. This became a
relevant topic to explore given that schools had been in the process of desegregating and had data to compare both subgroups.

One of the earliest and most influential works that impacted future school discipline researchers was the 1975 book from the Children’s Defense Fund and the Washington Research Project, *School Suspensions: Are they helping Children? A Report*. Suspension data from 1972-1973 that was submitted to the Office of Civil Rights from 2,862 districts was used in conjunction with interviews from 6,500 surveys from families in nine states. Additionally, 300 school officials and community leaders were interviewed. The book largely condemned the practice of school suspensions. Chapter 4 focused exclusively on racial discrimination in school suspensions. When looking at the data, 29 states were found to have suspended over 5% of their Black population versus only 4 states who suspended 5% of white students. It was clear to the researchers that discrimination existed from the quantitative data without even studying the reasons. Interviews with school personnel revealed a theme of educators that were either hostile or insensitive to Black students. When looking at individual districts, Illinois was one of the worst offenders, having 7 of the top 11 districts for the number and percentage of Black students suspended. Given that there were districts with similar demographics that did not disproportionately suspend Black students, the researchers concluded that the behavior of the administrators was reason for concern and not the behaviors of Black students. The researchers were alarmed to see that Black students were suspended longer than white students and lost more than double the days of school. To combat this discrimination, they gave 3 proposals. First, they believed there needed to be a federal compliance program for districts with regard to suspension numbers. Second, they believed the Office of Civil Rights should adopt a Discipline Policy.
Lastly, the researchers proposed training for teachers and partnerships with community groups to address disciplinary practices.

School leaders began to draw attention to the imbalance in corporal punishment and school discipline around the same time. On April 10th, 1976, Gonzalo Garza, Deputy Superintendent of General Instructional Services in the Houston Independent School District, gave a speech regarding the practices to the National School Boards Association. He noted that teachers were not teaching good behavior and specifically reinforcing it, but were instead demanding it. He noted the immediate stress on school systems and teachers when “Blacks, Whites, and Browns” were going to school together for the first time. Garza expanded on the findings of the Children’s Defense Fund, and stated that the combinations of different races and ethnic groups meant “misconceptions, stereotypes, and assumptions” from the teachers when dealing with students of a different race. In fact, the dynamic in some schools was Black versus White, which was part of the national narrative. Garza believed that the skills, competencies, and commitments of the school administrators to show children care was paramount to bring effective teaching and discipline to schools for all students.

Kaeser (1979) also studied the negative effects of school suspensions on students. By studying quantitative data from 82 school districts in Ohio from 1975-1976, Kaeser found that minority students were suspended discrepancy even before desegregation, but that desegregation added to the problem. Black students were suspended at more than twice the rate of White students. For the first time, Kaeser noted that Black students were not exhibiting a higher rate of serious offenses like assault, but were being suspended for attendance, defiance, and abusive language. When offering solutions, Kaeser suggested decriminalizing certain behaviors, which
became a theme of future researchers. Additionally, Kaeser noted that more districts need to gather, report, and study discipline data.

Wu et al. (1980) expanded on Kaeser’s work by using a national sample of 4500 districts from the 1978 Congressional Safe School Study in order to find out if school suspensions was a student issue or a systems issue. Using survey data, Wu et al. noted a correlation between the student perception that the teachers lacked interest in them and a higher rate of suspensions. Additionally, when schools relied on administration for discipline over the classroom teacher, there were higher rates of suspension. This did not mean that schools with fewer suspensions lacked good governance. In fact, the opposite was found to be true. Wu et al. noted that if students were considered lower ability, they were disciplined more. While this point was not expanded upon at great length, future researchers would connect this perception to race. When controlling attitude and behavior differences using an Attitude and Behavior Scale, the suspension rate remained higher for nonwhites. The same conclusion was reached when accounting for poverty. Wu, Shi-Chang et al. concluded that racial bias plays a role in suspension, and that it is a systems issue in schools. They importantly noted that simply adding more minority teachers did not help based on their research.

Despite Wu et al.’s (1980) conclusions about racial bias playing a role in school suspension and the conclusions of earlier studies, the discrepancies continued to persist into the 1990s. In 1990, Shaw and Braden again examined the role of race and gender bias while looking specifically at corporal punishment. The researchers used a test-bias model while studying discipline records from 6,244 school districts in Florida from 1987-1988. In the case of this study, corporal punishment was considered, “a swat or lick to the buttocks of the student with hand or paddle” (p. 379). They found that bias existed, but could not conclusively say it was
because of the bias of the teacher or the administration. Another study analyzing the same phenomenon was done by McFadden et al. (1992) using 4,391 Florida schools from 1987-1989. Using a Chi Square Model, McFadden et al. (1992) found that Hispanic and White students had lower disciplinary referral rates than their Black peers. 36.7% of all types of punishments were given to Black students. Of that group, 73.8% were Black males. McFadden et al. further discovered that Black male handicapped students were most at-risk for severe punishment for the same offenses as their peers. Unlike the Shaw and Braden (1990) study, McFadden et al. concluded that racial bias exists with the teacher, and that teachers and administrators need to use interventions other than punishment to address behavior. This was because punishment seemed to have a positive correlation to increasing student recidivism. McFadden et al. recommended against an autocratic school environment.

The following research indicated this advice went largely unheeded by schools. Researching racial discrimination in schools began to increase significantly at the turn of the 21st century. Gordon, Piana, and Keleher (2001) studied the Racial Justice Report Card used by community organizations in several U.S. cities in order to study the presence of racial bias in schools, including with discipline. The Gordon et. al study importantly noted that Black students, along with Latinx and Native American students, faced disproportionate expulsion and suspension numbers. This conclusion would be found in future studies examining racial and cultural minorities beyond the earlier studies of Black versus White. Additionally, this study looked at the academic imbalances and found that students of color were more likely to drop out or be pushed out of school than white students. The perception of students of color and their communities was that they were receiving an inferior education. When trying to look at disciplinary data, Gordon et al. found that many districts refused to keep data, and so they first
recommended that all schools keep this data and publish it in an annual “Racial Equity Report.”

It would seem that the recommendations of the Children’s Defense Fund in 1975 were not heeded. Unlike previous studies, the Gordon et al. study gave a large number of recommendations for the system of education. Some of these recently have caught-on. They recommended a culturally appropriate learning environment, the elimination of zero-tolerance policies, the use of data reviews, and to look at any disciplinary decision through the lens of race. Additionally, Gordon et. al. recommended more teachers of color.

Despite the fact these issues had been documented and persisted for so many years and some suggestions have only recently been implemented, important questions were still outstanding. Questions like, “Why did disciplinary discrepancies for racial and cultural minorities continue to persist?”, and, “How did the disparities continue and even grow despite evidence it was happening?” and, “What changes are needed?” remained unanswered. These questions were taken up by researchers in earnest during the early 2000’s and have been engaged with since. Researchers have continued to seek to understand the theoretical, systemic, and individual contributors to the persistent problems of disproportionate disciplinary actions and outcomes.

**Theoretical Explanations of the 2000’s**

One of the first studies on race from the psychological perspective was an analysis of teacher ratings of behavior among Black and White students during the first two years of school. This study by Sbarra and Pianta (2001) was looking for racial bias by using Teacher-Child Rating Scales for 540 students in a small southern district during their first two years of school. Sbarra and Pianta found that Black students were rated as having more behavior problems and fewer competencies. They found it useful to encourage building competence-related intervention
instead of behavior intervention for students in their early years. They pointed out that teachers thought Black students were not gaining the necessary and important school-related skills. Also in 2001, Skiba et al. noted that when studying office referrals, Black students were referred by teachers for different behaviors than White students. White students would be referred for behaviors like smoking, vandalism, and language, while Black students would be referred for disrespect, excessive noise, threats, and loitering. Skiba et al. challenged the bias of the teacher, again relating the discrepancy to a systems issue. They made some important recommendations that have become more commonplace recently, including teacher training on appropriate classroom management and increased family and community partnerships. While these were important conclusions, it is interesting to see how these suggestions were made as early as 1976 with Garza.

Fenning and Rose (2007) tackled the role of school policy with Black students and exclusionary discipline. They first concluded that Black students were not fitting into the established norms of school, and teachers were referring students for discipline for fear of losing control. This had allowed for Black and Latinx students to be labeled “potentially dangerous.” They also looked at prior research that found this phenomenon was occurring in other Western countries. They encouraged the collection of data like other studies, but added the formation of a discipline team that analyzed data and implemented Positive Behavior Supports (PBS). PBS has more recently evolved into Positive Behavior Interventions and Supports (PBIS), which has become a part of a significant number of districts across the country. Fenning and Rose also emphasized the need to build cultural competence.

One of the most recent studies used the differential involvement hypothesis to see if Black students misbehave more than their White peers. Huang (2018) examined the prevailing
theory established by this point that racially disproportionate discipline was a systems issue and/or a bias issue. Huang used a national dataset on suspension by 10th grade students and a number of surveys given to those students. Huang found that certain behaviors like fighting were higher for Black students, while other behaviors like drug use were higher for White students. Black students faced more subjective suspensions for behaviors like disrespect, which suggested bias and Black students were found to be suspended twice as much as White students. This solidified decades of research that the bias of the teacher and of the school institution was where reforms should be focused.

**Contemporary Perspectives**

Analyzing the history of research in school discipline has led to the need to focus on bias in the systems of education. Since there is likely the presence of both implicit and explicit bias, some of the most important studies have been done from the psychological and sociological perspective. There have been a significant number of empirical research studies done over the last fifteen years that have utilized the vast information in district, regional, and State disciplinary data warehouses in order to draw conclusions about how race and culture play a role in discipline. Psychologists, sociologists, and other researchers have been able to discover important trends that have informed recommendations for districts to address school discipline with race and culture in mind.

**Psychological Perspective**

When examining school discipline from the psychological perspective, researchers have been interested in exploring human behavior in order to gain insight into what types of behaviors, motivations, and perspectives may be causing a discrepancy in discipline and what solutions schools could implement to address the behaviors, motivations, and perspectives of key
individuals like teachers, students, administrators and parents. A number of studies look at the office referral data based on race across an entire, district, state or region to look for any group that may be overidentified and potentially facing marginalization (Skiba et al., 2011; Horner, Fireman and Wang, 2010). Some studies explored teacher feelings toward students and correlated the feelings to punishments (Okonofua and Eberhardt, 2015; Hughes et al., 2005). Some took peer-to-peer perceptions of student behaviors correlated with disciplinary infractions and race (Horner, Fireman and Wang, 2010). Teacher relationships with families of students from another race was explored, and the likelihood of disciplinary infractions for minorities versus the likelihood of punishment to see if there is a discrepancy was examined (Hughes et al., 2005; Okonofua and Eberhardt, 2015; Peguero and Shekarkhar, 2011).

Many psychological studies that have been conducted within the last 15 years have taken advantage of the trove of data that has come from districts using behavioral software and documentation methods as well as the demographic data on students and families that is readily available from school districts and State records. Skiba et al. (2011) used a national sample of 436 schools grades K-9 that represented 120,418 students that volunteered their PBIS data for review. Horner, Fireman and Wang (2010) used 8 schools from a single school district in the Southwest and analyzed their disciplinary data. Both studies came to very similar conclusions, which were that racial and cultural minority students faced discrepant discipline from both teachers and administrators. Skiba et al. (2011) found that Black and to some extent Latinx students had higher removal rates from school at the elementary level. Black students were twice as likely than White students to receive an Office Disciplinary Referral (ODR). They summarized their findings by saying that “across urban and suburban schools, quantitative and qualitative studies, national and local data, African American and to some extent Latinx students
have been found to be subject to a higher rate of disciplinary removal from school. ” This was an extremely important finding, because they also found the opportunity to remain engaged in academic instruction was the biggest predictor of academic success for students. Horner, Fireman, and Wang (2010) found when analyzing the data from their 537 3rd-5th grade students that the best predictor for disciplinary action was the child’s race. Black students were more likely to be disciplined than any other race. In fact, the rate was 6.93 times that of their peers. Boys were more likely to be disciplined than girls, but it was not the strongest predictor of disciplinary action. The Horner, Fireman, and Wang (2010) study was limited in the sense only exclusionary discipline was examined, and unlike in the Skiba study the demographics of the teachers and administrators administering the consequences was not taken into consideration.

Some studies measured how teachers might feel about students based on their perceived race coupled with the number of infractions. Okonofua and Eberhardt (2015) had teachers look at pictures of students and/or names of students and have teachers guess their race. Teachers also were asked the likelihood that they would rate a student a troublemaker, and if they could visualize themselves suspending the student. This was a national sample from a small number of teachers (57 and then 204 for part two). Okonofua and Eberhardt found that teachers were more likely to consider multiple infractions to be a pattern with a Black student than a White Student. Additionally, a Black student was more likely to be labeled a troublemaker than White student. Teachers were also more likely to imagine themselves suspending Black students over White students for future infractions. Using a home-school relationship questionnaire given to teachers, Hughes et al. (2005) found that teachers reported having better relationships with White and Latinx students and their families than with Black students. This study examined the correlation of positive relationships to academic performance by analyzing the Texas State Literacy
Assessment, reported student demographics, and teacher likert-scale ratings of students in their families. The study itself found inconclusive results for a correlation between academics and relationships using a regression analysis. The study may have suffered by being narrow in scope because only 607 1st grade students with scores below the median were considered and because the teacher demographics were not diverse. Out of 173 teachers the demographic breakdown was: 73 teachers (93.4% female); 45 (79.2%) White, 20 (10.9%) Hispanic, 4 (2.2%) African American, 2 (1.1%) Asian, 1 (0.5%) American, and 1 (0.5%) Other.

Horner, Fireman, and Wang (2010) examined how students rated their peers to look for a correlation between peer ratings of their peers' pro-social behavior and the correlation to receiving exclusionary discipline. Students rated by their peers to have the least prosocial behavior were the most likely to be disciplined. Students who were rated to have the most overt aggression, who were consequently most often Black, had the most disciplinary occurrences. The Horner study made another important statement that it was very possible that teachers and schools were asking students to follow Caucasian norms. This speculation would provide context to both the teacher ratings of students and the student ratings of one another and would be worth further study.

One important element of note in the Hughes et al. (2005) study is the aforementioned findings on teacher relationships with families. Hughes et al. (2005) sees a possible connection to the White culture of a teacher and the Black culture of parents as a possibility for a weaker relationship due to the lack of shared understanding and trust. Parenting practices, communication styles, and educational beliefs that are different between the 80% white teachers and Black parents could also be a factor. While Hughes et al. do not draw a clear conclusion,
this is an important question that must be asked if real trust and progress is going to be made in this area.

The Okonofua and Eberhardt (2015) and Hughes et al. (2005) studies found that there was a significant difference between the experience of Black students and White (and to some degree Latinx) students. The largest population in the district, however, is Latinx. When examining that group of students, the findings of different studies varied. Peguero and Shekarkhar (2011) had a very important study that examined discipline when accounting for the generations of Latinx immigrant families. The study used data from the Education Longitudinal Study of 2002. The study included 7,250 students that were in 10th grade or higher from 580 public schools. When accounting for school size and demographics, generational status, educational achievement of the parents, and the socio-economic status (SES) of the school, Peguero and Shekarkhar (2011) came to a number of important conclusions. They found there was no statistical difference in misbehavior for White and Latinx students. Additionally, there was no statistical difference in misbehavior in Latino vs. Latina students. White female students were less likely to misbehave than White males, and 1st generation Latinx students were less likely to misbehave than White male students. There was no statistical difference in misbehavior for 2nd and 3rd generation Latinx/a students and White students. Yet despite this, both Latino and Latina students had a higher likelihood of punishment than White male students. 1st and 2nd generation Latino/a students had a similar likelihood as White males to be punished despite exhibiting better behavior than White male students. 3rd generation Latino/a students faced a higher rate of discipline than their White male peers.

As an aside, the Peguero and Shekarkhar (2011) study found that Increased involvement in school decreases likelihood of school punishment but not misbehavior. It is important to note
with this study that only high school students were measured. However, the Skiba et. al (2011) study provides some reinforcement to the Peguero and Shekarkhar (2011) study by concluding that to some extent Latinx students are more likely to have a disciplinary consequence that results in removal from school. Additionally, they go on to note that, “At the elementary school level, African American students were more likely than White students to be suspended or expelled for any offense, and Latinx students more likely to be suspended for all offenses except disruption.”

**Sociological Perspective**

Studies completed from the sociological perspective are interested in the values of society and how the society affects individual students and subgroups of students. Some studies used quantitative data to show there are some school cultures and environments where racial and cultural minorities are more likely to face discipline (Morris & Perry, 2016). A number of studies focused on the effects of discrepant disciplinary practices by schools have on racial and cultural minority students (Rocque and Paternoster, 2011; Bal, Betters-Bubon, & Fish, 2019; Peguero et al. 2015;). A few studies have considered the race of the teacher in relation to student academic and disciplinary experiences (Bates & Glick, 2013; Bal et al., 2019).

A number of studies from the sociological lens used quantitative data to examine the racial discrepancies in exclusionary discipline. Morris and Perry (2016) used hierarchical and longitudinal data from the Kentucky School Discipline Study from a large, urban school district coupled with discipline and academic data from individual schools. Their sample size was 6,248 students grades 6-10 from 17 different schools. About 65% were middle school students, and students were split evenly by gender. Their study focused specifically on the “association between race and ethnicity, suspension, and academic achievement.” Their results “indicate[d]
that Black students are estimated to be 7.57 times as likely to be suspended as white students \((p < .001)\), and Latinxs are over twice as likely as whites \((OR= 2.39; p < .001)\). Students of other races are predicted to be 2.61 times more likely to be suspended than whites \((p < .001)\), while Asians are less likely than Whites \((OR=.20; p<.001)\)” (p. 76). Additionally, they found that family structure has little effect on suspension occurrence, and that declining Measures of Academic Progress (MAP) scores have longitudinal correlation to suspension. These findings led them to conclude that Black and Latinx students are disproportionately susceptible to suspension compared to White students in the same school. Black students are more susceptible to suspension regardless of any other factor, and students with suspensions score lower on end-of-year academic assessments than those who do not. Most concerning was their conclusion that suspensions are correlated with subsequent years of poor academic performance even if no more suspensions occur. This places a major weight on any disciplinary decision that should be known and felt by those administering consequences and providing training to teachers.

Rocque and Paternoster (2011) developed a similar study that came to similar conclusions about the damages that can be done by suspensions and exclusionary discipline, especially from an early age. They studied the disciplinary and school demographic records of 22,000 students in 45 elementary schools in the mid-Atlantic region of the United States. Students were evenly divided by grade and gender. They found that “15% of black students were disciplined compared to 6% of whites.” They also found that “the probability for African-American students is 27% higher than for other students—even after taking into account such things as their grades, attitudes, gender, special education or language program, and their conduct in school as perceived by teachers.”. They analyzed these findings from the Racial Threat Hypothesis, which states that “an increase in the minority population can be perceived as
menacing by racial majorities who respond to the perceived menace with more stringent means of social control.” With this in mind and the fact that Black students had the highest rate of referrals to the office regardless of teacher characteristics, Rocque and Paternoster (2011) concluded that Black students are disciplined more than white students as early as elementary school, and that this precipitates a process of discrimination and disengagement as a pattern begins early. Their research suggests Black students experience disengagement early and therefore are on the school to prison pipeline from an early age. It also suggests that the actions of school officials are likely partially responsible for academic failure of Black students. This puts the onus on schools to address this problem that begins very early.

Bal, Betters-Bubon, and Fish (2019) expand some of these findings beyond just Black students to Latinx and Native American students, while also examining the potential overidentification for Black students as having an Emotional Disability (ED). Exclusionary discipline data and students who had emotional disabilities listed were analyzed for all 429,725 Wisconsin public school students during the 2010-2011 school year. Bal, Betters-Bubon, and Fish (2019) found that there was an “elevated risk of placement in ED for students who are male, African American, Native American, received FRL, and who transferred, respectively.” Additionally, “African American students and Native American students were two and three times more likely to be identified as emotionally disabled.” They did differ from the Rocque and Paternoster (2011) study in that Bal, Betters-Bubon, and Fish (2019) found some other factors that contributed to discrepant discipline and ED labels. This included that male students and students who received a Free or Reduced Lunch (FRL) were three times more likely to be referred than females and those students who did not receive FRL. Also, “students who transferred were four times more likely than those who did not transfer to be labeled with ED.”
Interestingly, Bal, Betters-Bubon, and Fish (2019) found that Latinx students were underrepresented with ED diagnoses, which they thought was possibly linked to the English Language Learner (ELL) status of many Latinx students in Wisconsin.

ELL information from the Bal, Betters-Bubon, and Fish (2019) study would be helpful for districts to analyze in conjunction with the immigration data from the Peguero et al. (2015) study. In the Peguero et al. (2015) study, demographic and achievement data was pulled from data from the base year of the Education Longitudinal Study of 2002. They analyzed the data from 9,870 high-school students from 580 public schools, including student self-reported data of how involved they were at school and if they had received exclusionary discipline. They found that Black Students had the most disciplinary occurrences, followed by Latinx, White, and Asian Americans respectively. Black 1st, 2nd and 3rd generation immigrant students were less likely to misbehave than White students. Latinx 1st and 2nd generation students were less likely to misbehave, but the 3rd generation was more likely to misbehave. They concluded that minority children of immigrants experience disparate punishment from all levels of school. This is not the case for White children of immigrants. The degree of disparity varies by minority. And again, this is despite the findings that children of immigrants are less likely to engage in misbehavior in school. This type of information brings the experience of all minority students and minority immigrant students into focus.

A small handful of the research examined how the race of the teacher factors into the treatment of students that share the same race. Bates and Glick (2013) accomplished this by using the Early Childhood Longitudinal Study Kindergarten Cohort of 1998–1999 (ECLS–K). Teachers rated students in grades Kindergarten, 1, 3 and 5 throughout the student’s education using the Teacher Social Rating Scale (SRS), which measures student externalizing behaviors.
Because of the demographics of the teachers, White students were most likely to have a teacher of the same race; followed by Black, Asian, and Hispanic. Males and children with a home language other than English received worse ratings from teachers. Asian teachers rated students as having externalizing behaviors more than white teachers. With these factors and results considered, Bates and Glick (2013) had some significant findings. Teacher ratings of students are consistent with stereotypical characteristics. Teachers rated Black students more likely to have externalizing or problematic behaviors, Asian students had the least, and if a multiracial student appears Black they were rated the same as a Black student. Students receive more favorable ratings from teachers with the same ethnicity, and because of this Black students suffer the most because they have the least exposure to same-race teachers. They separately concluded that Children in Title I schools received poorer assessments from teachers. Their findings indicate the possibility of hidden bias of racial hierarchies are prevalent in classrooms. Consequently, policy and training can help uncover these biases in teachers. Although the Bal, Betters-Bubon, and Fish (2019) study came to a different conclusion that the race of the teacher was not statistically significant enough to have any bearing on the likelihood of a student being labeled ED or being given exclusionary discipline. Given the scope and size of that study, their conclusions must be given serious consideration.

**Significant Research Conclusions**

The authors from both the psychological and sociological studies draw a number of important conclusions that inform what topics teacher classroom management professional development would need to be taught in order to give important context for race and culture. One of the primary elements of any teacher professional development plan would need to involve letting the data do some of the talking so teachers can draw conclusions and begin to
reflect on their practice and the practice of educators as a whole on a national level. The Peguero et al. (2015) study concluded that minority children of immigrants are less likely to misbehave than their native-born peers. However, the disciplinary numbers indicate they are punished discrepantly. Bal, Betters-Bubon, and Fish (2019) discussed disproportionality of Latinx and Black students being suspended and being overidentified for Emotional Disability labels (pp. 9-10). From the psychological perspective, the Okonofua and Eberhardt (2015) study exposed that teachers are more likely to see Black students having behavior problems and patterns than White students.

Each of these studies allow for teachers to see there is a national problem with how discipline is administered. More importantly, the Okonofua and Eberhardt study helps teachers understand that their own peers have a bias. The data helps remove barriers of defensiveness and a lack of openness about there being a personal or systemic issue. Any professional development for staff will need to open with this data.

The research suggests a need to inform staff on the profound academic consequences for racial and cultural minorities, particularly Black and Latinx, that face discrepant exclusionary discipline. Any professional development for staff will need to have a focus on holistic approaches to student discipline and training in restorative processes. Teaching the school to prison pipeline will be extremely important. While it may not have seen relevant in the past, the conclusions of the Rocque and Paternoster (2011) study that students begin to suffer the effects of school discipline from an early age should be a sobering reminder that the impact of how students are disciplined is extremely formative at the younger grades that that those teachers need to prioritize the use of restorative discipline practices. Similarly, the Okonofua and Eberhardt (2015) related studies exposed a possibility that educators label minority students as
children with problematic behaviors that require exclusionary discipline. Any professional development for staff will need to tie the widely-used teaching practice of reflection after teaching a lesson for its effectiveness to the need to reflect after giving consequences. Districts with Discipline or PBIS teams should also have the practice of sharing out discipline data monthly that shows discipline for different ethnic, cultural, and other subgroups so teachers can reflect on their own discipline versus the whole of the experience of a student group in the school. The findings of Skiba et al. (2011) further drive the need to provide this type of staff training because of the close links of academic engagement, which includes avoiding the use of exclusionary discipline, to academic success. In fact, the Skiba study gives a roadmap to what data practices would be most beneficial:

At the school level, (a) data on discipline by race should be reported regularly (monthly) to faculty, (b) policies focused on prevention and culturally responsive practice should be encouraged, and (c) investment in developing appropriate social behaviors should be made before resorting to exclusionary consequences. At the district and state level, (a) disaggregated data on discipline patterns should be available and disseminated, (b) policies addressing disciplinary inequity and promoting equity should be established, and (c) personnel development options should be made available to minimize the disproportionate application of discipline.

And in that study it was the Black and Latinx students that suffered stronger academic consequences due to exclusionary discipline.

Connections between home and school are very important. Hughes et al. (2005) were able to demonstrate that these connections are weaker with teachers and Black families, which is a serious problem. Teacher training typically lacks any instruction on how to have beneficial conversations with parents and teachers are not given the tools to help parents when their students are struggling. Consequently, if teachers then choose to either not call home or have an interaction that is perceived as confrontational or accusatory, the ability to have a similar
message for the student at school and at home is lost and trust for the student can be damaged.

Any teacher training on management will need to involve tips and tricks for how to build relationships with parents. This portion of the training would also need to incorporate some teaching on how impactful it is for students when they see or do not see themselves in their teachers. Training should be informed by the findings of Bates and Glick (2013), so that teachers understand the positive impact they can have if they share an ethnic background with a student and how much harder teachers will need to work on building a relationship if they do not share the same background.

**How Policy Has Addressed Discrepant Discipline**

While researchers have consistently found the data to indicate discrepancies in discipline for racial and cultural minorities, a number of policy initiatives at the national and state levels have been initiated and implemented in order to address these discrepancies. Many of these policies have been fairly successful when implemented with fidelity.

**Positive Behavior Interventions and Supports**

Both the 1997 and 2004 reauthorization of the Individuals with Disabilities Act (IDEA) and No Child Left Behind (NCLB) called for research-based systematic strategies to improve student outcomes. One of the earliest and still widely-used systems is Positive Behavior Interventions and Supports (PBIS). Originally for students with disabilities, this system expanded as part of a comprehensive Response to Intervention (RtI) program at many schools. Schools that use PBIS offer behavior supports for the school, for the classroom, and for individual students who exhibit problem behaviors. This multi-step, or tiered approach to intervention, is the backbone of RtI. This continuum of support for all students with evidence of success has resulted in federal funding and regional PBIS technical support centers for states and
for school districts to effectively develop systems that support positive behavior for all students. Districts are cautioned to make sure they adjust programming so that it is “culturally or contextually appropriate,” which can be a pitfall of implementing PBIS if the behavior systems do not reflect the culture of the student body and the community (Sugai & Horner, 2009).

**Culturally Responsive Education and Discipline**

Many researchers both from the historical context and contemporary context have concluded that schools need to incorporate culturally adaptive or culturally responsive educational practices. Culturally responsive education can be defined as practices that “encourage high academic performance; employ culturally relevant tactics; and teacher critical consciousness”, or “teaching to and through student’s background cultures and experiences (Lustick, 2016)”. Discipline is connected to culturally responsive education, because misbehavior is an opportunity for teaching skills. Conflict is an inevitable part of the schooling process, and therefore it is an opportunity for reflection and growth by the student and by the teacher. Such an approach became a necessity for many schools after the U.S. Department of Justice released its School Discipline Initiative. Under this initiative, school districts need to reduce racial disproportionality or face the prospect of a federal investigation (Lustick, 2016). This guidance provided specific information that explained the mandates of the Every Student Succeeds Act (ESSA). ESSA required States to collect data on exclusionary discipline, provided funds to be used toward behavior intervention programs, and required school districts to develop plans for reducing exclusionary discipline (Gregory & Fergus, 2017). States have responded by developing laws and policies to reduce exclusionary discipline disparities. For example, Illinois enacted SB 100 in 2015, which eliminated zero-tolerance policies and reserved exclusionary discipline for only infractions that threatened safety or would cause severe disruption. It also
mandated that districts in Illinois provide culturally responsive disciplinary training (Illinois Education Association Fact Sheet, 2015).

Since this federal initiative began, school districts have more aggressively pursued training that helps teachers see the implicit bias, which can be defined as “the attitudes or stereotypes that affect our understanding, actions and decisions in an unconscious manner (Staats, 2014)”. School districts that focus on training teachers in culturally responsive education and school discipline strategies typically make sure five key elements are addressed: teachers recognizing their own implicit bias, understanding their students’ cultures, understanding the broader contexts that influence education, effective and appropriate classroom management strategies, and building a culture of caring in the classroom (Milner IV & Tenore, 2010).

**Restorative Justice**

In many ways, restorative justice movements and policies in districts are connected to culturally responsive discipline practices and in response to the federal School Discipline Initiative and subsequent state laws like Illinois’ SB 100. SB 100 required schools to pursue restorative practices in lieu of suspension in an effort to decrease discrepant exclusionary discipline practice and decrease recidivism. Restorative practices are “an umbrella of tools that educators can use to establish positive relationships with all students and stakeholders (Kline, 2016)”. When implemented correctly, restorative practices are a general approach focused on building trust and community through the use of community circles and common rhetoric. When harm is done, restorative conferences are a non-punitive approach that allows for making things right for everyone involved. The outcomes of empowering students while building a positive
school climate and reducing violence make this initiative important for schools to comply with the federal mandate and implement culturally responsive practices (Kline, 2016).

Because they are not punitive in nature, restorative justice initiatives have been linked to reducing the school-to-prison pipeline for students of color (Schiff, 2018). Additionally, they have been found to be a great supplement to PBIS, because sometimes schools will establish rules and norms to follow that are not reflective of the values of the student and community culture, but rather the values of the teachers and of White students (Hirschfield, 2018).

**Gaps in the Current Literature**

Both the psychological and sociological research informs many important foci for staff professional development and training on classroom management that considers race and cultural differences. Further research is needed into current best practices in professional development to deliver such messaging to teachers and the results of culturally responsive teaching and other proactive practices on school discipline and culture. Further research is also needed into the most effective methods for partnering between the school and the home.

Historical and contemporary research has made a point of addressing racial bias and talks about culturally responsive and aware teaching. Staats (2014) points out that explicit teaching about the existence implicit bias is one of the most effective ways for combatting it. However, the Sbarra and Pianta 2001 study does offer another set of conclusions that are largely unaddressed in the current research. They discuss the need to build competence in students during the early grades so they gain “necessary and important school-related skills.” The idea of helping students healthily develop has not been largely explored when looking at the ways to train teachers to support equity in the classroom, especially in the sense of students that are a racial and cultural minorities building a stronger sense of self in the context of the school system.
Indeed, in a 2014 study, Skiba and colleagues point out that teacher perceptions of the seriousness of discipline are influenced by many factors, including the skill of the teacher, their history, the context of the behavior, and resources for dealing with behaviors. This can lead to a high rate of variability in the discipline used by the teacher. They conclude that among other things, principal leadership and an achievement orientation by the school could be effective to address bias instead of focusing simply on student characteristics or behaviors.

A gap exists in the research surrounding how teachers can build all student’s sense of self. An interesting study in 2020 by Isik and colleagues examined how ethnic minorities struggle with motivation in medical school. Using Self-Determination Theory (SDT), their qualitative study found that ethnic minority students struggled with a lack of motivation to complete medical school. Isik et al. determined that “culture-related experiences and factors can greatly influence students’ autonomy and relatedness.” Autonomy and relatedness are two of the most basic needs in SDT. They concluded that because students could not relate to their medical school peers or the structure of school, they therefore struggled with motivation. It was hard for students to present confidently, and their ability to relate was further damaged by the lack of ethnic role models in medical school and in the medical field. Situational motivation was affected because in some of the minority student’s cultures it was improper to ask supervisors questions, while it was expected of students in medical school. In SDT, the phenomenon observed was through the lens of “global, situational and contextual motivation”.

There are clear potential applications for using Self-Determination Theory when looking at school discipline from a psychological needs perspective. Research is needed to see how autonomy, relatedness, and competence are fostered or not fostered with K-12 students in schools, and what conclusions of such research could do to inform teacher training and school
policy regarding building motivation for students. This can start through understanding the origins and relevance of Self-Determination theory as it relates to the motivation of students.

**Student Motivation**

Many psychologists and researchers have shown an increased interest in studying motivation and the role it plays for both students and teachers. Understanding predominant motivation theories, both past and present gives insight into why Self-Determination Theory has some promising applications for educators. Addressing student motivation can help teachers, schools, and districts create conditions where all student subgroups, including racial and cultural minorities, can be successful.

**Motivation Theories**

**Motivation: Importance and Definition.**

The factors that influence and are impacted by motivation have been of interest to psychologists studying education for much of contemporary history. Motivated students can be diligent workers, have self confidence, show interest in activities, stick with a task, and have good performance. Conversely, unmotivated students are not systematic in their process of learning, do not organize and study material, do not check for understanding, and do not ask for help (Shunk, Pintrich & Meece, 2002). Because of this, learning about how to understand and improve student motivation has become an important pursuit of educators. Motivation can be defined as “the process whereby goal-directed activity is instigated and sustained (Schunk, Pintrich, & Meece, 2002)”. According to Schunk et al. (2002), researchers can agree on a few important characteristics of motivation. Motivation is a process, so it is inferred based on actions. Goals are considered key drivers of motivation. As a process, motivation requires either physical or mental activity that advances students’ attainment of goals. This activity must be
“instigated” and “sustained,” because students must begin moving toward a goal and continue toward that goal if there is adversity (pp. 4-5).

**Recent Historical Perspectives and Theories of Motivation**

Because motivation can influence the what, when and how of learning, developing theories about motivation has been robust and diverse (Schunk, Pintrich, & Meece, 2002). In 1990 Pintrich and De Groot looked for correlations between motivation, cognitive, and academic performance level and found that motivation could be linked to cognitive strategies like self-regulation and to different measures of academic performance. Schunk and colleagues modified different forms of feedback that students received in a 1982 study and found that students whose teachers linked past successes when giving feedback showed stronger motivation and consequently stronger growth (Schunk, Pintrich, & Meece, 2002).

Findings like these have led to researchers identifying four key behaviors that demonstrate the degree to which a student is motivated. The first one is the choice of tasks. Students who pick tasks to complete when given a free-choice show motivation to complete the task. Choice emerges as a major theme across the body of motivation in education research. Students that show strong effort, especially in the face of adversity, exhibit strong motivation. Similarly, students that show persistence over a long period of time typically also have higher levels of motivation. Choice, effort, and persistence have been shown to raise achievement, the degree of which has strong ties to the level of motivation students show (Schunk, Pintrich, & Meece, 2002, pp. 11-12).

**Historical Motivation**

One of the first major theories of motivation was related to the concepts of will and volition. Introduced by Plato and Aristotle, the will was a reflection of a “desire, want to
purpose,” while volition was acting out the will of the individual (Schunk, Pintrich, & Meece, 2002). Psychologist William Wundt in 1879 developed a theory of volition and will using the process of introspection, where he would ask participants in studies to report their experiences right after exposure to objects or events in order to understand their consciousness. Wundt theorized that volition was an essential independent factor in human behavior and helped turn mental processes into actions. His theory was difficult to prove. William James built on Wundt’s theory in the late 1890s when he postulated that will was a state of mind and volition helped execute the action the mind wanted through mental representation. This process was named ‘determining tendencies’. This was a partial picture of motivation, because how people formulated the goal or desired action was not addressed (Schunk, Pintrich, & Meece, 2002).

The concept of instinct or innate inclinations that were manifested in behaviors was a theory developed by James in 1890 and McDougall in 1926. The object triggering instincts could be changed, thereby affecting motivation and learning. The problem with this theory was that where instinct ends and learning begins is unclear (Schunk, Pintrich, & Meece, 2002). Sigmund Freud’s theory of personality had some connections to motivation. He thought of motivation as psychical energy. This energy builds-up when needs exist, and the individual channels energy into behaviors to reduce the amount of needs of the individual. Again, this theory lacked consideration of cognition and environmental factors like teachers or schools (Schunk, Pintrich, & Meece, 2002).

Behavioral theorists have introduced a robust body of research regarding motivation and how it could inform educational practices. Schunk, Pintrich and Meece (2002) believe that these behavioral theories “view motivation as the change in rate, frequency of occurrence, or form of behavior (response) as a function of environmental events and stimuli. Because motivation can
be defined by how likely a behavior is to occur, behavioral theorists have been able to produce clear, observable phenomena and data. This is in contrast to cognitive theories, which focus on motivation being internal and not observable. Thorndike’s 1913 theory of connectionism was an early example of behavioral theory. He theorized that learning occurred gradually as connections between successful and unsuccessful experiences are imprinted or removed by repetition. Central to his theory was the Law of Effect, where the more satisfying an outcome between a situation and response, the stronger the connection becomes for an individual. The consequences of behavior are both motivating and produce learning (Schunk, Pintrich, & Meece, 2002). Responses that produce annoying or punishing consequences were not learned.

Thorndike made a number of explicit connections to education. Thorndike believed that teachers should help students form appropriate habits and break bad ones. Teachers should introduce skills when it is immediately usable in some way and is appropriate to what the learner can handle. It should also be sequential to future skills (Shunk, 2012). Schools readily follow this model of curriculum design, but they typically segregate skills by subject.

Pavlov’s famous 1928 theory of classical conditioning is one of the most well-known behavioral theories that connects to motivation. By creating a positive conditioned stimulus that is associated with something good like dog food, a dog will begin to salivate when it experiences the stimulus because it expects food. The more this is reinforced, the stronger the conditioned response by the dog. Its application to education can be found in the classroom environment teachers create. Teachers want to associate learning with pleasurable consequences, so they want to have a pleasant, positive environment and structure to their classrooms (Schunk, Pintrich, & Meece, 2002).
Out of the three major behavioral theories, B.F. Skinner’s Operant Conditioning theory has been in many ways the most impactful in education. There are three elements to his theory. There is an antecedent, which leads to a behavior, which leads to a consequence. In terms of education, the antecedent could be the teacher giving an assignment. The student completes the assignment, and the teacher praises the student. That praise acts as a positive reinforcer, which can reinforce the student demonstrating the desired academic behavior again. Punishment can be used to decrease the likelihood of a student exhibiting undesirable behaviors, like refusing to complete work or wasting time. Teachers and schools readily use reinforcement and punishments as key components of the classroom and school structures and environments (Schunk, Pintrich, & Meece, 2002). Behavior modification programs might use the concept of backup reinforcers, where students exchange points for tangible rewards (Shunk, 2012). Skinner also believed in a clear arrangement for instruction when operating under this theory. Teachers should present information in small chunks, learners need to actively respond to the learning, teachers need to give feedback to the learners’ responses, and learners need to move through the material at the pace right for them (Shunk, 2012). Schools have used cooperative learning strategies and scaffolding strategies that align to these recommendations.

Drive theories have also been influential on the concepts of learning and motivation. Drives “are internal forces that seek to maintain homeostasis, or the optimal states of bodily mechanisms (Schunk, Pintrich, & Meece, 2002)”’. When the body has a need (like water), a drive pushes the person to get that water. In 1943, Hull theorized the concept of Systematic Behavior theory based on ‘effective reaction potential,’ where the likelihood a behavior is a direct function of drive, the strength of one’s habits, and the level of fatigue or inhibition from responding to a reinforcement. Hull later refined his theory to explain that motivation for goal
attainment is a performance. Rewards like meeting the goal does not always mean learning will take place (Schunk, Pintrich, & Meece, 2002).

In order to address goals, purposive behaviorism was developed by Tolman in 1932. This theory stressed goals, which is a key component of motivation unaddressed by a number of the other early theories. For example, a high school student studies not only because they score well on tests, but because they have a goal to be accepted into college. Studying leads to learning and higher grades, which helps achieve this goal. Tolman described cognitive mechanisms like cognitive maps, which are internal plans one forms that require actions to meet goals. Toman and Honzik observed the concept of latent learning in a 1930 study, where mice learned the features of a maze without reinforcement, drives, or rewards. This has been an important concept in education, that students can learn without rewards (Schunk, Pintrich, & Meece, 2002). Intrinsic motivation would emerge later as an important theory. Additionally, in 1975 Dweck found that occasional failure helped motivate students to persevere more than constant success (Shunk, 2012)

Arousal theories consider the role emotion has in the process of motivation. Some postulated that emotion caused a behavior. The James-Lange theory postulates that emotion does not affect behavior but is the effect of the behavior. Cannon argued the opposite in 1927. While these theories conflict, educators have applied them to look for optimal levels of motivation and to avoid boredom and negative emotions and interactions in the classroom (Schunk, Pintrich, & Meece, 2002).

Cognitive consistency theories developed in the middle of the twentieth century and emphasized an interplay with behaviors and cognitions. Heider’s 1946 balance theory stressed the need for individuals to find balance in their life between persons, situations and events.
Festinger’s 1957 cognitive dissonance theory stated that people want to be consistent when it comes to their beliefs and behaviors. If there is dissonance, people are motivated to correct it. In education, if there is conflict between peers or teachers, then people may be motivated to improve relations and restore the balance (Schunk, Pintrich, & Meece, 2002).

Humanistic Theories have also made a contribution to motivation as it relates to education. Carl Rogers theorized that people develop a concept of self as a result of interactions with important people and the environment. People want unconditional positive regard instead of conditional regard from others. With regard to education, students need meaningful, experiential learning that connects to the whole person and is self-initiated. Teachers are most effective when they are facilitators of learning and do not simply tell students what to do. Teachers ideally help students develop goals and the process to achieve them. Teachers should also make it clear they care about students regardless of behavior or achievement (Schunk, Pintrich, & Meece, 2002).

Contemporary theories on motivation focus on the role mental processes, or cognition, plays in motivation. Current theories also view motivation as having a reciprocal relationship with learning and academic behaviors. Motivation is thought to change as people develop, which makes motivation a complex phenomenon. Importantly, motivation can also be a reflection of differences in cultures, ethnicities, gender, and ability levels (Schunk, Pintrich, & Meece, 2002). As psychologists continue to unpack the complexities of motivation, the practices of teaching and learning will continue to evolve.

**Self-Determination Theory**

One of the contemporary theories of human motivation that has been of great interest to psychologists and researchers throughout the world is Self-Determination Theory (SDT). SDT’s
development can largely be attributed to Richard Ryan and Edward Deci. The theory itself is very broad and encompasses the concepts of “motivation, personality development, and wellness (Ryan & Deci, 2019)”. As a broad theory, it is encompassed by six mini-theories which have been formed over time through empirical studies and conclusions. This gradual formation of the elements of this broad theory is called building “Brick by Brick” by Ryan and Deci (2019).

SDT first developed when Ryan and Deci were exploring intrinsic motivation in 1975. At the time, motivation science had largely been focused on behavioral theories, which dealt with external factors and how the environment could help to shape and control behavior. Ryan and Deci shifted the focus from external factors to the self, whose job is to assimilate external and internal drives. Someone’s level of intrinsic motivation would be reflective of their levels of curiosity, their interests, and their tendency to assimilate. This could be from environmental factors like one’s culture and social experiences, and also drives, emotions, and basic needs. Throughout the course of their research, Ryan and Deci found that autonomy, competence, and relatedness were functionally important to intrinsic motivation. These three features formed the basis for Basic Psychological Needs Theory (BPNT), which became one of the most important of the six mini-theories found in SDT (Ryan & Deci, 2019).

The six mini-theories of SDT have developed over time as researchers tested and challenged the broad theory. The growing body of empirical studies have also built a strong case for the relevance of SDT in work, school, healthcare, athletic, and therapeutic settings (Ryan & Deci, 2019). Cognitive Evaluation Theory (CET) was built through empirical study of intrinsic motivation. Ryan and Deci define intrinsic motivation as “the spontaneous propensity of people to take interest in their inner and outer worlds in an attempt to engage, interact, master, and understand (2019)”. The theory developed as researchers tried to account for differences and
changes in intrinsic motivation. Based on research findings, CET theorizes that factors in social
environments that add or detract from a person’s sense of autonomy will increase or diminish
intrinsic motivation. For example, potential detractors from intrinsic motivation in the education
sector could be controlled praise, punishments or threats of punishments, negative feedback, and
certain grading and evaluation systems. Conversely, positive feedback has been linked to
increased, or enhanced, intrinsic motivation (Ryan & Deci, 2019). CET has also helped illustrate
how a supportive social environment and educational environment cannot only influence
motivation but also self-regulating behavior (Sansone & Tang, 2021).

Organismic Integration Theory (OIT) focuses primarily on extrinsic motivation. Ryan
and Deci define extrinsic motivation as concerned with “all activities aimed at achieving
outcomes separable from the behavior itself (2019)”. External pressures or rewards could
extrinsically motivate a person. If the person enjoys a task, they may internalize the motivation
and find inherent worth in it. The role of parents is also emphasized in this theory (Ryan & Deci,
2019).

By far the most impactful mini theory is Basic Psychological Needs Theory (BPNT).
This mini-theory is predicated on the notion that humans are “growth-oriented” individuals that
are goal-driven (Masland, 2021). BPNT is concerned with how to address human wellness and
thriving. In order to support wellness and thriving, BPNT identifies the three basic
psychological needs as autonomy, competence, and relatedness (Ryan & Deci, 2019). These
needs are essential for the growth and proper adjustment of the self (Vansteenkiste, Ryan &
Soenens, 2020). Autonomy can be defined as the experience of volition and willingness as
defined by James and Wundt. When this need is met, an individual is satisfied that their
thoughts and actions are their choice and are authentic to them. When the need is denied,
individuals can feel pushed and coerced, which can lead to conflict. Competence refers to acquiring both experience and mastery. When this need is met individuals are engaged in activities that apply and extend their learning and skills. The opposite would be a sense of failure or inadequacy. Relatedness describes “the experience of warmth, bonding, and care (Vansteenkiste, Ryan & Soenens, 2020)”. Individuals have a deep desire for support and for a feeling of security (Masland, 2021). Satisfaction of this need comes through a sense of belonging, connection, and trust with others, the lack of which leads to need-denial. The concept of self-esteem is not considered a basic need because it can be intertwined with autonomy, competence, and relatedness. It is important to note that these three needs are not a ‘one-way street.’ They can influence an individual or be an antecedent to an individual’s actions (Vansteenkiste, Ryan & Soenens, 2020).

The satisfaction of these three needs also increases intrinsic motivation and internalization. The large body of international research has confirmed these three needs stretch across cultural contexts. Consequently, these basic psychological needs are considered *etic universals*, or “attributes or processes that can be empirically shown to have cross-cultural significance (Ryan & Deci, 2019)”. These needs are considered inherent, which means that therefore they should apply universally (Vansteenkiste, Ryan & Soenens, 2020). There are some variations by culture. For example, while autonomy is a universal need, the ways the need is met can vary. Studying cultural contexts for needs satisfaction is a growing area of study (Ryan & Deci, 2019).

The three other mini-theories are built from CET, OIT, and BPNT. Causality Orientations Theory (COT) focuses on the different social conditions that can motivate people differently. In this theory those with an autonomy orientation are proactive about pursuing
interests and growth opportunities. Goal Content Theory (GCT) postulates that different goals result in different levels of need-satisfaction. Those that pursue intrinsic goals have been found to have a greater likelihood of having their basic needs met and a stronger experience of well-being. Relationship Motivation Theory (RMT) explains that autonomy and relatedness are not contradictory as other psychologists have theorized, but that they complement each other. High quality relationships in fact share mutual autonomy (Ryan & Deci, 2019).

SDT and Education

A major driver of SDT research, and BPNT in particular, is the excitement around being able to apply building the basic psychological needs of autonomy, competence to work in bettering society. Areas like parenting, healthcare, business, sports, and therapy could benefit from SDT (Ryan & Deci, 2019). One area that has significantly gained from SDT and BPNT is the field of education. Ryan and Deci are quick to note that schools regularly use external strategies like rewards system, grading, punishment, monitoring, and evaluation to foster student motivation. They argue this in fact hinders motivation because learning is a chore instead of a joy. Students are pressured into learning instead of seeking it and inwardly valuing it. Policies exacerbate this problem by creating accountability measures that pressure schools to perform. This is in contrast to schools instead emphasizing building intrinsic motivation in students. For example, small children are intrinsically motivated to engage in play and other forms of active learning. With proper teaching, external motivators can be assimilated by students. Students can also be taught the importance of socially-accepted values and behaviors and internalize, or integrate them. These concepts of building intrinsic motivation and internalization (and integration) in students are key hallmarks of SDT research and recommendations for schools.
When these concepts are realized in schools, educators have the ability to address student learning, student performance, and overall well-being more effectively (Ryan & Deci, 2016).

Basic Psychological Needs Theory plays an important role in SDT’s application to education. Under BPNT, people have the basic needs of autonomy, competence and relatedness. The business of education is developing the self, and so nurturing the development of these three basic needs is of great importance to education researchers and psychologists. One of the most important elements that help build autonomy, for example, is giving students choices. This is not referring to arbitrary choices, as these would not necessarily build autonomy. Rather, when teachers take student interests into account, students can see their voice in the classroom and can relate classroom activities and social norms to something they truly want to do. This type of supportive social context is helpful for learning. This supportive social context, coupled with meaningful feedback by teachers, can lead students to see themselves as more competent than before. This in turn builds higher self-esteem (Ryan & Deci, 2016). The classroom climate, or environment, can be categorized by students as “accepting, supportive, and encouraging (Ryan & Deci, 2016)” . This environment has been found to be the opposite of what can be found in many classroom environments, where the teacher is controlling and manipulates behavior through rewards and evaluations. Relatedness is tangentially related to autonomy and competence in the classroom in this context, as students are more likely to listen to the feedback and instruction by teachers to whom they feel connected. Teachers will demonstrate an ability to relate to the students from their perspectives, including when they set and explain limits (Ryan & Deci, 2016).

Not all forms of extrinsic motivation are bad in SDT. Certain types of extrinsic regulators actually help build up the self. Identified regulation happens when a student identifies
that a behavior is helpful, they will accept that behavior and internalize it. Integrated regulation happens when students not only identify the behavior as helpful, but align the behavior as a demonstration of their core values. Teachers can help these processes occur by being explicit about the social value of certain behaviors and what is being asked of students in the classroom. Indeed, students still need structure, which comes from clear expectations and goals with a path for achieving those goals that all can access. The feedback, help, and consideration of students builds up autonomy and competence without sacrificing ‘control’ of the classroom (Ryan & Deci, 2016). Feedback that is helpful to building autonomy and competence emphasizes how students can have more successful results and grow toward mastery (Niemiec & Ryan, 2009). This would be in contrast to what typically happens in classrooms, where teachers respond to failure, especially behaviorally, with more strict controls. This controlling environment can be especially damaging to at-risk students (Ryan & Deci, 2016).

Similar to how SDT has related to other fields, applying the principles of SDT and the mini-model of BPNT has been found to apply across cultural contexts. Whether a culture is collectivist or individualist, students still demonstrate a stronger sense of self when the basic needs of autonomy, competence and relatedness are addressed (Ryan & Deci, 2016). This autonomous motivation by students has been shown to increase the student’s quality of learning and engagement (Ryan & Deci, 2019). The implications of this include the need for school systems to include strategies that increase these measures in teacher training while also finding ways to build professional autonomy in the teachers themselves (Ryan & Deci, 2016). The presence of autonomy-supportive administrators and principals has been linked to teachers that have a stronger intrinsic motivation and an autonomous motivation to learn new techniques themselves. Schools have to also resist the external pressures to focus on outcomes and instead
focus on the process of learning. Schools have to believe that the outcomes of strong learners who have measurable growth will happen by building intrinsic motivation and by creating an environment that is a place students want to be (Ryan & Deci, 2019).

Researchers have begun to tackle the pedagogy needed by teachers in order to help students develop a stronger sense of self. When reflecting on teaching during the pandemic, Masland (2021) argued that teachers need to build “resilient pedagogy,” whereby through intrinsic motivation students are able to navigate difficult circumstances. Masland was interested in how motivation, or the internal drive toward accomplishing goals, was evidenced by engagement, which was defined as “evidence that an individual has the motivation to move toward a goal.” Masland described three types of engagement that can be fostered through the use of SDT and addressing the three basic needs of BPNT. The first, behavioral engagement, is participation in the learning environment that can be identified by behaviors like persistence. Cognitive engagement, which can also be considered self-regulation, is evidenced by students exhibiting higher-order thinking. The third, emotional engagement, is the presence of interest, value, and self-initiated curiosity in the classroom. Teachers can create an environment that facilitates these types of engagement through building supportive relationships between the teacher and the student and between students. This is not an easy task. Teachers have to see each student as their own complex individual and plan for different situations and outcomes instead of simply trying to control the environment. This is true as classrooms across the world continue to become more and more diverse. Individualized instruction and feedback are consequently of paramount importance if the three basic needs are going to be met.

Masland (2021) postulated that teachers have to create learning activities that allow for authentic student engagement with the teacher and with each other. Student-to-student
interaction has been highly predictive of success because of the sense of relatedness it creates through belonging. Marginalized students in particular benefit by decreasing their anonymity, validating their own experiences, and giving them cooperative learning experiences with peers. Students who gain a sense of relatedness to the teacher report that they believe the teacher genuinely likes them, cares about them, and respects them (Niemiec & Ryan, 2009).

Masland (2021) also drew some conclusions about the classroom structures and norms created by the teacher. Any structure that is created needs to have a clear explanation and rationale if students are to have internalized values that are demonstrated by increased engagement behaviors like “attention, effort, and participation.” Teachers can discover individual student interests through student surveys to gauge interests and feelings about the classroom or course, and then explicitly connect their responses to the classroom expectations and environment. Students have been shown to be more emotionally and behaviorally engaged over time when teachers engage students in this way.

**Research in Education Using Self-Determination Theory**

Research in the psychology of education using SDT, and BPNT in particular, has taken place throughout the world and continues to provide new insights into how motivation and the needs of autonomy, competence and relatedness can inform educational practices and policies. Much of this research has been done across a diverse sample of students all over the world, which can potentially reinforce its relevance to addressing discrepant disciplinary experiences for racial and cultural minority students across the United States. Some researchers have approached empirical studies from the broad SDT theory of intrinsic and extrinsic motivation. Others have conducted studies on student learning through the lens of one or more of the basic psychological needs. Still others have applied the concepts of SDT and BPNT to teachers and
educational practitioners themselves. And while new insights and confirmations of the theory abound, there are still many topics of education through the lens of SDT that still need to be pursued.

**General Research in Self-Determination Theory**

Some researchers have taken the general body of research to see if SDT theory’s emphasis on intrinsic motivation, internalization, and basic needs is relevant to education across cultural contexts. Howard and colleagues (2020) conducted a meta-analysis of 344 studies with 223,209 participants to explore motivation in SDT theory and if the outcomes matched the theory. Specifically, they were looking for correlations and connections to “well-being, goal orientation, and persistence-related student outcomes.” The body of research overwhelmingly confirmed that external motivators, or regulators, like complying to avoid punishment or earn rewards were linked to decreased well-being of students. Howard et. al made an important connection to educational policy at the highest levels by concluding that pursuit by students, schools, districts, counties, provinces, states and countries to raise achievement on narrow standardized tests is likely harmful to student well-being and educational success over the long-term.

Manganelli et al. (2021) wanted to see if the building student motivation relates to different socio-economic and immigrant backgrounds. This particular study involved over 25,000 Italian adolescents who were given questionnaires, but the question of SDT and BPNT’s connection to immigrants is extremely relevant in countries all over the world. The researchers were concerned with past findings that immigrant students reported lower psychological well-being, and students with lower socio-economic status (SES) were likely to have higher levels of psychological distress. Consistent with past studies, lower SES students reported lower levels of
intrinsic motivation. Mangenelli and colleagues argued that interventions that build basic psychological needs were needed to support disadvantaged and immigrant students in schools.

Other researchers have tried to see how other fields could inform and strengthen SDT assumptions and reinforce its accuracy and application to all fields, including education. Reeve and Lee (2018) approached SDT from a neuroscientific lens in order to see if there was an association with meeting psychological needs and striatum activity. Since this region that supports reward processing was active when intrinsic motivation was stimulated due to the meeting of basic psychological needs, Reeve and Lee concluded that the field of neuroscience can inform and reinforce the use of SDT in all fields, including education. Implications for students, whose brains are developing and being shaped, are clear and promising.

**Research in Education Regarding Autonomy and Competence**

Many empirical studies and meta-analyses by psychologists and other researchers have focused on the if and/or how the basic psychological needs of autonomy and competence are relevant in schools and if so, how they can be effectively addressed by educators. Flunger et al. (2020) tested whether four autonomy-building strategies had positive correlations with the motivation and engagement of 202 Dutch students over a three-week period by using grade measures and questionnaires. The four strategies were providing students choices, explaining rationales for activities and rules, helping students learn to accept frustration, and stimulating student interests. These strategies were associated with increased autonomy because they help students act in ways that connect to their values and goals. Flunger et. al was interested in whether student academic effort would increase, which was measured by the level of student engagement and ‘investment’ in their learning. The results were in clear support for all four strategies. Students’ motivation was positively correlated with each of the four strategies.
Additionally, Flunger et. al concluded that teachers are able to pull students back from withdrawing from a lesson by connecting activities to student interests.

Park, Holloway and Arendtsz (2012) followed a group of 94 9th grade students with a low SES and diverse ethnic backgrounds over a 3-year span to see what practices build the emotional engagement of students through meeting the needs of autonomy and competence, with some focus on relatedness. They had some interest in past research, where Black students were found to rate themselves as much more engaged than their teachers perceived them to be relative to how teachers rated other ethnic groups. Student emotional engagement was measured using the Experience Sampling Method and through likert-scale surveys given to students. Their results somewhat matched other studies they referenced. Black and Latinx students reported higher engagement than White students, with Black students being the highest. Unrelated to ethnicity, high-achieving students were reported to be less engaged. For all students, the more the environment was perceived to offer opportunities to build autonomy, competence and relatedness, the higher the reported levels of emotional engagement in students. Park, Holloway and Arendtsz concluded that teachers can increase emotional engagement by building the student’s autonomy. This can be done by dropping evaluative pressure, giving students more choices and how they can demonstrate their learning, and providing rationale for learning activities. They did make a note that their study demonstrated that students can be emotionally engaged but low achieving, which challenges conventional notions of engagement.

Cheon, Reeve and Vansteenkiste (2019) examined the potential benefits to students and teachers when classrooms are structured to support the building of autonomy. They tested the conclusions of SDT and BPNT that students will become more interested in learning and teachers would report greater efficacy and job satisfaction. This is an important lens to consider,
because teachers can feel caught between needing to provide structure while also trying to build autonomy. The key to Cheon, Reeve and Vansteenkiste is how teachers might be able to accomplish both. Questionnaires were given to 35 Korean P.E. teachers and their students after teachers had put into place structures that were considered autonomy-supportive by previous research. Teachers clearly explained the rationale for their structure and how students can make progress to attain goals in the class. Teachers gave feedback on student progress, which was supportive instead of controlling. Results of the measures indicated that students reported gains in interest, engagement, and increased autonomy in their P.E. classrooms. Teachers reported an increase in efficacy and the formation and reaching of intrinsic goals as well as an increase in well-being. This study is significant because it appears to be a win-win for teachers and students. An analysis of literature by Koth (2016) was also focused on classroom management and structure and its interplay with student motivation. Koth noted that teachers can document different ways students can and have earned points and give feedback. Teachers can help students make small choices and document their success while helping students see the connection these skills they are developing will have in the larger context. Student success builds their autonomy by internalizing behaviors that line up with the values and builds competence by having small gains toward certain skills.

**Research in Education Regarding Relatedness**

A significant body of research has focused on the relationship relatedness has on supporting the development of autonomy and competence and on the formation of well-being of students from homogenous and diverse backgrounds. Kunyu and colleagues (2021) studied the struggles of 439 immigrant students in Germany to adjust to schooling in Germany through the degree their basic psychological needs of autonomy, competence and relatedness were being
met. Through the use of relatedness scales, Kunyu et. al found that immigrant students who experienced discrimination and language frustrations had a lower sense of belonging. This lack of relatedness led to greater psychological distress. Conversely, students that reported stronger belonging with teachers showed less distress and higher academic adjustment. The implication of this research is that teachers can find ways to build belonging and address the needs of autonomy and competence to mitigate the language hassles and peer dynamics immigrants may experience. Bakadorova and Raufelder (2018) examined this role of the teacher student-relationship during early adolescence on the basic psychological need satisfaction of German students using scales. During this extremely formative time for students, students can easily fall into social anxiety, where they can easily have trouble navigating relationships with peers and the increase in the number of teachers can lead to less relatedness with teachers and students. Bakadorova and Raufelder found that peer-to-peer relationships were partially associated with the need of relatedness, but that the teacher-student relationship had an immediate and longitudinal correlation to relatedness and well-being. The importance of teachers showing emotional support to students during adolescence cannot be overstated. Booker (2018) found this again to be true when conducting interviews with middle school teachers to gain their perspectives on school belonging during early adolescence. Booker was interested in the withdrawal and difficulties adolescents can experience when their school experience does not line-up with their needs. In order to address the need of relatedness by facilitating a sense of belonging between students and teachers and students and students, teachers incorporated the interests and backgrounds of each of the students into their lessons. Teachers were very sensitive to race, class and SES, and gave a platform for students to bring their unique experiences into the classroom. This is especially important when the teachers do not match the demographics of
their students. The older White teachers knew they would need to work twice as hard to build relatedness and increase motivation in their students. Additionally, they were gentle when giving feedback and correction, and modeled the behaviors they wanted to see in their students.

The potential positive correlation between a sense of relatedness and engagement for students with behavior and social problems was studied by Olivier, Archambault and Dupree (2019). By using a path analysis of 583 5th and 6th grade Canadian students with profiled behavior and/or social problems, a connection with the level of relatedness they experience to teachers had a positive correlation to engagement to school. This was another important study that demonstrated addressing the three needs in BPNT transcend student learner profiles. Ruzek and colleagues (2017) reinforced the findings of the Olivier study analyzing the effects of teacher emotional support on the engagement and motivation of 960 adolescent students in 12 U.S. schools. Through students reporting on their perceived classroom experiences as a measure, students reported being more engaged in classrooms where teachers were emotionally supportive. Additionally, there was a correlation between autonomy and peer relatedness and academic growth in students. Ruzek et. al concluded that teachers should focus on encouragement and modeling supportive behavior while providing opportunities for peers to work cooperatively.

The damage of extrinsic goal pursuits versus intrinsic goal pursuits and how this affects racial and ethnic prejudice in schools was studied by Duriez and colleagues (2007). Duriez profiled those who are extrinsically motivated as less trustful, empathetic, and having more conflict in their relationships. They are more likely to see the world as “dog eat dog” and have an interest in seeing groups as hierarchical as groups compete for power. This type of disposition can increase discriminatory behavior toward minority groups. In contrast,
intrinsically motivated people are interested in their own growth, have higher empathy, and have more trustful relationships. This type of person is more accepting of other cultural groups. After studying the intrinsic and extrinsic goals and motivation of 17-18 year-olds in Belgium using questionnaires and scales, students with stronger extrinsic goal pursuits had a positive correlation to racial and ethnic prejudice. The onus of this study is that teachers, schools, and districts need to focus on building intrinsic motivation and goals if they hope to address discrimination and prejudice in society and build a sense of relatedness in students.

A qualitative research study on how relatedness and SDT connects to juvenile offenders and its implication for schools was completed in 2010 by Sander and colleagues. They based their study on past research that indicates student engagement, relationships, and discipline policies were the biggest predictors of juvenile delinquency. The relationships include with peers and with teachers. The teacher-student relationship is of particular importance in exacerbating or reducing deviant behavior. Adolescents in the juvenile justice system were interviewed in order to discuss why they perceive the school environment as negative. Students found that the everyday relationships with their teachers were very important, and that their own low engagement and lack of success in school disappointed them. Teachers that the students connected to showed caring behaviors like explaining homework, using a calm, pleasant tone, being fair, and praising student effort instead of simply trying to control students. Students also reported that they wanted teachers to help them, so while they were unmotivated, that was not the same as uninterested. Sander et. al concluded that schools need to take a preventionist perspective that emphasizes addressing the needs of autonomy, competence, and relatedness in all students as they show genuine care and connections with students. Theis, Sauerwein, and Fischer (2020) agreed with this sentiment and postulated that teachers should try to incorporate
student perspective whenever positively to address the need of social relatedness in students, including in the decision-making process for structures and assignments that affect them.

Katz and Assor (2006) examined the specific aspect of student choice, which is closely connected to the basic need of autonomy, as something that can be helped when teachers focus also and fostering their students’ sense of relatedness. The analysis of existing studies and literature led them to conclude that in order for choice to be effective in a multicultural classroom or educational setting, teachers need to build a sense of relatedness in their students with the teacher and each other. The best way to do this is to focus on peer acceptance and empathy for one another instead of competitive activities and comparing students to each other. This foundation allows for students to feel comfortable making choices about how they can demonstrate learning and explore new content. A sense of relatedness can also help lower anxiety about making choices, where one student might be anxious if what they choose to do in the classroom would alienate them from their peers. Benita, Levkovitz, and Roth (2016) studied the self-reported perception of empathy of seventh grade Israeli students and found that when students are able to show more prosocial behavior, teachers are able to build on positive goals for students and build a sense of relatedness in students.

**Research in Self-Determination Theory Specific to Educators**

There have been a number of studies that specifically examine the SDT’s relationship to teachers. Cheon, Reeve and Vansteenkiste (2019) focused on how teachers can build a supportive classroom that is structured while improving their interest in teaching and their self-efficacy. Ahn, Chiu, and Patrick (2021) studied teachers and 5th and 6th grade students from 35 South Korean classrooms by giving questionnaires to see if there was a correlation between teacher motivation and need satisfaction and student motivation and need satisfaction. They
were operating under the premise that teacher’s practices indirectly influence students because students interpret teacher actions related to their need-satisfaction. If a teacher is autonomously motivated then students should be as well. If students believe teachers are intrinsically motivated and motivated by what they do, then that should have a positive correlation with their own motivation. Their study confirmed the positive correlation between teachers and students. Interestingly, teacher autonomous motivation was linked to autonomy and competence in students but not necessarily their relatedness to teachers. Regardless, the impetus on school leaders to build teacher intrinsic motivation is clear.

Kelaher, Ferdinand, Paradies, and Warr (2018) were interested in exactly what the mental well-being benefits are to teachers when teachers are given professional development through the lens of SDT and the BPNT basic needs of autonomy, relatedness and competence. In this particular case, 246 Australian teachers took a pre and post-survey on their participation in an anti-racism intervention. The training was conducted using intergroup contact, where teachers would work through scenarios as equals. The training was found to be particularly beneficial to educators that identified as minority ethnicities and nationalities. This method of training could be particularly impactful for districts and educational policy leaders that are trying to attract and retain minority teachers. Sutter, Stickl Haugen, Campbell, and Tinstman Jones (2021) examined teacher motivation to participate in anti-bullying training and subsequently intervene in school bullying. To the researchers, connecting teachers to the value of this training so they are intrinsically motivated to help students is important because teachers play a pivotal role in building positive relationships and a healthy classroom climate and culture. The results of the survey given to 414 teachers in 46 States indicated that teachers were motivated to participate in the training when the value of the training was clear. Sutter et. al made an important connection
to the need for all teacher professional development to focus on the value in how it relates to their work and the opportunities for teachers to give feedback.

**Opportunities for Further Research**

Researchers have identified a number of areas where further research using SDT could benefit the field of education, particularly in the BPNT need of relatedness. Kunyu et. al (2021) suggested that further research should focus on what types of interventions by educators would help build belonging in immigrants. Benita, Levkovitz and Roth (2016) believe that future SDT research could explore what types of interventions with early adolescents would help them regulate their emotions and promote goal-directed behavior. Bakadorova and Raufelder (2017) suggested that future research regarding the teacher-student relationship could be explored by looking at what specific behaviors by teachers and between students can enhance relatedness. Examples the researchers give could include friendship and peer rejection, and the weight of the relationship with one teacher has on well-being and autonomous motivation. Similarly, Sander et. al (2010) referenced the need for future research to look at the teacher expectations of students and which types of expectations positively impact student achievement and the meeting of core needs. They also suggest future researchers can examine the delicate interplay of relationships between school personnel and students that become juvenile offenders.

Some of the research regarding SDT and educators is the type of professional development that will help teachers find intrinsic motivation to address their school structure and interactions with students so they can build a sense of relatedness and trust in their students. Research has shown that this in turn can create the conditions conducive to building autonomy and competence. There have been some studies that begin this conversation, like the Kelehar et. al (2018) study on anti-racism education in Australia. Giving teachers a chance to reflect on the
environment they create and discuss the conditions for improvement in a safe setting can help them build their own intrinsic motivation to increase the autonomy, competence, and relatedness of all of their students. For the purposes of this study, soliciting feedback from teachers regarding how they build autonomy from the SIS questionnaire can utilize this same type of practice to see how teachers can support racial and cultural minority students in the United States.

**Research Methods in Educational Settings using Self-Determination Theory**

The research focused on SDT in schools has largely used a combination of scales and questionnaires in order to find correlations. Given that many of the studies are being partially done using a set of questions or scales created just for the study, researchers have added other measures, including existing scales, in order to establish credibility for the tool(s) being used and to also explore the potential for trends related to BPNT.

A number of studies focused on using multiple scales for students. In order to capture effects of discrimination on the basic psychological needs of immigrant students, Kunyu and colleagues (2021) used a sense of relatedness scale combined with scales that accounted for autonomy and competence needs, psychological distress, and academic adjustment in order to look for multiple measures and multiple trends. When exploring if there was a potential correlation between intrinsic and extrinsic motivation and a proclivity toward racial and/or ethnic prejudice among students, Duriez and colleagues (2007) used agree/disagree Likert scale statements regarding intrinsic or extrinsic motivation. Students were also given a 14-question questionnaire meant to measure the level of Social Dominance Orientation that students may have and then compared the results of both studies measures. When studying if there was a relationship between integrative emotional regulation and prosocial behavior in students, Benita,
Leovitz and Roth (2017) gave students scales that measured a students regulation style, empathy, prosocial behavior, and their social desirability. Additionally, they added teacher reports of students’ prosocial behavior.

A few studies have taken numerous student scales and added an academic component when trying to establish a relationship between factors. When trying to establish if meeting the needs of related or competence positively correlated with academic engagement for students with behavior and/or social issues, Olivier, Archambault and Dupere (2020) had students complete a questionnaire at two different points in the school year that measured academic and social experiences at school. This was combined with multiple scales measuring competence, relatedness, and engagement. When examining the relationship between meeting the basic psychological needs of students, mastery of goals, and academic success, Theis, Sauerwein and Fischer (2020) correlated academic scores of students with a questionnaire that measured student autonomy, competence and relatedness. Flunger and colleagues (2021) were interested in the relationship between different autonomy-supportive teaching strategies and motivation and engagement in students. Students were given multiple scales as a pre and post-test assessing their degree of autonomy, their motivation, and their engagement. Teachers gave a number of academic measures that were used to correlate the results.

Other studies have added both teacher and student measurements to test their hypotheses. Bakadorova and Raufelder (2017) used student-to-student need satisfaction scales and teacher-to-student need satisfaction scales when measuring the role of each type of relationship in need satisfaction in early adolescence. Ruzek and colleagues (2016) established a correlation between teacher emotional support and student motivation by combining observations of teachers by the researchers with student scales measuring autonomy, competence, relatedness, behavioral
engagement, and master motivation. In a study measuring a similar correlation between student perceptions of teachers addressing their needs and student motivation, Ahn, Chiu and Patrick (2021) used Likert scale surveys from both teachers and students, and added a third correlation by using student grades. Specifically, teachers were given the *Teachers as Social Context Questionnaire* (TASQ), and students were given the *Basic Psychological Needs Scale* (BPNS).

In some studies using SDT in education, only teachers received any type of measurement tools by researchers. Kelaher and colleagues (2016) tested the Intergroup Contact Hypothesis with teachers completing an anti-racism intervention training by having them complete three measures. The first was an assessment of the skills learned in the training. The second was an assessment of mental health, and the third was a BPNS with three questions dedicated to each of the basic psychological needs of autonomy, competence, and relatedness. In order to assess teacher’s motivation to complete anti-bullying training and their intention to use it, Sutter and colleagues (2021) gave teachers a work-task motivation Likert scale that first measured the teachers’ intention to do a anti-bullying training again, and then the likelihood that they will use their training. Sutter et al. (2021) then correlated the results. Cheon, Reeve and Vansteenkiste (2019) correlated a number of measures when exploring the benefits to teachers structuring their classroom in an autonomy-supportive way. The team used the *Situations in Schools* (SIS) questionnaire, which will be explained in greater detail in Chapter 3. Additionally, the team used The *Learning Climate Questionnaire* (LCQ) and the *Teachers’ Sense of Efficacy Scale* (TSES) short form, and in this case did give a questionnaire to students.

There are a few important studies in education that used SDT that were qualitative in nature. Sander and colleagues (2010) interviewed a number of juvenile offenders that were housed in juvenile probation facilities and their families. They asked what students needed from
their teachers and shared their conclusions on autonomy, competence and relatedness while making connections to schools and teachers. Booker (2018) interviewed five teachers through the lens of SDT in order to establish the value they place on building a sense of belonging, or relatedness in their students.

There are some studies that fall outside the aforementioned techniques that are relevant to exploring SDT in education. Using a meta-analysis research technique, Howard and colleagues (2020) looked at 344 research samples and coded information. The team used R software to weight measures in order to correlate student learning outcomes with measures of student motivation. Park, Holloway and Arenditsz (2011) conducted a longitudinal study using the Longitudinal Experience Sampling method. They measured to what extent students were engaged over time and correlated their results to individual student variables.

Conclusion

Discrepancies in disciplinary experiences and outcomes for racial and cultural minorities has been documented since the first major national study by the Children’s Defense fund in 1975. While early studies focused mostly on the experiences of Black students, subsequent studies have demonstrated the outcomes are discrepant for other racial and cultural minorities, including immigrant students (Gordon, Piana, & Keleher, 2001; Fenning & Rose, 2007; Peguero & Shekarkhar, 2011; Morris & Perry, 2016; Bal, Betters-Bubon, & Fish, 2019; Peguero et al., 2015). Racial and cultural minority students can begin to feel negative effects on academic outcomes and school success from an early age, and can be over-identified as problematic students and/or students with emotional disabilities (Rocque & Paternoster, 2011; Okonofua & Eberhardt, 2015). In order to combat these trends, schools, districts, and policymakers have incorporated a number of practices. States have mandated the use of programs like PBIS and
Restorative Justice in order to reward positive behavior and focus on repairing the harm done instead of punishment (Sugai & Horner, 2009; Kline, 2016). ESSA made popular the idea of providing professional development for teachers in Culturally Responsive Teaching, which would address the issue of implicit bias (Lustick, 2016).

While these practices are effective and based on research, the lens of Self-Determination Theory provides another potential pathway to support students. Specifically, the Basic Psychological Needs of autonomy, competence, and relatedness offer a direction schools and districts can approach if they want to support racial and cultural minorities in the classroom while addressing discrepant discipline. At the higher education level, Isik et al. (2020) highlighted how medical students who were racial and/or cultural minorities in medical school experienced a crisis of motivation due to the lack of autonomy they had and the lack of relatedness they felt from their peers and teachers who operated from a different cultural background. Immigrant students have been found to face higher levels of psychological stress, and could potentially benefit greatly from attention being given to their needs of autonomy, competence and relatedness by their teachers and schools (Manganelli et al., 2021; Kunyu et al., 2021). Black students reported themselves more engaged than teachers perceived them to be in school in the Park, Holloway and Arendtsz (2012) study, which poses an interesting question as to whether teachers are truly aware of how they promote autonomy or not in their classrooms. Such a perspective could be monumentally important. Minority students that have found themselves on the school-to-prison pipeline have shared how important student perceptions of their environment, particularly with their peers and their teachers (Sander et al., 2010). Students in the juvenile corrections system reported that a positive relationship with the teacher especially would help reduce problematic classroom behaviors. Student engagement, relationships, and the
discipline policies are important predictors of student success in school and avoiding deviant behavior.

Some researchers have explored addressing the needs of autonomy, competence and relatedness in early adolescence. Bakadorova and Raufelder (2018) found that building a sense of relatedness to school during early adolescence is extremely important to longitudinal well-being of students in school. Booker (2018) interviewed a number of middle school teachers and found that the successful ones reported the benefits of addressing the basic needs of students to help them with engagement, connections, and motivation.

Racial and cultural minority students face a number of challenges related to their Basic Psychological needs of autonomy, competence, and relatedness in school. The likelihood of teachers to give consequences to their minority students correlated with the degree to which their classroom structures promote autonomy over structure, control, and chaos was examined in the following chapters of this dissertation.
CHAPTER 3

METHODS

The purpose of this study was to conduct exploratory research using the Situations In Schools (SIS) questionnaire to assess the degree to which teaching styles by teachers are autonomy-supportive and to correlate teaching styles of teachers to the frequency and types of discipline given to racial and cultural minority students by teachers. The SIS questionnaire was given to 135 teachers of early adolescent students (ages 11-14) at 15 middle schools in the suburbs of Chicago, Illinois. There were three research questions associated with this study. First, what are the trends and patterns in discipline in U.S. schools, particularly in the districts/schools being investigated in this study? The national trends have largely been addressed in Chapter 2. The school trends emerged from the results of the questionnaire.

The second research question asked what does the Situations in Schools (SIS) Questionnaire reveal about middle school teachers’ approach to their teaching style as it relates to autonomy support, structure, control and chaos? And to link questions one and two, the third question asked, “What correlation(s) can be found between the frequency and types of consequences given to rational and cultural minorities and the teaching styles of teachers on the SIS?” This chapter includes the following sections: research methodology, data source, data collection, data analysis, limitations and delimitations, and implications.

Research Methodology

In Chapter Two the researcher discussed how the majority of tools researchers used when applied Self-Determination Theory to education were quantitative tools that were a combination
of scales and questionnaires. The validity of these techniques have been largely accepted by the greater SDT research community, and the conclusions of these studies have influenced future research and future directions for education. The research methodology of the present study was quantitative in nature as well.

**Instrumentation**

Respondents were given a questionnaire that had two major parts. The first section of the questionnaire asked teachers to select the type and frequency of a disciplinary infraction given by that teacher for the 2021-2022 school-year. The teacher was asked to provide this information for different racial and cultural groups. The list of infractions came from the School Wide Information System (SWIS) program, which is an online tool developed used in conjunction with PBIS (Irvin et al., 2006). SWIS tracks disciplinary data so districts can make data-based decisions about providing positive behavior supports. This approach comes highly regarded by Skiba et al. (2011). Irvin et al. established that SWIS was a valuable system to use to make data-based decisions in educational settings in an empirical review (2006). Chitiyo and May (2017) have found that this type of schoolwide approach remains an effective way of using data to make decisions. Additionally the different infractions are meant not only to capture the spectrum of problematic behaviors that require discipline, but also to look for trends similar to what Huang (2018) found, which was that Black students faced discipline for more subjective infractions like “disrespect” compared to their White peers.

The second section of the survey was a questionnaire first used in a 2018 study by Aelterman and colleagues testing its validity. Using Self-Determination Theory, Aelterman and colleagues developed a 12 question vignette-based questionnaire that was later expanded to 15 vignettes. The tool is called the Situations in Schools (SIS) questionnaire. Aelterman et al. were
interested in the classroom teaching style, in particular the motivating styles, of teachers in the
categories of autonomy support, structure, control and chaos. The team hypothesized the
teaching was more nuanced than the strict categories by other researchers in SDT. They created
a framework that included four major areas: autonomy support, structure, control and chaos. In
the autonomy supportive teaching style by the teacher is to seek to understand and then nurture
the interest of students. The sub-areas of autonomy support are participative, which refers to
engaging students in a dialogue, and attuning, which is connecting student interests to the
learning to make tasks more enjoyable. In the structure teaching style, a teacher wants to be able
to guide students and give strategies to help students. The communication of these strategies is
the sub-area of clarifying. This gives students the feeling of competence to complete the
learning task, which is another one of the Basic Psychological Needs. In the control teaching
style, the teacher exerts pressure so the student will meet the agenda and requirements of the
teacher. This style has the subareas of demanding and domineering. Demanding refers to the
teacher communicating with commanding language to follow expectations with no deviations
allowed. Domineering is when a teacher uses guilt and shame to suppress students so they will
follow the teacher. The chaos teaching style is very laissez faire. In the sub-area of abandoning,
the teacher gives up on students and students do whatever they want. The sub-area of awaiting
refers to the teacher waiting to see if the students will take the initiative and then watches to see
if things take their course. Figure 1 shows a visual of the four styles.
The SIS allows for teachers to respond to a situation with more than one of the four styles on a Likert-scale system in authentic teaching situations, which supports their hypothesis that teaching styles are more nuanced. This is indeed what their study found. Using multiple measures of validity, Aelterman et al. (2018) concluded that the tool was valid. Aelterman et al. believe that the results gained from the SIS reinforce the notion that teachers should focus on an autonomy supportive approach and to some degree a structured approach to produce the most adaptive student outcomes as opposed to controlling or chaos as teaching styles, which produced the opposite outcomes. Autonomy and Structure are linked because teachers can introduce structures in an autonomy-supportive way. When a teacher is controlling, they tend to focus on the misbehavior of the learner and will use discipline to address behaviors, which is another reason why pairing the SWIS data with the SIS is important.
SIS study by Aeltermann and colleagues took place in Flanders, Belgium with secondary school teachers and students. The SIS has not been used in a published study in the United States.

Variable Measurement

The variables measured in this quantitative study included the four different teaching styles found in the SIS (Autonomy, Structure, Control, Chaos), the race and/or culture of the students disciplined, the type of discipline the teachers of given to each subgroup, and the frequency of disciplinary types given to each subgroup. The researcher also made observations about the discipline variable of the percentage of students of a certain race in a school compared to the percentage of referrals given by the teachers to that demographic. Class size and teacher job assignment was gathered but was not used due to their being 38 combinations of teacher assignments and class sizes for a smaller sample size of 118 teachers.

Site Selection Criteria

The researcher used the Illinois Interactive Report Card (IIRC) website to pick schools with different balances of student demographics and any prior contacts or relationships with potential schools. The Illinois Resource Center categorizes student demographics of schools as White, Black, Hispanic, Asian, American Indian, Pacific Islander, and Two or More. The IIRC also reports on the number and percentage of students that are English Language Learners (ELL). The researcher invited 22 middle schools by contacting the building Principals. The middle schools were selected because of their suburban Chicago location, differences in racial and cultural demographics, and their status as a public school. Exclusionary criteria included schools that were within the Chicago City limits and schools that were private, parochial, or Charter. A few of the sites needed the researcher to contact the district administration before
agreeing to disseminate the study. Out of the 22 schools invited, 12 school Principals elected to have their schools participate in the study.

**Procedure**

The researcher first identified 22 schools in the suburbs whose Principals the researchers knew or were referred to the researcher by a colleague. The Principals were sent a scripted email invitation to participate in the study. As an incentive, Principals who secured the participation of half of their teaching staff would be sent a breakdown of the different teaching styles in their building without identifying information. Twelve Principals responded in the affirmative and were sent a script to share with teachers. After 7-10 days Principals were sent the script for teachers again as a reminder. The survey was closed a week after the last school received their reminder email.

Teachers in the schools that elected to participate in the study clicked the survey link from the survey through Northern Illinois University that was embedded in the scripted email. The quantitative tool used was a questionnaire entitled, *Classroom Management and Teaching Style Questionnaire*, with two major parts. The order of the two sections was randomized in the study based on the recommendation of the Dissertation Committee. Before beginning the first part, teachers read about the purpose of the study and that no identifiers will be used outside of the school the respondent comes from and then consented to their answers being used in research through Northern Illinois University. Teachers selected which school they were from, and they gave their average class size for their own schedule.

Part one grouped disciplinary infractions based on the SWIS data measurement tool’s categories. In the interest of avoiding redundancy, the researcher combined physical aggression and fighting, and tobacco, drug and alcohol offenses. All incident categories were already
combined in the SWIS system (pbisapps.org). The teacher was asked to rate, to the best of their ability, the amount of times they have issued a teacher-directed consequence or an Office Disciplinary Referral (ODR) for students in each of the racial and/or cultural categories. The categories of race and/or culture were selected from the demographics used by the IIRC (iirc.niu.edu). In order to help teachers understand what would constitute teacher-directed discipline or an ODR, an explanation was given for each at the beginning of the section.

Part two was the 15-vinette Situations in Schools (SIS) questionnaire developed by Aelterman and colleagues (2018). The background and composition of this tool is described in greater detail in the research methodology section of this chapter. The section has an introduction provided by Aelterman and colleagues that can be found with the tool on johnmarshallreeve.org. The introduction explains that 15 common teaching situations will be given with four responses to what a teacher might do in the situation. The respondents are unaware that each possible action corresponds to the categories of autonomy, control, structure, or chaos. Teachers rated whether that type of response describes them on a scale of one to seven. A lower score would indicate the action does not describe them at all, a middle school would indicate it somewhat describes them, and a higher score would indicate that the scenario would describe the teacher extremely well.

**Participants**

Participants included 118 middle school teachers from 12 public middle schools in the Chicago suburbs of Illinois. Purposive sampling was used. See Table 1 for participant characteristics.
Table 1. Participant Characteristics

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<tr>
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<tr>
<td>Asian American</td>
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<tr>
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Table 2. Participants in each School

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</tr>
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</table>
The middle schools selected for the study were middle schools in northern Illinois located primarily in the suburbs of Chicago. A total of 12 school were represented among the survey respondents.

Because the number of respondents that were non-white was so low, data was not analyzed regarding teacher racial demographics with regard to any of the research questions.

**Data Analysis**

**Demographic Data and Disciplinary Data**

In order to answer the trends portion for the 12 schools in the study for research question one, data from the IIRC was used to analyze any trends in the middle schools in the study compared to their overall demographics related to school discipline. The researcher made observations by individual racial demographics and for EL students. Only schools in which 15% of eligible staff took the survey were analyzed for the first research question. Out of the 12 schools that participated in the study, 5 schools met the criteria. The researcher represented the data in a table for the 5 schools and described the discrepancies observed.

Data was gathered from the *Disciplinary Frequency* portion of the questionnaire by totaling occurrences for discipline for each of the subgroups. This data was gathered from each individual teacher that filled out this section of the questionnaire. The number of occurrences were inputted into SPSS as individual numbers for race and culture, and then one combined group for Black, Hispanic, Native American and Multi-Racial because the literature indicates these groups have historically faced the highest discrepancies in school discipline compared to their White peers. A second combined group was created that included Asian and Pacific Islander, and a third group was created that included all students. The ELL population disciplinary numbers for each school was its own section. The researcher measured the
frequency of different types of consequences to different subgroups in order to determine if there were patterns consistent with the research done by Huang (2018). In order to make the data more friendly to SPSS, teacher and student demographic data were assigned numbers under each category.

In the original study using the SIS by Aelterman and colleagues (2018), they measured the SIS from a number of angles as they determined its validity. The degree to which each teacher favors the teaching style of autonomy, structure, control, or chaos in their teaching was done using the scoring system Aelterman et al. (2018) developed. Each of the 15 vignettes gives a scenario with four possible actions by the teacher. Each action goes with one of the four teaching styles, and the order changes for each question. The researcher added up the total points for each category for each of the four categories for each individual teacher (Aelterman et al., Supplemental Material, 2018).

The researcher was looking for a correlation between disciplinary frequency for each racial and cultural subgroup and the teaching style of the teacher in order to answer the third research question. The researcher examined if there is a negative correlation between disciplinary occurrences for racial and cultural minority students and the score for teachers in the teaching styles of autonomy and structure. Each teaching style was explored individually, as the structure style lends itself to the Basic Psychological Need of competence. The hypothesis was that there would be a negative correlation between the frequency of disciplinary occurrences of a teacher and the overall score in autonomy and structure for a teacher (see Figure 2).

The researcher used the Pearson product-moment correlation, or Pearson’s r, which measures the strength and direction of the relationship amongst two variables. This is an appropriate measure because it produces a straight-line relationship when graphed (Carreras,
The researcher analyzed the data for each of the racial and cultural subgroups to report correlations.

In order to analyze trends related to each school, each teacher was coded by school into SPSS. Overall correlations between the school average teaching style and discipline was reported.

Figure 2: Conceptual Framework for This Dissertation

Tables Used

To ensure data integrity and validation, the Statistics table for each of the major teacher demographics and information was run. A frequency table was run to validate how many respondents existed by each school.
For research question one, a simple chart was used for the 5 schools that have enough respondents showing disciplinary percentages by race and total percentage of race by school population. Discrepancies were highlighted and noted. The total staff able to take the survey versus how many took the survey was reported as well.

For research question two, Descriptive Statistics were run for the minimum, maximum, mean, and standard deviation for the four teaching styles of autonomy, control, structure, and chaos.

For research question three, a table was created measuring correlation between teaching styles and the aforementioned individual and grouped demographics, including EL students. This data was analyzed for the entire staff, and significance was considered using a two-tailed approach at both the .01 and .05 level. An additional correlative table was run to see if there were any correlations between the four teaching styles.
CHAPTER 4

RESULTS

The present study was comprised of three research questions. Data were analyzed by research question, and the results are presented below.

Research Question 1

*What are the trends and patterns in discipline in U.S. schools, particularly in the schools being investigated in this study?*

The first part of this question, which can be considered Research Question 1a, discusses trends in U.S. schools. Question 1a was addressed in the literature review. Racial and cultural minority students face discrepant disciplinary outcomes in schools across the United States, and this has remained a trend since data was first tracked in 1975. Results were first reported on the significant disciplinary discrepancies between White and Black students. The early measurable data was primarily regarding corporal punishment and suspension initially (Kaeser, 1979; Wu et al., 1980). Contemporary research in the United States has demonstrated there are disciplinary discrepancies for Native American, immigrant, and Latinx students (Peguero & Shekarkhar, 2011; Morris & Perry, 2016). These discrepancies exist despite multiple studies that demonstrated Racial and cultural minority groups do not misbehave more than their White peers (Peguero et al., 2015).

Research Question 1b

Although participants from 12 different middle schools participated in the study, most of the schools had low participation from the staff. Because of this, the researcher determined that
only schools with 15% of eligible staff participating would be analyzed for trends and patterns regarding discipline in their schools. The 15% threshold was chosen by the researcher because the school with the 15% threshold had a large number of eligible staff and therefore a larger number of staff that were able to reach the 15% threshold. The same rule held for schools that had approximately 20-35% of the eligible staff respond to the survey. Of the 12 schools, five schools had at least 15% of their eligible staff take place in the study. Discrepancies in the percentage of students disciplined versus the percentage the student racial or ELL demographic represented in the school is denoted in bold in Table 3. Each of the 5 schools had discrepancies present, but they varied by building. Disciplinary occurrences were either teacher or administrator-given and could take a variety of forms, including suspension, detention, etc.

School 1 had by far the highest level of staff participation with 89% of staff responding to the survey. School 1 also had the most categories with discrepant data noted. White students made-up 16.7% of the student body, but received 26.7% of the discipline reported. Black students made up 3.4% of the population and received 12% of the discipline reported. Native Americans comprised less than 1% of the student body and had 4% of the disciplinary occurrences assigned to them. Conversely, EL students made up 29.9% of the population and only had 8% of all disciplinary occurrences.

School 2 was comprised of 68.7% White students, but this group only had 7% of the disciplinary occurrences reported. Hispanic students made-up 15.1% of the student body and had 32% of disciplinary occurrences. EL students were 4.4% of the population and were subject to 33% of the disciplinary occurrences reported. 32% of eligible staff participated in the survey. Schools 5 and 6 were two schools in the same district. School 5 had 15% of eligible staff participate in the survey. The sole discrepant category for School 5 was Asian/Pacific Islander.
This group comprised 20.4% of the population, but only had 3% of the disciplinary occurrences. School number 6, which had a 23% staff participation rate, had two categories of discrepant discipline. Asian/Pacific Islanders comprised 46.1% of the student population and had only 9% of the disciplinary occurrences. EL students represented 25.9% of the student population and had only 10% of the disciplinary occurrences.

School 9 had a 34% staff participation rate on the survey and two categories of discrepant discipline. Hispanic students were 54.2% of the student body and had only 37% of the disciplinary occurrences. Conversely, Multi-Racial students 2.9% of the student population, but had 15% of the disciplinary occurrences.

### Table 3. Disciplinary Occurrence Data by Demographic Per School

<table>
<thead>
<tr>
<th>School #</th>
<th>%White Students</th>
<th># White Disciplinary Occurrences</th>
<th>% of Total Disciplinary Occurrences</th>
<th>%Black Students</th>
<th># Black Disciplinary Occurrences</th>
<th>% of Total Disciplinary Occurrences</th>
<th>%Hispanic Students</th>
<th>#Hispanic Disciplinary Occurrences</th>
<th>% of Total Disciplinary Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16.7</td>
<td>151</td>
<td>26</td>
<td>3.4</td>
<td>71</td>
<td>12</td>
<td>68.7</td>
<td>327</td>
<td>56</td>
</tr>
<tr>
<td>2</td>
<td>68</td>
<td>15</td>
<td>7</td>
<td>1.5</td>
<td>9</td>
<td>4</td>
<td>15.1</td>
<td>73</td>
<td>32</td>
</tr>
<tr>
<td>5</td>
<td>47.1</td>
<td>112</td>
<td>55</td>
<td>3.3</td>
<td>15</td>
<td>7</td>
<td>24.2</td>
<td>62</td>
<td>31</td>
</tr>
<tr>
<td>6</td>
<td>30.2</td>
<td>133</td>
<td>57</td>
<td>5.7</td>
<td>14</td>
<td>6</td>
<td>13.5</td>
<td>53</td>
<td>23</td>
</tr>
<tr>
<td>9</td>
<td>33.9</td>
<td>114</td>
<td>30</td>
<td>4.8</td>
<td>65</td>
<td>17</td>
<td>54.2</td>
<td>140</td>
<td>37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School #</th>
<th>%Multiracial Students</th>
<th>#Multiracial Disciplinary Occurrences</th>
<th>% of Total Disciplinary Occurrences</th>
<th>%Native American Students</th>
<th>#NA Disciplinary Occurrences</th>
<th>% of Total Disciplinary Occurrences</th>
<th>%Asian/Pacific Islander Students</th>
<th>#Asian/PI Disciplinary Occurrences</th>
<th>% of Total Disciplinary Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.1</td>
<td>13</td>
<td>2</td>
<td>0</td>
<td>22</td>
<td>4</td>
<td>7.1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>5.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9.7</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>4.6</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>20.4</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>3.7</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>6</td>
<td>3</td>
<td>46.1</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>2.9</td>
<td>59</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3.9</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School #</th>
<th>%English-Language Learners (ELL)</th>
<th>#ELL Disciplinary Occurrences</th>
<th>% of Total Disciplinary Occurrences</th>
<th># of Eligible Staff</th>
<th># of Responses</th>
<th>% of Staff Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29.9</td>
<td>48</td>
<td>8</td>
<td>28</td>
<td>25</td>
<td>89</td>
</tr>
<tr>
<td>2</td>
<td>4.4</td>
<td>76</td>
<td>33</td>
<td>47</td>
<td>15</td>
<td>32</td>
</tr>
<tr>
<td>5</td>
<td>13.1</td>
<td>39</td>
<td>19</td>
<td>60</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>25.9</td>
<td>23</td>
<td>10</td>
<td>62</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>9</td>
<td>19.1</td>
<td>84</td>
<td>22</td>
<td>41</td>
<td>14</td>
<td>34</td>
</tr>
</tbody>
</table>
Research Question 2

What does the Situations in Schools (SIS) Questionnaire reveal about middle school teachers’ approach to their teaching style as it relates to autonomy support, structure, control and chaos? In order to answer this question, the average of all staff respondents was measured as a descriptive statistic. Additionally, exploratory analyses were done to check for correlations between any of the teaching styles.

Descriptive Statistics of Teaching Styles

The Situations in Schools (SIS) survey created by Aelterman and colleagues (2019) was analyzed for descriptive statistics. The scale for the responses ranged from one to seven, with a one indicating the teacher was unlikely to use this style and a seven indicating the teacher was highly likely to use this style. Means scores were calculated and are presented below. A higher mean score means the teachers sampled were more likely to use the teaching style across a variety of contexts. The overall average for the 118 valid responses was calculated and is displayed in Table 4.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>s.d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>118</td>
<td>3.33</td>
<td>6.86</td>
<td>5.47</td>
<td>.73</td>
</tr>
<tr>
<td>Controlling</td>
<td>118</td>
<td>1.00</td>
<td>4.60</td>
<td>2.38</td>
<td>.94</td>
</tr>
<tr>
<td>Structure</td>
<td>118</td>
<td>3.73</td>
<td>7.00</td>
<td>5.94</td>
<td>.68</td>
</tr>
<tr>
<td>Chaos</td>
<td>118</td>
<td>1.06</td>
<td>4.00</td>
<td>2.06</td>
<td>.65</td>
</tr>
</tbody>
</table>

The teaching style of Chaos was the least common teaching style, with a mean of 2.06 (.65). Control was the second least common teaching style, with an average of 2.39 (.94).
On the other end of the spectrum were Autonomy and Structure. Autonomy as a teaching style had an average of 5.48 (.74). The teaching style of Structure was the most endorsed teaching style by respondents with a mean of 5.94 (.69).

**Exploratory Follow-Up Analyses for Research Question Two**

The researcher decided to investigate the correlation between each of the teaching styles using Pearson’s r. Correlations were examined using a two-tailed approach. The corrections are in Table 5.

<table>
<thead>
<tr>
<th></th>
<th>Autonomy Total</th>
<th>Controlling Total</th>
<th>Structure Total</th>
<th>Chaos Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy Total</td>
<td>---</td>
<td>-.211*</td>
<td>.731**</td>
<td>-.175</td>
</tr>
<tr>
<td>Controlling Total</td>
<td>---</td>
<td>-.103</td>
<td>.516**</td>
<td></td>
</tr>
<tr>
<td>Structure Total</td>
<td>---</td>
<td>---</td>
<td>-.278**</td>
<td></td>
</tr>
<tr>
<td>Chaos Total</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

When comparing teaching styles, a number of correlations were considered significant at either the .05 level or the .01 level. Autonomy and Structure demonstrated a strong, positive correlation of .73. Conversely, Autonomy and Control had a negative correlation of -.21. Control and Chaos had a strong positive correlation of .52. Structure and Chaos had a significant negative of -.28.

**Research Question 3**

*What correlation(s) can be found between the frequency and types of consequences given to racial and cultural minorities and the teaching styles of teachers on the SIS?* Similar to the exploratory analyses, Pearson’s r was used and significance was considered using a two-tailed...
approach. Prior to running the correlations, all discipline variables were standardized by taking
the number of referrals for each category and dividing it by the average class size.

Correlations between the average scores for teaching styles of Autonomy, Structure,
Control and Chaos for individual teachers and the total disciplinary occurrences reported by the
teacher on the survey by individual Race or ELL status were first considered and are represented
in Table 6.

Table 6. Standardized Correlations Between Teaching Styles and Discipline Referrals by Race

<table>
<thead>
<tr>
<th></th>
<th>White Students</th>
<th>Black Students</th>
<th>Hispanic Students</th>
<th>Multi-racial Students</th>
<th>Native American Students</th>
<th>Asian-PI Students</th>
<th>ELL Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy Total</td>
<td>-.027</td>
<td>-.109</td>
<td>.055</td>
<td>.018</td>
<td>.113</td>
<td>.068</td>
<td>.87</td>
</tr>
<tr>
<td>Controlling Total</td>
<td>.101</td>
<td>.302*</td>
<td>.145</td>
<td>.172</td>
<td>.085</td>
<td>.085</td>
<td>-.018</td>
</tr>
<tr>
<td>Structure Total</td>
<td>-.138</td>
<td>-.006</td>
<td>-.029</td>
<td>-.091</td>
<td>.074</td>
<td>.047</td>
<td>-.093</td>
</tr>
<tr>
<td>Chaos Total</td>
<td>.144</td>
<td>.272*</td>
<td>.182</td>
<td>.222*</td>
<td>.034</td>
<td>.034</td>
<td>.046</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

There were no significant correlations between the teaching style of Autonomy or
Structure and any of the individual demographic groups. There were, however, correlations in
multiple individual demographic categories for Control and Chaos. There were significant
positive correlations at the .05 level between the average score for Control and the number of
disciplinary occurrences issued by the teacher for Black students. The average score for Chaos
for an individual teacher and their number of disciplinary occurrences were positive correlated at
the .05 level for Black and Multi-Racial students.

Because researchers like Huang (2018) indicate that disciplinary discrepancies exist for
multiple minorities, and because the teachers represented in the study worked in schools with
varying percentages of racial, cultural, and language groups, correlations between groups of Races and teaching styles were also measured using Pearson’s r. The results are found in Table 7.

Table 7. Standardized Correlations Between Teaching Styles and Discipline-Multiple Races

<table>
<thead>
<tr>
<th></th>
<th>Black, Hispanic, Multi-Racial, Native</th>
<th>Black, Hispanic, Multi-Racial, Native</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>American</td>
<td>American</td>
</tr>
<tr>
<td></td>
<td>Multi-Racial, Native</td>
<td>Multi-Racial, Native</td>
</tr>
<tr>
<td></td>
<td>Native</td>
<td>Native</td>
</tr>
<tr>
<td></td>
<td>Asian/Pacific Islander</td>
<td>Asian/Pacific Islander</td>
</tr>
<tr>
<td></td>
<td>White Total</td>
<td>White Total</td>
</tr>
<tr>
<td>Autonomy Total</td>
<td>.008</td>
<td>.021</td>
</tr>
<tr>
<td>Controlling Total</td>
<td>.246*</td>
<td>.230*</td>
</tr>
<tr>
<td>Structure Total</td>
<td>-.031</td>
<td>-.042</td>
</tr>
<tr>
<td>Chaos Total</td>
<td>.266**</td>
<td>.264*</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

When combining races, significant correlations were found for Controlling and Chaos teaching styles. The average score of the teaching style of Control as well as Chaos was positively correlated to the number of disciplinary occurrences for each of the three combinations of race.
CHAPTER 5
DISCUSSION

Review of Findings

The purpose of the present study was to conduct exploratory research on the Situations in Schools (SIS) Questionnaire in order to examine the degree to which participant teaching styles were autonomy-supportive, and to see if there were associations among teaching styles and the frequency of discipline given to students broken down by race. In order to pursue this purpose, the researcher examined three specific research questions. The findings are below are presented by research question.

National Trends and Local Trends

In order to understand the current landscape regarding the discipline of racial and cultural minorities, the researcher's first question was, *What are the trends and patterns in discipline in U.S. schools, particularly in the schools being investigated in this study?*

*National Trends*

National trends were largely determined by reviewing the current body of research and literature on the subject in Chapter Two. Discrepancies in discipline between Black and White students in U.S. schools was so significant during the first study of its kind by the Children’s Defense Fund in 1975 that the researchers said there was no need to analyze data to see the discrepancy. Kaeser (1979) and Wu et al. (1980) saw this trend apply to the discipline policies of corporal punishment and school suspensions. Research expanded later to include Latinx and Native American students, who also experienced discrepant expulsion and suspension numbers
As more districts began to keep data in the 2000’s, discrepancies continued to be present. Fenning and Rose (2007) found that Black and Latinx students were being labeled “potentially dangerous”, and Huang (2018) found that Black students were suspended twice as much as White students for similar infractions. Peguero and Shekarkhar (2011) found that Latinx students did not misbehave any more than their White classmates, but were punished more. Morris and Perry’s (2016) study of Kentucky school discipline data found the same discrepancies for Black and Latinx students. Conversely, Peguero and colleagues (2015) found that Asian students were less likely to have disciplinary occurrences than even white students. When considering the larger body of research, the national trends toward discrepant disciplinary outcomes for racial and cultural minorities has been clearly established.

**Localized Trends**

In order to address local trends, the researcher only used schools in which 15% of eligible staff responded to the study. This limited the local trends to those of five participating schools out of the 12 that were a part of the study, thus limiting generalizability. Even amongst the five schools used in this research, local trends varied widely by school. For example, for School 1 White and Black students experienced disciplinary occurrences disproportionately higher than their percentage of the school population. Conversely, English Language Learner (ELL) students, who are almost all Latinx, had significantly fewer referrals than their percentage of representation in the school population. In the case of School 1, Black students having higher disciplinary numbers matched the national trends and research, but White students having discrepantly high disciplinary numbers and Latinx ELL students having lower disciplinary numbers did not match the national trend. While the difference in ELL numbers is hard to
explain, the fact that School 1 had a significantly lower White population than the other schools could mean that a few students could skew the trends for White students in the building. The White population having a significantly lower percentage of school discipline relative to their percentage of the population was only present in School 2. School 2 had the opposite trend of School 1, where School 2 had the highest White population as a percentage of the school out of the 5 schools. This also could account for the skew that matched the national trends for White students. That same school had a lower population of ELL and Hispanic students, in which there is a heavy overlap in students. Both populations experienced disproportionately high disciplinary occurrences, which is in-line with the national trends.

Schools 5 and 6 each had one observed discrepancy in the data that was consistent with the trends noted by Peguero and colleagues (2015). Both schools had significantly lower percentages of disciplinary occurrences than the school population for Asian/Pacific Islander students, which has been supported by contemporary research. School 6 had a similar discrepancy as School 1, which was a significantly lower discipline rate for ELL students than their percentage of the student populations. This data would run counter to the national trends.

The last school, School 9, bucked the national trend by having significantly less disciplinary occurrences for Hispanic students than their percentage of the population, but had significantly higher disciplinary occurrence percentages for Multi-Racial students than their population in the school. However, given that the population of Multi-Racial students is was only 2.9%, 1 or 2 students can significantly skew the data.

Overall, it is difficult to make any conclusions about the local disciplinary trends, especially when considering their relation to the national trends. It would seem in the schools studied that Asian/Pacific Islander students are punished less than other students in some
contexts. The swing in all of the other demographics inconsistent with national trends leads the researcher to conclude that the local trends do not necessarily help the national conversation about discrepancy in discipline for racial and cultural minorities. It is possible that larger samples are needed to draw any generalizable conclusions. Conversely, for school-based conversations, only school data would be important to consider.

**Autonomy, Structure, Control and Chaos Among Teachers**

The second research question in the present study was, *What does the Situations in Schools (SIS) Questionnaire reveal about middle school teachers’ approach to their teaching style as it relates to autonomy support, structure, control and chaos?* The researcher was interested in how staff would describe their teaching styles through a variety of authentic situations. Self-Determination Theorists are interested in the value intrinsic motivation, internalization, and the meeting of basic needs has in education across all cultural context (Howard et al., 2020). The Basic Psychological Needs Theory (BPNT) has been studied more extensively in schools to see what effects and correlations can be found when schools and teachers build autonomy, competence and relatedness in their students and among themselves. Flunger and Colleagues (2020) found that teachers using teaching strategies that built student autonomy would increase student motivation. Park, Holloway and Arendtsz (2012) found that students whose teachers who used teaching strategies that addressed autonomy, competence and to some degree relatedness reported higher engagement than those whose teachers didn’t.

The researcher in this present study focused primarily on the teachers’ use of autonomy, and to some degree competence. The Autonomy score and Structure scores (*Structure* was related to competence by Aelterman and Colleagues in their 2018 study) were the two measures
closely connected to BPNT. The teaching style of Autonomy builds student belief that what they are doing is their choice and authentic to who they are (Ryan & Deci, 2019). When designing the SIS, Aelterman and colleagues (2018) defined an autonomous teaching style as one that nurtures “students’ interests, preferences and feelings in order to build this volition. On the SIS, Aelterman and colleagues (2018) would often phrase the autonomy teaching style choice for respondents with phrasing that suggested asking or inviting students to participate or share their perspective. For example, in the situation that asks how a teacher would work with nonresponsive students, the Autonomy option says (emphasis by the researcher), “Ask students to discuss the question with their neighbor and then invite them to share their answer within their groups.”

Structure as a teaching style was defined by Aelterman and colleagues (2018) as the teaching providing guidance and assistance so students build a sense of competence to be successful with learning tasks. Competence in turn is one of the basic psychological needs in BPNT. Competence is defined by acquiring both skills and mastery by Vansteenkiste, Ryan and Soenens (2020). On the SIS, Aelterman and colleagues (2018) would emphasis showing, teaching, and/or explaining to students for the Structure teaching style choices. For example, when discussing a situation where students require mediation, the need to teaching, help and explain comes out in the Structure choice that reads, “Re-explain the learning material step-by-step until they have mastered it better.”

In the present study, teachers rated themselves very highly in both Autonomy and Structure. Teachers averaged the highest scores in Structure, with Autonomy following closely behind. Both scores had a mean score above 5 on a scale of 1 to 7, which indicates a strong perception by the teachers that these styles of teaching are used across a variety of contexts.
Conversely, *Control* and *Chaos*, which are not strategies that address the BPNT in order to raise engagement and motivation, both had mean scores between 2 and 3 on a scale of 1 to 7. Each of these styles works against meeting the basic needs of students. Vansteenkiste and colleagues (2020) describe the absence of autonomy as the feeling of being pushed or coerced, which creates conflict. In the classroom, conflict can manifest as disciplinary occurrences. This idea of coercion closely relates to what Aelterman and colleagues (2018) described as the *Control* teaching style. With this style, in many ways the opposite of *Autonomy*, teachers impose their will on students irrespective of what the students think. An example would be with an arguing student on the SIS. The response for the *Control* style reads, “Tell them they should be ashamed of their behavior and that, if they continue, there will be sanctions.” Similarly, the *Chaos* teaching style runs counter to *Structure*. In this style, the teacher leaves students to try to figure things on their own, which can lead to confusion and frustration. The lack of the need of competence being met can be a sense of failure or incompetency in students (Vansteenkiste et al., 2020). Statements on the SIS surrounding the *Chaos* teaching style emphasize ignoring behaviors or students. For example, when dealing with students showing anxiety, the Chaos teaching style choice reads, “Don’t worry about it—let it pass on its own.”

Additionally, the researcher conducted exploratory research to correlate the teaching styles. When teachers used the style of *Autonomy* or *Structure*, the likelihood of using the style of Chaos and Control dropped. Also, the higher the mean score was for teachers in *Autonomy*, so was their score in *Structure*. These findings indicate that if teachers addressed autonomy and competence in the classroom, they were unlikely to also incorporate de-motivating teaching strategies.
These results could potentially indicate students across racial and cultural demographic groups would be more motivated and engaged in the classroom, but the third research question finding about correlations between discipline and teaching styles for different groups was largely underwhelming.

**Correlations Between Teaching Styles and Disciplinary Data**

The researcher hypothesized that there would be a negative correlation between a teacher’s use of teaching styles that addressed the basic psychological needs of students and the frequency of student disciplinary occurrences for different racial and cultural minority groups. In other words, if teachers had a higher mean score in Autonomy or Structure, they would have fewer disciplinary occurrences for racial and cultural minority students. This outcome would be consistent with the research that the students in these teachers’ classrooms would be more motivated and engaged. The research question to address this hypothesis was, *What correlation(s) can be found between the frequency and types of consequences given to racial and cultural minorities and the teaching styles of teachers on the SIS?*

The results from the correlative tables run for this study were largely underwhelming. There were no significant correlations, positive or negative, between Autonomy or Structure and Hispanic (Latinx) students, Multi-Racial students, Native American students, Asian/Pacific Islander students, or ELL students. Because a number of studies like Peguero et al. (2015) found that discrepancies existed for multiple groups of students, correlations were run for multiple combined categories of races. Again, there were no correlations between Autonomy or Structure and the frequency of disciplinary occurrences for any of the combined racial demographics of students.
There were, however, a couple of significant correlations found worth noting. There was a strong positive correlation between Control and disciplinary numbers for Black students, and a strong positive correlation between Chaos and disciplinary outcomes for Black and Multi-Racial students. The more teachers used each of these styles that do not address the basic psychological needs of students, more likely these demographics of students would be disciplined. At the least, the data would indicate that both Black and Multi-Racial students might suffer from the use of Controlling or Chaos style of teaching.

**Limitations and Future Directions**

There were a number of limitations to the present study that need to be noted. The subjects of the quantitative study were primarily teachers of students in grades 6-8, or ages 11-14. Additionally, the schools that participated in the study were midwestern suburban districts in the United States. The results of this study may be difficult to apply beyond this age group of students and the demographic in the geolocation used in the study.

Additionally, Aelterman and colleagues (2018) decided to give the SIS questionnaire to both teachers and students found in the same classroom. The researchers explained they took this step because they believed the teachers were overinflating their ratings of using the teaching styles of Autonomy and Structure while deflating their ratings of using Control and Chaos. In their 2018 study, Aelterman and colleagues found that students rated the teaching styles of Autonomy and Structure for their teachers much lower than the teachers did, and much higher than the teachers did in Control and Chaos. They used both measures in order to establish what they considered to be a more accurate average score. The present study did not survey students, which may explain why there were no strong negative correlations with Autonomy and Structure.
average scores of teachers, which were higher, and the frequency of disciplinary occurrences for more minority populations or combined minority populations.

The SIS questionnaire can be a useful tool for future researchers because it measures the basic psychological needs of autonomy and structure by using authentic teaching scenarios, which can provide more insight and credibility when measuring the effect each of these basic needs can have on students of all grade levels. Using the questionnaire across the entire pre-kindergarten to twelfth grade spectrum can also provide a picture of if there are certain ages that are more impacted by teaching styles that address autonomy and competence than others. To ensure a more accurate score, future researchers should give teachers and their students the same questionnaire and average the student and teacher scores.

**Implications**

**Theory Enhancement**

The findings of the study can contribute to the body of literature and research surrounding Self-Determination Theory because the findings can inform future researchers that motivating and demotivating styles cannot be as categorical as they have been made in prior research (Alterman et al., 2018). Rather, teachers can use a combination of strategies, in this case *Autonomy* and *Structure* (which leads to competence), in their teaching that are not simply autonomy-supportive and still have a bend toward more motivating styles of teaching. While no demographic had a strong correlation with disciplinary occurrences and *Autonomy* or *Structure*, the opposing structures of *Control* and *Chaos* and their strong positive correlations with discipline for Black and Multi-Racial students indicate there is some value in addressing autonomy and competence in the classroom.
Field Enhancement

Researchers have been sounding the alarm on racial discrepancies in school discipline since the Children’s Defense Fund Study of 1975. A number of solutions have been proposed and recently implemented, including PBIS, Restorative Practices, and Culturally Responsive Teaching. Since a positive correlation was found between Control and Chaos and frequency of their usage for some racial and cultural subgroups, researchers, districts, and policymakers should explore providing professional development for teachers in autonomy-supportive and competence-building strategies in order to develop basic psychological needs in students and curb the discrepancies in school discipline. Explicit connections between such strategies and positive outcomes for racial and cultural minorities can be made to staff during professional development. Special attention should be given to autonomy-building strategies, as teachers scored higher in the Structure (competence) teaching strategies and seem to have a stronger understanding of how to use this style. This research can build on the conclusions of studies by Manganelli et al (2021), Kunyu et al. (2021), Park, Holloway and Arendtsz (2012), Sander et al. (2010) that racial and cultural minority students benefit greatly from the meeting of their basic psychological needs. Also, given that this study focused on students in early adolescence, it can reinforce the conclusions of Bakadorova and Raufelder (2018), and Booker (2018).

Policy Enhancement

Policymakers at the local, State, and national level have shown a stronger interest in addressing racial and cultural discrepancies in the last 20 years. No Child Left Behind (NCLB) encouraged the universal use of Positive Behavioral Interventions and Supports (PBIS) (Sugai & Horner, 2009). Policy-makers and writers of State standards have emphasized the use of culturally responsive education, learning standards, and resources in the classroom (Lustick,
The Every Student Succeeds Act (ESSA) put pressure on schools to track their discipline data and have a concrete plan for addressing discrepancies (Illinois Education Association Fact Sheet, 2015). Some States like Illinois have written school policies that require restorative practices to be used to provide non-punitive, alternative approaches to discipline (Kline, 2016).

This present study can aid school policy at the local, State and national level by addressing how schools can help develop a strong sense of self in students. According to the Basic Psychological Needs Theory (BPNT), each student can greatly benefit from schools addressing their needs of autonomy, competence and relatedness (Katz & Assessor, 2006 Cheon, Reeve & Vansteenkiste, 2019). No two students and no two teachers are the same, and the styles, personalities, demographics and experiences of each student and teacher can vary greatly within the same classroom. With the pandemic and the return to school, policymakers have recognized the need for social-emotional learning (SEL) in students. The conclusions of this present study that teachers should avoid Control and Chaos as teaching styles should influence the writing and adoption of SEL standards that describe the need to address the whole child. The potential negative effects Control and Chaos can have on both Black and Multi-Racial students should be of particular interest to policymakers and standards-writers. Any standards should emphasize the need for students to build autonomy and competence over the course of their education. Once this policy is written, individual districts can begin to disaggregate the standards and provide professional development in teaching styles that address these needs.

**Conclusion**

Discrepant disciplinary outcomes for racial and cultural minorities have been a significant, ongoing problem in United States public schools since national research and reports were first published on the subject. Self-Determination Theory, and specifically Basic
Psychological Needs Theory, offers a different lens by emphasizing building the intrinsic motivation and engagement of all demographics of students in order to curb negative interactions with adults and negative associations with school. While the present study did not find the correlations that were hypothesized, the correlations between *Chaos* and *Control* and a higher frequency of disciplinary occurrences is significant. At the least, actions should be taken to help teachers avoid these teaching styles in their classrooms. These strategies can be replaced by emphasizing strategies that build autonomy, competence and relatedness.

The approach by Aelterman and colleagues in their 2018 study to introduce a measure that provides a more nuanced approach to assessing autonomy and to some degree competence as teaching styles by using real-life scenarios is a welcome addition to the research tools used by SDT researchers. The SIS is able to give a more holistic picture of a teacher’s style by addressing different elements of practice. But to ensure a balanced perspective, teachers and students should both be surveyed. This is especially important because it is the student’s perception and experience that ultimately matters.

Addressing discrepant disciplinary outcomes has thankfully been a point of emphasis in recent policy, legislation, and professional development for teachers. Districts, policymakers, and professional development providers would benefit greatly from emphasizing addressing the basic psychological needs of students when writing policy, designing professional development, and coaching teachers if stakeholder groups are serious about addressing these inequities.
REFERENCES


Olivier, E., Archambault, I., & Dupéré, V. (2020). Do needs for competence and relatedness mediate the risk of low engagement of students with behavior and social problem profiles?. *Learning and Individual Differences, 78*, 101842.


APPENDIX A

RESEARCH INSTRUMENT
Classroom Management and Teaching Style Questionnaire

Start of Block: Introduction

You are being invited to participate in a research study to find out about teaching styles and discipline practices in middle schools. This research is being conducted as part of a doctoral dissertation in Educational Leadership and Policy Studies. This research is being conducted by Peter Cunningham, Doctoral Candidate.

Key Information This is a voluntary research study on Illinois middle school teachers teaching style and discipline practices. This 15 minute study involves completion of an anonymous survey. Results will be used for a doctoral dissertation; there are no foreseeable risks of the study. Description of the Study

The purpose of the study is to gather information about Illinois middle school teachers and their self-perceptions of teaching style and discipline practices. If you agree to be in this study, you will be asked to complete a 15-minute survey where you answer questions about your own teaching practices and disciplinary practices.

Risks and Benefits

There are no foreseeable risks to this study. The benefits of participation are that the knowledge gained from this research will help the researchers build professional development for Illinois' middle school teachers. Study results may also be published in scientific journals and presented at scientific meetings.

Anonymity

This study is anonymous. We will not be collecting or retaining any information about your identity. The records of this study will be kept in a password protected file, and all electronic information will be coded and also secured using a password protected file. There will not be any information in any report we may publish that would make it possible to identify you.

Your Rights

The decision to participate in this study is entirely up to you. You may refuse to take part in the study at any time. Your decision will not result in any loss of benefits to which you are otherwise entitled. You have the right to skip any question or research activity, as well as to withdraw completely from participation at any point during the process. You have the right to ask questions about this research study and to have those questions answered before, during, or after the research. If you have any further questions about the study, at any time feel free to contact Peter Cunningham at pcunningham@dist76.org. You may also contact the supervising faculty member, Dr. Kelly Summers, Associate Professor of Educational Administration at ksummers@niu.edu. If you have any questions about your rights as a research participant that have not been answered by the investigators or if you have any problems or concerns that occur as a result of your participation, you may contact the Office of Research Compliance, Integrity, and Safety at (815)753-8588.
Consent
- I agree to participate in this study.
- I do not wish to participate. (You will be exited from the survey)

End of Block: Introduction
Start of Block: School Selection
Please select your school.
- West Oak Middle School
- Kennedy Junior High
- Woodlawn Middle School
- Fremont Middle School
- Hawthorn Middle School North
- Hawthorn Middle School South
- Deerpath Middle School
- Robert Abbott Middle School
- Jack Benny Middle School
- John Lewis Middle School
- Miguel Juarez Middle School
- Edith Smith Middle School
- Carl Sandburg Middle School
- Jack London Middle School
- Stevenson Middle School
- Carpentersville Middle School
- Barrington Middle School Prairie Campus
  - Hadley Junior High
  - Old Quarry Middle School
  - Twin Groves Middle School
  - Daniel Wright Middle School
  - Aptakisic Junior High
  - Other School Not Listed

What is the average class size for YOUR schedule?

________________________________________________________________

What is your gender?
o Male
o Female
o Non-binary / third gender
o Prefer Not to Answer

What is your race? Click all that apply.
1. White
2. American Indian or Alaska Native
3. Asian
4. Native Hawaiian or Pacific Islander
5. Black
6. Hispanic
7. Other
8. Prefer Not to Answer

How many years have you been a teacher? If you do not want to answer, please type, "prefer not to answer".

What subject(s) do you teach? Click all that apply.
9. Math
10. Language Arts/Literacy
11. Foreign Language
12. Special Education
13. Social Studies
14. Science
15. Physical Education/Health
16. Technology
17. Music/Band/Choir/Orchestra
18. STEM/Technology
19. Exploratory/Unified Arts
20. Dual Language
21. Bilingual/EL Resource
22. Other
23. Prefer Not to Answer

End of Block: School Selection
Start of Block: Situations in School
Instructions:

The Situations in School questionnaire lists 15 different teaching situations that commonly occur during classroom instruction. For each situation, four ways a teacher might handle that situation are presented. There are no right or wrong answers. Instead, you are asked to indicate how much each way of handling the situation does or does not describe what you have done in the past—in similar situations. If the way of teaching describes extremely well what you have done to handle the situation, then circle a number near 7 for that item. If the way of teaching does not describe at all what you have done in the past, circle a number near 1. If the way of teaching only somewhat describes your past teaching, circle a number near 4, using the following 7-point scale:

There are 15 classroom situations, and each one lists 4 different ways a teacher might respond to that situation. So, a completed questionnaire provides 60 total responses.

End of Block: Situations in School
Start of Block: Vignette 1

1. Classroom Rules

You are thinking about classroom rules.  

So, you:

<table>
<thead>
<tr>
<th>Make an announcement about your expectations and standards for being a cooperative classmate</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<table>
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<tr>
<th>Don't worry too much about the rules and regulations.</th>
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</tbody>
</table>
Post your rules. Tell students they have to follow all the rules. Post the sanctions for disobeying the rules. Invite students to suggest a set of guidelines that will help them to feel comfortable in class.

<table>
<thead>
<tr>
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<th>4</th>
<th>5</th>
<th>6</th>
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<tbody>
<tr>
<td>Communicate which learning goals you</td>
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</table>
3. Starting Class

The class period begins.
<table>
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<th>You:</th>
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<th>4</th>
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<tr>
<td>Provide a clear, step-by-step schedule and overview for the class</td>
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<td>Don’t plan too much. Instead, take things as they come.</td>
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<td>Insist firmly that students must learn what they are taught—your</td>
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<td>duty is to teach, their duty is to learn.</td>
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<td>Ask students what they are interested to know what the learning</td>
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</table>
4. Motivating Students

You would like to motivate students during class.

*You decide to:*

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<th>Method</th>
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<tr>
<td>Minimize the lesson plan; let what happens happen in the lesson.</td>
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<tr>
<td>Pound the desk and say loudly: “Now it is time to pay attention!”</td>
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<td>Offer help and guidance.</td>
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<td>Identify what the personal benefits of the learning material are for students’ everyday life.</td>
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5. Non-Responsive Students

You ask your students a challenging, but doable question to involve them in the lesson. However, as during the previous lesson, you get only silence, as no student answers your question.

You …

<table>
<thead>
<tr>
<th>Name a student and you oblige that student to answer your question.</th>
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<tr>
<th>Clarify and reframe the question so that students can answer it. Ask students to discuss the question with their neighbor and then invite them to share their answer.</th>
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within their groups. Sigh. Just give the answer yourself and move on.

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6. Students Complain

At a difficult point in the lesson, students begin to complain. 

*In response, you:*

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<tr>
<th>Action</th>
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<th>4</th>
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<th>7</th>
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<tr>
<td>Accept their negative feelings as okay. Assure them that you are open to their input and suggestions. Insist they pay attention. They must learn this material for their</td>
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own good. Show and teach them a helpful strategy for how to break down the problem to solve it step-by-step. Just ignore the whining and complaining. They need to learn to get over the obstacles themselves.

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End of Block: Vignette 6

Start of Block: Vignette 7

7. Needing Extra Effort

You present a difficult lesson that requires a lot of effort from the students. In doing so, you:

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<td>Don’t be too</td>
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concerned, as students need to figure out for themselves how much effort to put forth. Try to find ways to make the lesson more interesting and enjoyable for the students. Insist firmly that “Now is the time for hard work!” Say, “Because this lesson is extra difficult, I will provide you with extra help and extra assistance, if needed.”
**8. Anxiety Surfaces**

During a class assignment, you notice that some students are showing signs of anxiety.  
*Sensing that anxiety, you:*

<table>
<thead>
<tr>
<th>Acknowledge that they look anxious and stressed. Invite them to voice their sense of unease.</th>
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<table>
<thead>
<tr>
<th>Insist that they must act in a more mature way. Break down the steps needed to handle the assigned task so that they will feel more capable of mastering it. Don’t worry about it—</th>
<th>1</th>
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9. Transition to a New Activity

One learning activity ends and you are about to make the transition to a new learning activity.

*You:*

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<tr>
<th>Command the students to hurry up and to finish the old activity. Monitor how well each student is ready and able to make the transition to the new activity. Just start the new activity—maybe some students</th>
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A couple of students have been rude and disruptive. 

To cope, you:

1. Command that they get back on task immediately; otherwise there will be bad consequences.

2. Explain the reasons why you will follow.
   Be patient; confirm that those who are still working hard may have the time they need to finish up.

1  2  3  4  5  6  7

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want them to behave properly. Later talk to them individually; you listen carefully to how they see things. Communicate the classroom expectations for cooperation and prosocial skill. Let it go, because it is too much of a pain to intervene.

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11. Practice Time

It is time for students to practice what they have learned.

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<th><strong>Ask students which types of practice problems they may want to work on the most.</strong></th>
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<td><strong>Demand that now is the time to work, whether they like it or not. Tell them that they sometimes need to learn to do things against their will.</strong></td>
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<td><strong>Not to plan too much and see how things evolve. Explain the solution to one problem step-by-step, then guide their progress and improvement on the follow-up.</strong></td>
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12. Arguing Students

As the class ends, it comes to your attention that two students are arguing and offending each other.

As the rest of the students leave the classroom, you ask the two students to remain so that you can:

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<td>Take the arguing students aside: describe briefly what you saw</td>
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<td>and ask for their view and suggestions about what to do.</td>
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<td>Be clear about what the classroom guidelines and expectations</td>
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cooperative behavior is. Don't intervene, just let students resolve things for themselves. Tell them they should be ashamed of their behavior and that, if they continue, there will be sanctions.

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unacceptable to you. Tell students that they must score higher for their own good. You help students revise their wrong answers so they understand what went wrong and how to improve. Listen with patience and understanding to what the students say about the test performance. Don't spend class time on the low scoring students.

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14. Remediation

One or more students need remediation because they repeatedly failed for your subject.

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</table>
End of Block: Vignette 14  
Start of Block: Vignette 15

### 15. Homework

*When assigning homework you …*

<table>
<thead>
<tr>
<th>Make it clear that the homework has to be done well; if not, bad consequences will follow. Communicate what it involves to competently do the homework. Check that everyone understands what is required to succeed.</th>
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ully accomplish the homework. Offer a number of different homework exercises (e.g., three) and you ask students to pick a few of them (e.g., two). Let the homework speak for itself rather than over-explaining everything.

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End of Block: Vignette 15
Start of Block: Disciplinary Frequency

Instructions:

Please describe the amount of times you have given teacher-directed consequences or an Office Disciplinary Referral (ODR) for the following offenses this past school-year (2021-2022). Teacher-directed consequences examples could be conferencing with
students, time-owed, restitution, or detentions. An ODR is referring a student to the school administration or Dean of students for disciplinary action. If a student fits into more than one category (ex. Hispanic and ELL student), count the disciplinary occurrence in both sections.

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<th>White Students</th>
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<td>o Defiance/Insubordination/Noncompliance</td>
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<tr>
<td>o Disruption</td>
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<td>o Disrespect</td>
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<tr>
<td>o Abusive Language/Inappropriate Language/Profanity</td>
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<td>o Physical Aggression/Fighting</td>
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<td>o Lying/Cheating</td>
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<tr>
<td>o Tobacco/Alcohol/Drug Offense</td>
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<td>o Theft/Forgery</td>
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<td>o Total</td>
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<th>Black Students</th>
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<td>o Defiance/Insubordination/Noncompliance</td>
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<tr>
<td>o Disruption</td>
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<td>o Abusive Language/Inappropriate Language/Profanity</td>
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<td>o Tobacco/Alcohol/Drug Offense</td>
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<td>o Theft/Forgery</td>
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<td>o Total</td>
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</tbody>
</table>
Hispanic Students

- Defiance/Insubordination/Noncompliance
- Disruption
- Disrespect
  - Abusive Language/Inappropriate Language/Profanity
- Harassment/Bullying
  - Physical Aggression/Fighting
- Lying/Cheating
  - Tobacco/Alcohol/Drug Offense
- Theft/Forgery
  - Total

Multi-Racial Students

- Defiance/Insubordination/Noncompliance
- Disruption
- Disrespect
  - Abusive Language/Inappropriate Language/Profanity
- Harassment/Bullying
  - Physical Aggression/Fighting
- Lying/Cheating
  - Tobacco/Alcohol/Drug Offense
- Theft/Forgery
  - Total

Native American/American Indian Students

- Defiance/Insubordination/Noncompliance
- Disruption
- Disrespect
Abusive Language/Inappropriate Language/Profanity

Harassment/Bullying
  Physical Aggression/Fighting

Lying/Cheating
  Tobacco/Alcohol/Drug Offense

Theft/Forgery
  Total

Asian/Pacific Islanders
  Defiance/Insubordination/Noncompliance
  Disruption
  Disrespect
    Abusive Language/Inappropriate Language/Profanity
  Harassment/Bullying
    Physical Aggression/Fighting
  Lying/Cheating
    Tobacco/Alcohol/Drug Offense
  Theft/Forgery
  Total

English-Language Learners (ELL)
  Defiance/Insubordination/Noncompliance
  Disruption
  Disrespect
    Abusive Language/Inappropriate Language/Profanity
  Harassment/Bullying
    Physical Aggression/Fighting
o Lying/Cheating
  o Tobacco/Alcohol/Drug Offense

o Theft/Forgery
  o Total

End of Block: Disciplinary Frequency
APPENDIX B

SITUATIONS IN SCHOOL (SIS) WITH KEY
Supplemental Material: The 15 Vignettes and Scoring Key of the SIS

Instructions

The Situations in School questionnaire lists 15 different teaching situations that commonly occur during classroom instruction. For each situation, four ways a teacher might handle that situation are presented. There are no right or wrong answers. Instead, you are asked to indicate how much each way of handling the situation does or does not describe what you have done in the past—in similar situations. If the way of teaching describes extremely well what you have done to handle the situation, then circle a number near 7 for that item. If the way of teaching does not describe at all what you have done in the past, circle a number near 1. If the way of teaching only somewhat describes your past teaching, circle a number near 4, using the following 7-point scale:

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<tr>
<td>Does not describe me at all</td>
<td>Somewhat describes me</td>
<td>Describes me extremely well</td>
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There are 15 classroom situations, and each one lists 4 different ways a teacher might respond to that situation. So, a completed questionnaire provides 60 total responses.

1. Classroom Rules

You are thinking about classroom rules. So, you:

Str1 1 2 3 4 5 6 7 Make an announcement about your expectations and standards for being a cooperative classmate.

Cha1 1 2 3 4 5 6 7 Don’t worry too much about the rules and regulations.

Con1 1 2 3 4 5 6 7 Post your rules. Tell students they have to follow all the rules. Post the sanctions for disobeying the rules.

As1 1 2 3 4 5 6 7 Invite students to suggest a set of guidelines that will help them to feel comfortable in class.
2. Lesson Plan
As you prepare for class, you create a lesson plan. Your top priority would be to:

Str2 1 2 3 4 5 6 7 Communicate which learning goals you expect students to accomplish by the end of the lesson.

Cha2 1 2 3 4 5 6 7 Don’t plan or organize too much. The lesson will unfold itself.

As2 1 2 3 4 5 6 7 Offer a very interesting, highly engaging lesson.

Con2 1 2 3 4 5 6 7 Insist that students have to finish all their required work—no exceptions, no excuses.

3. Starting Class
The class period begins. You:

Str3 1 2 3 4 5 6 7 Provide a clear, step-by-step schedule and overview for the class period.

Cha3 1 2 3 4 5 6 7 Don’t plan too much. Instead, take things as they come.

Con3 1 2 3 4 5 6 7 Insist firmly that students must learn what they are taught—your duty is to teach, their duty is to learn.

As3 1 2 3 4 5 6 7 Ask students what they are interested to know what the learning topic.

4. Motivating Students
You would like to motivate students during class. You decide to:

Cha4 1 2 3 4 5 6 7 Minimize the lesson plan; let what happens happen in the lesson.

Con4 1 2 3 4 5 6 7 Pound the desk and say loudly: “Now it is time to pay attention!”

Str4 1 2 3 4 5 6 7 Offer help and guidance.

As4 1 2 3 4 5 6 7 Identify what the personal benefits of the learning material are
for students’ everyday life.

5. Non-Responsive Students
You ask your students a challenging, but doable question to involve them in the lesson. However, as during the previous lesson, you get only silence, as no student answers your question. You …

Con5 1 2 3 4 5 6 7 Name a student and you oblige that student to answer your question.

Str5 1 2 3 4 5 6 7 Clarify and reframe the question so that students can answer it.

As5 1 2 3 4 5 6 7 Ask students to discuss the question with their neighbor and then invite them to share their answer within their groups.

Cha5 1 2 3 4 5 6 7 Sigh. Just give the answer yourself and move on.

6. Students Complain
At a difficult point in the lesson, students begin to complain. In response, you:

As6 1 2 3 4 5 6 7 Accept their negative feelings as okay. Assure them that you are open to their input and suggestions.

Con6 1 2 3 4 5 6 7 Insist they pay attention. They must learn this material for their own good.

Str6 1 2 3 4 5 6 7 Show and teach them a helpful strategy for how to break down the problem to solve it step-by-step.

Cha6 1 2 3 4 5 6 7 Just ignore the whining and complaining. They need to learn to get over the obstacles themselves.

7. Needing Extra Effort
You present a difficult lesson that requires a lot of effort from the students. In doing so, you:

Cha7 1 2 3 4 5 6 7 Don’t be too concerned, as students need to figure out for themselves how much effort to put forth.

As7 1 2 3 4 5 6 7 Try to find ways to make the lesson more interesting and enjoyable for the students.

Con7 1 2 3 4 5 6 7 Insist firmly that “Now is the time for hard work!”
Say, “Because this lesson is extra difficult, I will provide you with extra help and extra assistance, if needed.”

8. Anxiety Surfaces
During a class assignment, you notice that some students are showing signs of anxiety. Sensing that anxiety, you:

As8 Acknowledge that they look anxious and stressed. Invite them to voice their sense of unease.

Con8 Insist that they must act in a more mature way.

Str8 Break down the steps needed to handle the assigned task so that they will feel more capable of mastering it.

Cha8 Don’t worry about it—let it pass on its own.

9. Transition to a New Activity
One learning activity ends and you are about to make the transition to a new learning activity. You:

Con9 Command the students to hurry up and to finish the old activity.

Str9 Monitor how well each student is ready and able to make the transition to the new activity.

Cha9 Just start the new activity—maybe some students will follow.

As9 Be patient; confirm that those who are still working hard may have the time they need to finish up.

10. Student Misbehavior
A couple of students have been rude and disruptive. To cope, you:

Con10 Command that they get back on task immediately; otherwise there will be bad consequences.

As10 Explain the reasons why you want them to behave properly. Later talk to them individually; you listen carefully to how they see things.
Str10 1 2 3 4 5 6 7 Communicate the classroom expectations for cooperation and prosocial skill.

Cha10 1 2 3 4 5 6 7 Let it go, because it is too much of a pain to intervene.

11. Practice Time
*It is time for students to practice what they have learned. You ...*

As11 1 2 3 4 5 6 7 Ask students which types of practice problems they may want to work on the most.

Con11 1 2 3 4 5 6 7 Demand that now is the time to work, whether they like it or not. Tell them that they sometimes need to learn to do things against their will.

Cha11 1 2 3 4 5 6 7 Not to plan too much and see how thing evolve.

Str11 1 2 3 4 5 6 7 Explain the solution to one problem step-by-step, then guide their progress and improvement on the follow-up problems.

12. Arguing Students
*As the class ends, it comes to your attention that two students are arguing and offending each other. As the rest of the students leave the classroom, you ask the two students to remain so that you can:*

As12 1 2 3 4 5 6 7 Take the arguing students aside: describe briefly what you saw and ask for their view and suggestions about what to do.

Str12 1 2 3 4 5 6 7 Be clear about what the classroom guidelines and expectations are. Indicate what helpful, cooperative behavior is.

Cha12 1 2 3 4 5 6 7 Don’t intervene, just let students resolve things for themselves.

Con12 1 2 3 4 5 6 7 Tell them they should be ashamed of their behavior and that, if they continue, there will be sanctions.

13. Test Results
*You have finished scoring a test. Several students scored low again, even though you paid extra attention to this material last week. You...*

Con13 1 2 3 4 5 6 7 Insist that low scores are unacceptable to you. Tell students that they must score higher for their own good.
You help students revise their wrong answers so they understand what went wrong and how to improve.

Listen with patience and understanding to what the students say about the test performance.

Don’t spend class time on the low scoring students.

One or more students need remediation because they repeatedly failed for your subject.

You …

Insist: “Try harder. Get it right. Be serious. Otherwise there will be bad consequences.”

Re-explain the learning material step-by-step until they have mastered it better.

Say: “Okay, where might we start; any suggestions?”

Don’t intervene, but wait until they ask for additional support themselves.

Make it clear that the homework has to be done well; if not, bad consequences will follow.

Communicate what it involves to competently do the homework. Check that everyone understands what is require to successfully accomplish the homework.

Offer a number of different homework exercises (e.g., three) and you ask students to pick a few of them (e.g., two).

Let the homework speak for itself rather than over-explaining everything.

Key for calculating the subscales:
Autonomy support

Participative: \((as1 + as5 + as11 + as14 + as15)/5\)

Attuning: \((as2 + as3 + as4 + as6 + as7 + as8 + as9 + as10 + as12 + as13)/10\)

Structure

Guiding: \((str4 + str5 + str6 + str7 + str8 + str9 + str13 + str14)/8\)

Clarifying: \((str1 + str2 + str3 + str10 + str11 + str12 + str15)/7\)

Control

Demanding: \((con1 + con2 + con3 + con5 + con6 + con10 + con13 + con15)/8\)

Domineering: \((con4 + con7 + con8 + con9 + con11 + con12 + con14)/7\)

Chaos

Abandoning: \((cha5 + cha6 + cha7 + cha8 + cha9 + cha10 + cha12 + cha13 + cha14 + cha15)/10\)

Awaiting: \((cha1 + cha2 + cha3 + cha4 + cha11)/5\)
APPENDIX C

RECRUITMENT SCRIPTS
Script for Electronic Communication with the Principal

Good Morning Principal ________,

My name is Peter Cunningham, and I am a doctoral student at Northern Illinois University in the department of Leadership, Educational Psychology and Foundations. I am also the Principal of West Oak Middle School in Mundelein, IL. I am conducting a study for my dissertation entitled, *Examining Teaching Styles and Classroom Management Through the Lens of Self-Determination Theory: Implications for Race, Culture and Discipline*. As a part of my research, I am asking middle school teachers to complete a questionnaire to gather data about the types of discipline frequently given to students from different racial and/or cultural backgrounds by teachers and to determine the type of classroom teaching style a teacher uses. No identifiable information about the teachers will be collected and no data will be shared with the teachers. Teachers will indicate the school where they work and then will have the option to indicate their race, gender, subjects taught, and years of teaching. Would you be willing to send the questionnaire to your teaching staff? At the end of the study, if I receive at least a 50% response rate I will also be able to send you a breakdown of the predominant teaching styles in your building with definitions of key terms. I would only be sending you completely generalized, schoolwide information. If you are willing to have your school participate, I will send you an email with a script to send to your teachers.

Thank you for your consideration.

Peter Cunningham
pcunningham@dist76.org

Script for Electronic Communication with School Staff

My name is Peter Cunningham, and I am a doctoral student at Northern Illinois University in the department of Leadership, Educational Psychology and Foundations. I am also the Principal of West Oak Middle School in Mundelein, IL. I am conducting a study for my dissertation entitled, *Examining Teaching Styles and Classroom Management Through the Lens of Self-Determination Theory: Implications for Race, Culture and Discipline*. As a part of my research, I am asking middle school teachers to complete a questionnaire to gather data about the types of discipline frequently given to students from different racial and/or cultural backgrounds by teachers and to determine the type of classroom teaching style a teacher uses. No identifiable information about the teachers will be collected and no personal data will be shared with anyone. Teachers will indicate the school where they work and then will have the option to indicate their race, gender, subjects taught, and years of teaching. NOTE: This is a questionnaire for teachers ONLY. No other related services or administrators should complete the questionnaire.

[LINK TO COMPLETE QUESTIONNAIRE]

Thank you for your participation.
Peter Cunningham, pcunningham@dist76.org