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# Locus of Control, Academic Achievement, and Discipline Referrals

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LOCUS OF CONTROL, ACADEMIC ACHIEVEMENT,  
AND DISCIPLINE REFERRALS

A Specialty Study

Presented to

the Faculty of the Department of Educational Studies, Leadership, and Counseling

Murray State University

Murray, KY

In partial fulfillment

of the requirements for the Degree of

Specialist in Education

by

Rachel Hill

December 2016

LOCUS OF CONTROL, ACADEMIC ACHIEVEMENT, AND DISCIPLINE  
REFERRALS

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## ABSTRACT

This study was designed to determine the relationship among locus of control, academic functioning, and discipline problems in a sample of public high school seniors in the mid-West. Participants completed Rotter's locus of control measure; their state-wide test scores and discipline records were obtained from archives. Contrary to expectations, there were no statistically significant associations between locus of control and discipline, although there was a statistically significant negative correlation between test scores and discipline referrals. The implications and suggestions for future research are discussed.

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## CHAPTER I: INTRODUCTION

School can be an overwhelming experience for children and adolescents who struggle to cope with peer pressure, academic expectations, and social situations. It is common knowledge in the fields of school psychology and school counseling that children display their distress in different ways. For example, some children focus their distress inwardly, which results in anxiety, depressed mood, and shyness, while others exhibit their distress outwardly and display problems with aggressiveness, bullying, and argumentativeness. Often, these “externalizing” children find themselves being disciplined—they lose privileges, are referred to the office, suspended, or expelled (U.S. Department of Education, 2016). Statistics have shown the increasing number of suspensions and expulsions. For example, in the United States, the number of children referred to the principal’s office or otherwise disciplined at school is tremendous. In particular, for example, in 2006, more than 3.3 million students were suspended out of school at least once and 102,000 were expelled in (Planty, Hussar, & Snyder, 2009). According to the Office of Civil Rights of the United States Department of Education, of the 49 million students enrolled in public schools in 2011-2012; 3.5 million were suspended in school, 3.45 million were suspended out of school and 130,000 were expelled (U.S. Department of Education, 2016).

## **School Discipline**

School discipline is a system of rules, consequences, and behavioral strategies designed to regulate the behavior of children and adolescents in order to maintain order and support learning in schools (School Discipline-K12 Academics, 2016). These policies and procedures are created to prevent or minimize inappropriate behavior and maximize appropriate or prosocial behaviors by creating a supportive climate, maintaining routines, and having a code of conduct. Furthermore, school environments that are safe and supportive and school policies and procedures that are developmentally appropriate are conducive to learning. Despite schools' best efforts, not all students respond to these policies and supports and school personnel are obligated to refer the offending student for more intensive discipline.

Although discipline procedures in high school and primary grades vary, school discipline referrals (SDRs) or office discipline referrals (ODRs) may be useful in the early detection and monitoring of disruptive behavior problems (and patterns) to inform prevention efforts in the school setting. Indeed, discipline problems in the school setting are on the rise and are resulting in the increasing number of office discipline referrals (Pas, Bradshaw, & Mitchell, 2011). School discipline referrals are typically used as an indicator of how individual students are behaving and how well a school is doing in managing student behavior. These can be used to help determine when and how to intervene with a student. Furthermore, office discipline referrals are also often used to evaluate the impact of school-based interventions and policies and to identify children in need of more intensive preventive interventions (Pas, Bradshaw, & Mitchell, 2011). Similarly, school personnel can utilize discipline referrals to examine trends for discipline

problems such as the location of referral or time of day. This can assist with gaining a better understanding of the problems in their school in order to work towards reducing them and to evaluate school-wide behavior intervention efforts. For example, a study by Rusby, Taylor, and Foster through the University of North Carolina examined the nature and validity of SDRs in the early grades. The results of the study indicated most SDRs were given for physical aggression; the predominant consequence was time out. The study found that boys and at-risk students—students who are considered to have a higher probability of failing academically or dropping out of school—were more likely to receive an SDR than were girls. Not surprisingly, students in schools that had a systematic way of tracking SDRs were more likely to receive one (At-Risk: The Glossary of Education Reform, 2013).

### **Locus of Control**

When investigating discipline and school success, understanding the thought processes that influence a student's behavior is important. Indeed, developmental psychologists and social science researchers have explored these factors for decades to understand the impact of locus of control (Shinde & Joshi, 2011). According to Rotter (1966), adolescents and young adults make decisions based on their individual thought processes involving the type of control they feel they hold over the situation. Rotter developed the personality dimension called "Locus of Control" in the 1950s. Locus of control is defined as an individual's perception about the underlying main causes of the various events that take place in their lives. It involves the extent to which individuals believe their lives are controlled by themselves or by external factors. Furthermore, locus of control has a significant impact on students' lives, as their decisions and choices



related to academic performance, classroom behaviors, career development, interpersonal relationships, and health are affected by their perception of control (Shinde & Joshi, 2011).

An individual can be classified as having either an internal locus of control or an external locus of control, and both evaluate successes and failures differently. Individuals with an internal locus of control believe that they can control their life events because their behavior is determined by internal factors like hard work, decision-making, problem solving skills, effort, and persuasion. Students with an internal locus of control hold internal factors responsible for their success or failure and as a result, they become more self-reliant in achieving their goals. In addition, they are better at problem solving due to believing in their ability to do so. Conversely, individuals with an external locus of control believe their behavior is the result of external factors like luck, fate, chance, and the people around them. Students with an external locus of control limit further improvement of their own skills, abilities, strengths, and weaknesses by relying on external factors. Similarly, those with external locus of control often view life as uncontrollable and difficult to cope with and often hold superstitious beliefs (Shinde & Joshi, 2011).

### **State-wide/High Stakes Testing**

Standardized and criterion-referenced statewide testing, also referred to as high stakes testing, plays an enormous role in the United States and is an especially important aspect of public schools (Marchant, 2004). The American Educational Research Association described high stakes testing as mandated testing used to gather data about student achievement over time and to hold schools and students accountable (Marchant,

2004). High stakes tests are usually national or state-wide standardized achievement tests and most are norm-referenced (Marchant, 2004). The results of high stakes tests can carry serious consequences for students as well as for educators and schools because school systems are judged according to the aggregated scores for their students (No Child Left Behind Act [NCLB], 2001). High state-wide test scores may bring public praise or financial rewards, while low scores may bring public embarrassment or heavy sanctions from state and federal governments. For individual students, high scores may bring recognition of educational accomplishment while low scores may lead to grade retention (Marchant, 2004).

Given the nature of high-stakes testing and the potential problems associated with poor school performance, school systems are naturally concerned about the performance of their student body. It is in everyone's (teachers, students, school leaders) best interest in the school for all students to learn throughout the year and to demonstrate their knowledge on the exams. Theoretically, if a disproportionately high number of students have an external locus of control and have behavioral problems or take very little responsibility for their own learning, then the school's overall performance will suffer.

### **Summary**

Behavioral and disciplinary problems are rather widespread across high schools in the United States (Planty, Hussar, & Synder, 2009). Although there are numerous causes for these problems, schools are increasingly accountable for all of their students, regardless of the student's personal or family history, poverty status, or ethnicity. Indeed, students with behavior problems tend to struggle academically and are at increased risk for a number of adverse consequences in life (Whisman & Hammer, 2014). Additionally,

research has also shown a relationship between locus of control and overall behavioral adjustment (Miller, Fitch, & Marshall, 2003). However, no research was found that linked the dimensions of student locus of control, problem behavior, and academic achievement.

### **Statement of the Problem**

Students who have behavior problems in school have been a source of concern and debate for many years. Inappropriate behavior leads to consequences such as office discipline referrals, detention, and lack of academic achievement which often leads students to develop a poor or negative attitude towards academic success (Kutanis, Mesci, & Ovdur, 2011). Additionally, research (Mali, 2013) has found a link between academic achievement and the student's locus of control, but there remains a lack of research examining the student's locus of control and how it relates to performance on statewide testing and to discipline referrals.

### **Purpose of Study**

The purpose of this study was to investigate the relationship between locus of control, academic achievement, and discipline referrals in a sample of high school students. It was hypothesized that students with an external locus of control would have lower statewide test scores and more discipline referrals than those with an internal locus of control. Since individuals who have an internal locus of control are more likely to feel in control of their lives and decisions, it was hypothesized that these individuals would be more likely to have fewer discipline referrals and higher statewide test scores. Research has already demonstrated a correlation between locus of control and academic achievement (Mali, 2013), but not between locus of control and high stakes academic

achievement testing. Additionally, research has demonstrated an association between locus of control and behavior problems in schools (Miller, Fitch, & Marshall, 2003), but no association between behavior problems and high stakes state-wide achievement testing. If a student's locus of control is associated with their statewide test scores and their behavior, then schools might be in a position to screen then specifically target students who have an external locus of control in an effort to prevent dysfunction in the future.

### **Terms and Definitions**

- **Locus of Control:** a dimension of personality formulated by Julian Rotter that attempts to explain a person's traits or behaviors (Rotter, 1966). An internal locus of control is the belief that one is in control of his or her life circumstances and is not at the mercy of outside forces. An external locus of control is the belief that one is not in control of his or her life circumstances and that outside forces are in control.
- **Behavior Referral:** for purposes of this study, a behavior referral is information presented to office personnel/school administrators regarding student behavior in the school setting in order to hold students accountable for their behavior. This occurs when the teacher is unable to control the student's behavior in the classroom.
- **Statewide Testing/High-Stakes Testing:** these are norm-referenced tests used to evaluate educational standards, school performance, and individual performance in public schools; federal laws and policies mandate statewide tests as well as consequences for schools and local education agencies based on test results.

Testing is intended to improve student learning, student achievement levels, educational opportunities, and public support for schools (Hidden Curriculum: The Glossary of Education Reform, 2014).

- Emotional/Behavior Disorder: Individuals with Disabilities Education Act of 2004 defines this disorder as a condition where a student exhibits one or more of the following characteristics over a long period of time and to a marked degree that adversely affects her or his educational performance; A) an inability to learn that cannot be explained by intellectual, sensory, or health factors; B) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; C) inappropriate types of behavior or feelings under normal circumstances; D) a general pervasive mood of unhappiness or depression; E) a tendency to develop physical symptoms or fears associated with personal or school problems.
- ACT: The ACT college readiness assessment is a standardized test for high school achievement and college admissions in the United States produced by ACT, Inc. It was first administered in November 1959 by Everett Franklin Lindquist as a competitor to the College Board's Scholastic Aptitude Test, now the SAT (American College Testing, 1959).
- Academic achievement: represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments (Steinmayr, Mibner, Weidinger, & Wirthwein, 2015).

## **CHAPTER II: LITERATURE REVIEW**

### **Behavior Problems in Schools**

Discipline and behavior problems in America's public schools are serious, pervasive, and compromise student learning (Public Agenda, 2004). According to the United States Department of Education, for example, of the 49 million students enrolled in public schools in 2011-2012, 3.5 million were suspended in school, 3.45 million students were suspended out of school, and 130,000 students were expelled. Disturbingly, the National Education Association (NEA) reports that students in the United States lose approximately 18 million days of instruction due to suspensions (Kiema, 2016).

The term behavior refers to the way a person responds to a certain situation or experience. Behavior is affected by temperament, (which is made up of an individual's innate and unique expectations), emotions and beliefs. Behavior can also be influenced by a range of social and environmental factors including parenting practices, gender, exposure to new situations, general life events and relationships with friends and siblings (Behavior Problems: Centre for Community Child Health, 2006). Behavior issues that interfere with teaching and learning have notably increased according to a study released by Scholastic. Behavior problems affect the whole classroom, distract other students from learning, and require teachers to spend valuable instruction time on discipline and behavior management (Mayer & Phillips, 2012). Behavior problems in schools can include failing to complete homework, trouble sitting still or staying seated, bullying classmates, using rude or disrespectful language, and violent or destructive behavior.

The 2012 Civil Rights Data Collection (CRDC) and the Breaking Schools' Rules report published by the Council of State Governments provide numerous statistics

regarding school discipline and climate. Sixty percent of middle and high school students, for example, have been suspended at least once and those who have been suspended or expelled have a higher chance of being involved with the juvenile justice system the following year. In addition, they reported that 75% of students with particular educational disabilities were suspended or expelled at least once. In fact, one suspension in the ninth grade increases the risk of dropping out of high school and each additional suspension increases that risk by 20%. Although it could be reasoned that suspensions are merely correlates and not causative, the American Psychological Association (1999) found no evidence that the use of suspension, expulsion, or zero-tolerance policies have resulted in improvements in student behavior or increases in school safety. Conversely, it was found that suspensions and expulsions were linked to an increased likelihood of future behavior problems, academic difficulty, detachment and dropout.

Discipline and behavior problems are responsible for driving a substantial number of teachers out of the profession (Public Agenda, 2004). Similarly, findings from a national study of teachers and parents revealed that while a handful of students cause most disciplinary problems, those few often create a distracting and disrespectful atmosphere (Public Agenda, 2004). Teachers must operate in a culture of challenge and “second guessing” that is affecting their ability to teach and maintain order. For example, half of teachers in the Public Agenda study reported that they had been accused of unfairly disciplining a student and more than half of teachers reported that districts back down from assertive parents which causes an increase in discipline problems. Additionally, in a survey of teachers leaving the profession, 44% of teachers and 39% of highly qualified teachers cited student behavior as a reason for leaving. Similarly, 76% of

middle and high school teachers reported that they would be better able to educate students if discipline problems were not so prevalent (Brownstein, 2009).

Although schools commonly collect information on office referrals for student discipline problems, they do not always do so in a systematic way that offers useful information for understanding and enhancing individual student behavior and decreasing disruptive behavior problems. For example, the Public Agenda 2004 study revealed a large variation regarding the extent to which schools and teachers deliver discipline referrals, complicating the interpretation and utility of school discipline referral information. In addition, research (Eklund et al. 2009; Glascoe, 2000) has highlighted the importance of early detection of behavioral difficulties and early intervention to prevent the escalation of such problems. Children who enter school displaying disruptive behavior, such as oppositional and aggressive behavior, are at elevated risk for continued social and academic difficulties throughout school. These early behavior problems, along with failure to develop positive peer relationships, are associated with the development of later social adjustment problems such as school dropout, delinquency, teenage pregnancy, substance abuse, violence, and criminal activities. There is clear evidence supporting the importance of early prevention efforts for disruptive behavior problems, but schools often fail to identify students in need of services early enough (Glascoe, 2000; Public Agenda, 2004). The early identification of challenging behavior in schools is clearly an important step in preventing the persistence and intensification of these disruptive behavior problems (Eklund et al. 2009; Rusby, Taylor, & Foster, 2007). School personnel, students, and parents often call attention to the high incidence of related problems in school environments such as drug use, cheating, insubordination, truancy, and



intimidation (Cotton, 1990). In addition to these school discipline issues, American classrooms are frequently affected by other, more minor kinds of misbehavior. Savage and Savage (2010), for example, reported that a majority of the behaviors are minor such as talking out of turn.

In addition to the interfering with the general flow of classrooms and missed instructional days, disruptive behaviors in schools hinder learning in more direct ways. For example, a study conducted by the West Virginia Department of Education (Whisman & Hammer, 2014) examined the impact of discipline referrals on student academic performance. Students with one or more discipline referrals were 2.4 times more likely to score below proficiency in math than those with no discipline referrals. As the number of discipline referrals increased, so did the odds of poor academic performance. According to research by Putnam, Horner, and Algozzine (2005), discipline referrals in first and second grade were strong predictors of discipline referrals in third grade. Additionally, they found that reading competence in kindergarten was predictive of discipline referrals in third grade. Overall, predictors of discipline referrals in fifth grade were fourth grade discipline referrals and low oral reading speed. Essentially, they found that poor literacy alone does not lead to problem behaviors; rather, that students with problems behaviors and discipline referrals are more likely to have academic deficits.

Research also provides evidence of a link between school discipline practices, especially the use of suspensions, and lower academic achievement (Whisman & Hammer, 2014). The level of disciplinary involvement also has a strong negative relationship with the ability of students to achieve at grade level or graduate from high school. In addition, students with as few as one disciplinary contact during their middle

and high school years were twice as likely to repeat a grade or drop out of school as students with no disciplinary contacts. As the number of disciplinary contacts increased, so did the odds of grade retention or dropping out.

When examining discipline in schools, it is also important to look at factors that can influence a student's behavior. When a student fails to meet expectations at school, the home and family life should be taken into consideration, as well as the many family factors that can affect a child's behavior and ability to meet expectations. These can include economic stability, changes in family relationships, parental attitudes toward education and incidents of child abuse (Bennett, 2013). In addition, a parent's attitude toward education can influence a student's behavior and parent education can be one of the many predictors of a child's academic success. For example, Clonan, McDougal, Clark, and Davison (2007) found a positive correlation between the parent's level of education and their child's attitudes toward academic achievement. Additionally, poverty impacts a child's behavior, as well as their well-being and academic success. According to a study by the Illinois State Board of Education in 2001, poverty is the single best predictor of academic and social failure in U.S. schools (Kiema, 2016). An analysis of state data in Illinois and Kentucky found that income level alone accounted for 71% of the variance in standardized achievement scores (Zirpoli, 2014).

To function at school, the brain uses an overarching "operating system" that comprises a collection of neurocognitive systems enabling students to pay attention, work hard, process and sequence content, and think critically (Jensen, 2009). One study examined the brain's "operating system" and how it was linked to the socioeconomic status of a student. The study revealed both global and specific brain differences between

lower income and higher income children. An additional study (Jensen, 2009) found middle school students to have significant differences between lower income and higher income students in the five neurocognitive areas. Lastly, a study at Stanford University followed low income children in kindergarten and first grade through fifth grade and found that those who were poor readers in their early years of school were assessed by teachers as more aggressive later on (Miles & Stipek, 2006). The study also found students who have good social skills in kindergarten and first grade were more likely to be good readers in third grade. A child's social behavior can promote or undermine their learning and their academic performance may have implications for their social behavior.

### **Statewide Testing/High Stakes Testing**

According to the Hidden Curriculum: The Glossary of Education Reform (2014), a high stakes test is any test used to make important decisions about students, educators, schools, or districts (Hidden Curriculum, 2014). High stakes tests are also used for the purpose of accountability, the attempt by federal, state, or local government agencies and school administrators to ensure that students are enrolled in effective schools and are being taught by effective teachers. "High stakes" means that test scores are used to determine punishments (such as sanctions, penalties, funding reductions), advancement (grade promotion or graduation for students), and compensation (salary increases or bonuses).

High stakes testing in schools had its origin in the 1980s with the publication of *A Nation at Risk* issued by the Reagan administration (Johnson & Johnson, 2009). The report stated that public schools in the United States lacked rigorous standards and were failing. The Business Roundtable initiated a campaign to return curriculum to the basics

to require schools to meet high standards and be held accountable (Johnson & Johnson, 2009). In 2002, the No Child Left Behind Act (NCLB) bill was signed into law by President George W. Bush. No Child Left Behind gave all children, regardless of physical or mental challenges, race, socioeconomic status, or English Language proficiency, equal and significant opportunity to obtain a high-quality public education. NCLB mandated annual testing of every child in grades three through eight using each state achievement tests. NCLB links standardized test performance to sanctions for public schools that fail to make adequate yearly progress (AYP) by each subgroup of students based on special needs, minority status, English language proficiency, and socioeconomic status.

According to the American Psychological Association (1999), measuring what and how well students learn is an important building block in the process of strengthening and improving the nation's schools. Tests should be a part of a system in which broad and equitable access to educational opportunity and advancement is provided to all students. Tests, when used properly, are among the most sound and objective ways to measure student performance and give classroom teachers important information on how well individual students are learning and provide feedback to the teachers on their teaching methods and curriculum materials. Currently, under the NCLB, school districts are mandating tests to measure student performance and to hold individual schools and school systems accountable for that performance.

## **Locus of Control**

Although there are numerous theories formulated to describe, understand, and predict human behavior, Julian Rotter's work is especially robust and validated. This social learning theory developed by Julian Rotter postulates that personality represents an interaction of the individual with his or her environment. Rotter describes personality as a relatively stable set of potentials of responding to situations in a particular way. Rotter explains in order to understand behavior, one must take both the individual and the environment into account (Rotter, 1966). There are four main components to Rotter's social learning theory model of behavior: (behavior potential, expectancy, reinforcement value, and the psychological situation). Rotter's social learning theory suggests that behavior is influenced by social context or environmental factors, and not psychological factors alone. A strength of Rotter's social learning theory is that it explicitly blends specific and general constructs, offering the benefits of each. In social learning theory, all general constructs have a specific counterpart and for every situationally specific expectancy there is a cross-situational generalized expectancy. Social learning theory blends generality and specificity to enable psychologists to measure variables and to make a large number of accurate predictions from these variables. Rotter's concept of generalized expectancies for control of reinforcement is known as locus of control and was originally established in the 1950s. Locus of control is a dimension of personality and helps explain one's traits and behaviors. Locus of control refers to one's very general, cross-situational belief about what determines whether or not they get reinforced in life (Haggbloom, Warnick, & Warnick, 2002). People can be very internal to very external—essentially, locus of control is on a continuum. Individuals with a strong

internal locus of control believe that the responsibility for whether or not they get reinforced ultimately lies with themselves and that success or failure is due to their own efforts. In contrast, individuals with an external locus of control believe that the reinforcers in life are controlled by luck, chance, or powerful others. They see little evidence that their own efforts are based on the amount of reinforcement they receive. Rotter suggested that there may be certain situations in which individuals who are generally external behave like internals. He explains that their learning history has shown them that they have control over the reinforcement they receive in certain situations, but overall they feel they have little control over what happens to them. Additionally, Rotter suggested that human behavior was controlled by rewards and punishments, and that it was these consequences for our actions that determined our beliefs about underlying causes for these actions. Our beliefs about what causes our actions then influence our behaviors and attitudes. Research has suggested that men tend to have a higher internal locus of control than women and that locus of control tends to become more internal as people grow older.

Internal does not always equal "good" and external does not always equal "bad." In some situations an external locus of control can actually be adaptive, particularly if a person's level of competence in a particular area is not very strong. The topic of locus of control has proven to be immensely popular, not only in the United States, but also in a cross-cultural context (Domino & Domino, 2006).

The concept of locus of control has been applied to a wide variety of endeavors ranging from beliefs about the after-life, to educational settings, and behavior in organizations. For the purposes of this study, however, the concept of locus of control

will be linked to children's behavior and academic achievement. The relationship between locus of control and academic achievement is complex. Logically, students who attribute success to internal factors are likely to expect future successes, while students who attribute failure to internal factors may expect future failure unless they consider themselves capable of actively address those factors (Mali, 2013). Conversely, attributing success to external factors would make future successes unpredictable and deem the student powerless to address what they perceive to be uncontrollable factors (Mali, 2013). Within the domain of education, internal locus of control has been found to be a positive predictor of academic achievement and external locus of control to be a negative predictor of academic achievement (Mali, 2013).

For example, Kutanis, Mesci, and Ovdur examined the effect locus of control on students' learning performance. This study concluded that learning performance of the students with an internal locus of control were high, and they were more proactive and effective during the learning process. The students with an external locus of control were more passive and reactive during the learning process.

Additionally, Shepherd, Fitch, Owen, and Marshall (2006) compared students in a higher grade point average group with those in a lower grade point average group while examining their locus of control scores. The study found higher academic achievement was correlated with locus of control scores, indicating a more internal locus of control.

From a behavioral perspective, Miller, Fitch, and Marshall (2003) examined how adolescents who exhibit chronic behavior problems perceive their control over their environment. The study consisted of 234 high school and middle school students and compared locus of control between students in regular schools and those in alternative

schools. They found that students in alternative schools had a higher mean score on the external locus of control than those in regular school. This means that students in alternative school (presumably because of inappropriate behavior), had an external locus of control.

Earlier research conducted by Bartel (1971) examined the relationship between locus of control and achievement in children from middle and lower socioeconomic status families. Bartel found no differences in locus of control between lower and middle class children in the first and second grades, but found significant differences when children reached the sixth grade. The research suggested that if differences in the social class of the child's family were completely or even primarily responsible for differences in locus of control between lower and middle class children, such family differences should have an impact on the child before the start of school. This study suggests that such differences are not present when the child enters school, but become more evident as the child progresses through school.

### **Measuring Locus of Control**

There are ways to reliably determine one's locus of control. For example, the Locus of Control scale measures generalized expectancies for internal versus external control of reinforcement. Rotter published the Locus of Control scale in 1966. Rotter's internal-external scale tests locus of control expectancy using 29 questions (Kurt, Dharani, & Peters, 2012). Each question has two options for the participant to choose from: one option expresses a typical attitude of internal locus of control expectancy, and the other indicative of the attitude of external expectancy. This choice represents an extreme option, and the participants are asked to choose the option which they more



strongly believe in, or the option that is closest to their preference. One point is scored for each external option chosen by the participant; thus, the higher the score, the more external the individual is regarded (Kurt, Dharani, & Peters, 2012). The scale determines one's perspective about how important events in society affect different people. One's perception of where control lies can have an impact on one's viewpoint and the way they interact with their environment. However, it is important to note that locus of control is a continuum and no one has a 100 percent external or internal locus of control (Cherry, 2016). Essentially, most people fall somewhere between the two extremes.

### **Summary**

Behavior problems in schools obviously have a significant adverse impact upon student performance, and many behavior problems can be linked to an external locus of control. In the age of educational reform and high stakes testing, behavior problems and locus of control seem to be having an increasingly important influence upon school accountability efforts. Understanding the role of locus of control and behavior problems in relation to student and school performance, therefore, can be an important dimension in improving school achievement efforts. The purpose of this study was to investigate the relationship between locus of control, academic achievement, and discipline referrals.

### CHAPTER III: METHOD

The purpose of this study was to determine the relationship among high school seniors' locus of control, statewide testing performance, and discipline referrals. Using Rotter's Locus of Control scale, American College Testing (ACT) scores, and office discipline referrals, the relationship among all three factors was explored.

#### *Participants*

The data for the sample were part of a larger study by the school in an effort to better understand the relationship among the three variables. All data were collected by school personnel and archived—aside from names used to match the three variables, no personally identifiable information was kept. Given the nature of the study, it was exempt from IRB approval. Participants for this study included 84 high school seniors from a rural high school in Southern Illinois. There were 46 males (55%) and 38 females (45%) in the sample. The age of the participants ranged from 17 to 18. All students were seniors. The average ACT score for the sample was 21.27 with a standard deviation (*SD*) of 5.14. ACT scores ranged from 12 to 24. The average number of discipline referrals was 5.76 (*SD* = 8.94). Two participants were eliminated because they had been referred for discipline more than 34 times and were considered outliers. The average locus of control score for the sample was 11.29 (*SD* = 3.7) and ranged from 3 to 19. This mean Rotter score is consistent with earlier research (Rotter, 1954).

#### *Instrumentation*

Julian Rotter's locus of control instrument, also known as the Internal-External Scale, served as the locus of control measure. This measure is comprised of 29 questions

in which the participant circles the statement with which they agree. Each question contained only two statements to choose from, either A or B. The total was then tallied with a high score indicating an external locus of control and a low score indicating an internal locus of control. This instrument is available via open-source.

Rotter provided an extensive amount of information on the initial reliability and validity of the locus of control scale. Rotter reported corrected split-half reliabilities of .65 for males and .79 for females (Domino & Domino, 2006). Rotter felt that the nature of the scale resulted in underestimates of its internal consistency. Test-retest reliability in various samples with one and two month intervals ranged from .49 to .83 (Domino & Domino, 2006). Rotter's scale has been broadly used in American contexts as well as in other cultures around the world (Huizing, 2015). Based on research, the locus of control scale transitions into other cultures. Cross-cultural research estimates of internal consistency had a mean of .66 and a median of .69 with results as high as .93 and as low as -.40. Test-re-test reliability estimates ranged from .53 to .86 with a mean of .663 and a median of .640 (Huizing, 2015).

### *Procedures*

Permission to collect data was obtained from teachers and the high school principal at the high school under study. The researcher explained the nature and purpose of the project to the classes as well as the benefits, risks, and voluntariness of the study. The questionnaire took 10-15 minutes for the participants to complete. No personally identifying information was maintained for this study. All data were uploaded to SPSS for further analysis.

### *Hypotheses*

First, it was hypothesized that ACT scores would be inversely correlated with discipline referrals. Second, it was hypothesized that ACT scores would be inversely correlated with Rotter scores, with internalizers having statistically higher ACT scores. Lastly, it was hypothesized that the number of discipline referrals would be inversely correlated with Rotter scores, with internalizers having fewer discipline referrals.

### *Analyses*

All data, minus any personally identifiable information, were entered into an SPSS computer statistics program for analysis. Pearson correlations were used to measure the relationship among all three variables of interest (locus of control, statewide testing scores, and discipline referrals). This was followed by point-biserial correlations after dichotomizing each of the variables into a high group (above the mean) and a low group (below the mean). The common .05 level of probability was adopted as an indication of a statistical significance.

## CHAPTER IV: RESULTS AND DISCUSSION

The purpose of this study was to examine the relationship between locus of control, statewide test score, and discipline referrals in high school seniors. The purpose of this chapter is to describe the statistical analyses used to examine these relationships. As noted in Chapter Three, the self-report instrument used in this study—Rotter's locus of control scale—generates raw scores. Interpretation is straightforward—the higher the score the more external is the person; the lower the score, the more internal. A description of the means and standard deviation for the participants on the measure is provided in Table 1.

### *Results*

To test the first hypothesis, a Pearson correlation was computed which resulted in a statistically significant moderate negative correlation of  $-0.382$  ( $p = .001$ ). This statistically significant association means that as ACT scores increase the number of discipline referrals decrease and vice versa. To test the second and third hypotheses, Pearson correlations were computed. No significant association between ACT scores and the Rotter locus of control scale ( $r = -.09$ ,  $p = .864$ ) or between the Rotter locus of control scale and discipline referrals ( $r = .040$ ,  $p = .718$ ) was found. These results are summarized in Table 1.

In an effort to further analyze any possible associations among the three variables, the ACT, Rotter, and Discipline referrals were split at the mean, thus creating dichotomous variables from the continuous variables. Chi square analyses were then computed to test for proportionality. However, no statistically significant results were discovered. Specifically, when analyzing proportionality between the ACT (above the

mean and below the mean for the sample) and the locus of control raw score (also split at the mean), the resulting chi square was insignificant ( $\chi^2=.310$ ,  $df = 1$ ,  $p = .577$ ). Similarly, when splitting the locus of control scale into quartiles, the resulting chi square was not significant ( $\chi^2=.807$ ,  $df = 3$ ,  $p = .848$ ). Lastly, a chi square of proportionality between the number of discipline referrals and the locus of control scale was similarly not significant ( $\chi^2= .040$ ,  $df = 1$ ,  $p = .842$ ). Overall, only the first hypothesis was supported.

### *Discussion*

Consistent with expectations based on previous research (Kiema, 2016; Public Agenda, 2004; Whisman & Hammer, 2014), there was a moderate negative or inverse association between ACT scores and discipline referrals. It is unclear, however, given the correlational nature of the study, if low academic achievement causes behavior problems or vice versa. Contrary to expectations when considering previous research that revealed an association between locus of control and academic functioning (Mali, 2013) and between locus of control and behavior problems (Kutanis, Mesci, & Ovdur, 2011; Shepherd, Fitch, Owen, & Marshall, 2006), there was no statistically significant association between locus of control and either academic functioning or discipline referrals. This means, for this study, one's perceived control over their environment (and presumably the responsibility they took for their own learning) had no bearing upon their academic progress in school. Similarly, one's perceived control over their behavior (and presumably for controlling their own impulses or solving problems) was unrelated to the behavior.

It is impossible without further study what factor(s) might account for these unexpected findings (vis-à-vis hypotheses 2 and 3). Perhaps the academic programming,

tutoring, and instructional procedures in this school are effective, resulting in relatively strong academic performance. This would naturally reduce the range of ACT scores, which would decrease the likelihood of finding a statistically significant correlation between locus of control and academic functioning. Regarding the lack of association between locus of control and behavior problems, it could be that the interventions that teachers are using in the classroom are effective, or perhaps there were just too few behavior problems that actually warranted a discipline referral—this resulting restriction of range would again decrease the likelihood of finding a statistically significant association between locus of control and behavior problems.

Table 1

*Correlation matrix for ACT, Rotter, and Discipline Referrals*


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	ACT	Rotter	Discipline
ACT	---	-.019	-.382*
Rotter		---	.040

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\* $p = .001$

## **CHAPTER V: IMPLICATIONS, LIMITATIONS, AND FUTURE RESEARCH**

### *Implications*

Based on the findings in this study, this school should strive to intervene earlier to prevent future behavior problems. Overwhelmingly, past research (and this current study) links behavior problems to poor academic outcomes. Perhaps the school could implement a response to intervention paradigm where students are screened several times yearly and those with the potential for developing more maladaptive behavior problems could be identified and provided supplemental counseling or group intervention. Conversely, for this school, the issue of locus of control appears to have no meaningful bearing upon student behavior or student achievement.

### *Limitations*

Like all research, this study has limitations that hinder interpretation and generalizability. First, the sample size was limited and lacked diversity in terms of the number of office referrals and the ACT scores. A larger sample size would increase power and more diversity in behavior and academic functioning would address problems associated with restriction of range. Second, it was unclear in this high school what policies the teachers were following in terms of when to make an office referral. Some teachers, for example, may have more control over their students and/or may prefer to handle behavioral infractions themselves. Others may refer students for even minor infractions. This possible inconsistency in threshold for making an office referral could result in a selection bias where there is no prototypical office referral.



### *Future Research*

Consistent with the limitations outlined above, future investigators studying the relationship between locus of control and behavior and locus of control and academic functioning should replicate this study by obtaining a more diverse sample in terms of office referrals and academic functioning. This should help control for the potential problems of restriction of range in both variables. Future research should attempt to control for discipline practices. For example, it could be that some teachers are more tolerant of some aberrant behaviors than other teachers, resulting in only a minority of teachers referring children for discipline. Lastly, future researchers should consider replicating this study (after controlling for the above issues) with middle school students.

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