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The Effect of WhyTry on Student Motivation

David Garrison

Thesis Submitted in Partial Fulfillment of the Requirements for the
Degree of Master of Arts in Education

California State University, Monterey Bay

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THE EFFECT OF WHYTRY ON STUDENT MOTIVATION

The Effect of WhyTry on Student Motivation

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THE EFFECT OF WHYTRY ON STUDENT MOTIVATION

Abstract

The United States of America's educational system came under fire in 1983 when the National Committee on Excellence in Education published its report "A Nation at Risk" critiquing the system's failings and calling for a raising of standards (Goldberg & Harvey, 1983). Since the report, the nation has seen wide-sweeping attempts at educational reform such as No Child Left Behind and the Common Core State Standards. Despite more school accountability and increased rigor there are districts, counties, and states that are witnessing a decline or lack of improvement in student achievement (Betts, Young, Zau, & Bachofer, 2016). A multitude of studies discussed in this paper have found that engaged students generally perform better academically, and that motivation is a key factor in student engagement. This study utilized a quasi-experimental quantitative design using the six subscales related to student motivation on the Motivated Strategies for Learning Questionnaire (MSLQ; Pintrich, 1991) to measure the effectiveness of the WhyTry intervention ("WhyTry Resilience Education", 2017) for a control and treatment group of 9th grade English classes. WhyTry ("WhyTry Resilience Education", 2017) is a modular program designed to help students over obstacles in life and raise their academic motivation ("WhyTry Resilience Education", 2017). Independent and paired t-tests were conducted to determine if the intervention was successful in improving the motivation of the treatment group. Ultimately the results were inconclusive. This study reinforces the call for more research on interventions aimed at raising student academic motivation and thus their level of academic achievement.

Keywords: academic motivation, amotivation, intervention, MSLQ, WhyTry

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THE EFFECT OF WHYTRY ON STUDENT MOTIVATION

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The Effect of WhyTry on Student Motivation

Literature Review

Since the 1983 publishing of the National Commission on Excellence in Education's report "A Nation at Risk" highlighted a severe decline in the American educational system, several major nation-wide measures have been brought about in the name of improving the United States' educational system (Gaffney, 2016; Goldberg & Harvey, 1983; "Standards, Assessment, and Accountability", 2018). One measure was the passage of the No Child Left Behind (NCLB) Act in 2001. NCLB called for states to undergo a move towards standards-based reform, although what that looked like specifically would be determined at an individual state level ("Standards, Assessment, and Accountability", 2018). Therefore, 50 states were potentially creating and implementing 50 different sets of educational standards, which prompted the need for unification of the standards in 2009. This new set of standards was designed to unify the educational standards across the United States and to ensure all students were college and career ready when they completed high school (Gaffney, 2016).

In 2010, the Common Core State Standards (CCSS) were initially published with set standards for mathematics and English, which as of 2018 have been adopted by 42 states ("Standards, Assessment, and Accountability", 2018). Unfortunately, since the adoption of CCSS and smaller initiatives, some states have witnessed a decline in graduation rates (Betts, Young, Zau, & Bachofer, 2016). In California, for example, the average graduation rates in 2016 for Los Angeles and San Diego school districts dropped 11% and 15%, respectively (Betts et al., 2016). In the wake of CCSS, it is important not only to be concerned with the standards to be met, but also with the human aspect of the students themselves. One factor to consider outside of

standards is whether or not students are actually engaging with the educational material being presented.

Student Engagement

Student engagement can entail many different definitions, but for the purposes of this study it will be broadly defined as students demonstrating interest, participation, and effort in class, unless otherwise specified (Fullan & Quinn, 2016). According to a 2014 Gallup poll, only 53% of students consider themselves engaged in school (Fullan & Quinn, 2016). Student engagement can potentially be measured through observations or surveys, but it is a concept and not something concrete that one can touch. Although intangible, attempts have been made to categorize types of student engagement to better study the underlying causes behind it.

Fredricks, Blumenfeld, and Paris (2004) categorize engagement into three distinct types: behavioral, emotional, and cognitive. Behavioral engagement includes academic/social/extracurricular participation; emotional engagement involves positive and negative feelings towards teachers, peers, and school; and cognitive engagement is the willingness to put in the effort necessary to understand ideas and master skills (Fredricks et al., 2004). When categorized as such, it is apparent that the concept of engagement is multifaceted and the absence or maladaptive (i.e., negatively flawed) form of any one of the aforementioned types can have a negative impact on the student. For example, if: (a) he/she is disrupting the learning of themselves and others; (b) he/she does not like his/her teacher, peers, or school, it is doubtful that he/she will be emotionally capable of focusing on the task at hand; (c) he/she is not willing to put effort into his/her own education, he/she will not reap any rewards of the education to which he/she is being exposed. If the previously cited Gallup poll statistics of student engagement, or lack thereof, are representative of student engagement today, it is vitally

important that the underlying root be discovered to invigorate and engage students for success academically so that they may have the skills they need for a successful life.

Self-Determination Theory, Motivation, and Engagement

If a student is not engaged, they are probably not motivated (i.e., impelled, or driven) to succeed (Fullan & Quinn, 2016). The Self-Determination Theory (SDT; Deci & Ryan, 1985) is a framework to conceptualize the reason behind the choices people make by examining intrinsic (i.e., natural and internal) and extrinsic (i.e., foreign and external) motivation as it relates to engagement (Deci, Vallerand, Pelletier & Ryan, 1991). SDT (Deci & Ryan, 1985) has been a key tool in helping researchers study the correlation between student motivation and engagement; finding that motivation is related to engagement, although there is disagreement as to what extent (Froiland & Worrell, 2016; Saeed & Zyngier, 2012; Taylor et al., 2014).

Saeed and Zyngier (2012) propose that teachers provide both intrinsic and extrinsic motivations in the classroom to varying extents. A teacher can inspire intrinsic motivation in some students by drawing a connection between the assignment and why it is an important and meaningful task, but the teacher may also provide extrinsic motivation in the forms of a consequence (e.g., a poor grade) and/or reward (e.g., a good grade or candy; Saeed & Zyngier, 2012). Although the teacher has input, ultimately each student will have their own personal reason for doing an assignment. For example, two students might dutifully work on and complete the task provided by the teacher. However, one could have been motivated intrinsically (i.e., internally) because they found the task personally meaningful; whereas the other student could have been extrinsically motivated (i.e., driven by external forces) because finishing the task quickly would mean that they could begin free-time all that much sooner. Assuming the

assignment was completed as intended, both students may receive equal credit for finishing the assignment, although they completed it for different reasons.

A 2014 multi-country, multi-school study acknowledged the role of motivation in student academic achievement (i.e., grades) and sought to identify the level of intrinsic motivation as a key predictor of academic achievement over time (Taylor et al., 2014). Using the SDT (Deci & Ryan, 1985), Taylor and colleagues (2014) administered questionnaires twice to students across different middle and high schools in Canada and Sweden. In the study, geographic and cultural differences were found to have no noticeable effect, but across all schools, intrinsic motivation was found not only to have a positive effect on academic achievement, but the presence of it generally served as an indicator of academic success one year later (Taylor et al., 2014). If the academic success of students can be predicted by their level of intrinsic motivation, then it follows that raising student motivation levels could lead to higher academic achievement (Saeed & Zyngier, 2012; Taylor et al., 2014). With intrinsic motivation appearing to be a major factor in academic achievement, it is important to look at the Gallup poll's 47% of students that are not engaged (Fullan & Quinn, 2016).

The potential argument of morality aside, it is in the nation's best interests to motivate students towards high academic achievement – statistics suggest that high school dropouts make up 69 percent of county jails, 56 percent of federal prisons, and 67 percent of state prisons at an annual cost of \$28,323 per prisoner – over twice the average cost of educating a student per year (Alliance for Excellent Education, 2013). High school dropouts make on average \$80,000 less per decade than high school graduates and \$265,000 less than college graduates per decade, contribute less economically, and cost taxpayers billions of dollars more than more-educated individuals on health care annually (Alliance for Excellent Education, 2013). With statistics

showing that high school dropouts account for a costly majority of the nation's incarcerated population and billions of extra dollars in health care, it is fiscally and socially of the upmost importance that students are motivated towards academic achievement (Alliance for Excellent Education, 2013). Therefore, it becomes paramount to determine what causes students to become amotivated so that educational personnel can seek to find ways to motivate these individuals.

Amotivation

Students that care about their school and education exert effort and ideally achieve academic success; however, students who lack intrinsic motivation will likely achieve less favorable results (Gillen-O'Neel & Fuligni, 2012). Amotivation (i.e., the lack of motivation) in the academic sense can be defined as an apathetic detachment and/or unwillingness to work when the students themselves do not consciously know the reason for their attitude nor comprehend the consequences of their inactions (Legault, Green-Demers, & Pelletier, 2006). Without full comprehension of negative consequences and the taking of steps to avoid them, students can set themselves up for future hardships (Fan & Wolters, 2012; Seligman, 1971).

Learned helplessness (Seligman, 1971) for humans is a sense of perceived powerlessness in a negative or harmful situation where no steps are taken to avoid further negativity or harm. Research suggests that learned helplessness can start as early as elementary school and may become progressively worse as students get older (Skinner, Furrer, Marchand, & Kindermann, 2008). Students that do not see a correlation between their efforts and progress or success may eventually find themselves believing that they have no control over their lives and subsequently adopting behavior that will have negative repercussions (Fan & Wolters, 2012). The Self-System Model of Motivational Development (SSMMD; Skinner et al., 2008) attempts to identify underlying psychological causes for student engagement and disaffection, suggesting that in

addition to environmental factors, there is an innate drive (or lack thereof) inside students that results in engagement or amotivation. Although the development of the SSMMD is a step towards determining the root causes of amotivation, Skinner and colleagues also argue the need to specifically break down amotivation (2008).

With disengaged students unable to consciously understand the reasons for their amotivation, let alone articulate them, it is up to researchers to provide a method of identifying the root causes. In 2006, Legault and colleagues conducted a study with teenage students using the Academic Amotivation Inventory (AAI) – a Likert self-report questionnaire about study habits and personal beliefs. The AAI ascribes four dimensions to amotivation: low ability, low effort, low value, and unappealing tasks (Legault et al., 2006). Legault and colleagues (2006) found that students with low academic ability do not believe themselves capable of accomplishing a task and therefore may not attempt it; creating a self-fulfilling prophecy: they can internalize this failure and have a similar opinion of themselves in the future. The continuance of this learned helplessness (Seligman, 1971) over an extended period could lead to a dire situation in which a student who only thought he/she did not have the skill to complete a task becomes so far behind that there are now tasks he/she encounters in school that he/she truly is too far behind to do. It is also possible that students may not attempt work because of what it is: work. A challenge for the future may be getting students to think differently about work, lest they develop an attitude of laziness that could negatively affect them in the job market.

The third possible dimension of amotivation strongly related to the intrinsic value of the SDT (Deci & Ryan, 1991), is that students that do not see the value of an assignment will probably not do it (Taylor et al., 2014). A good teacher will assign work that students perceive as meaningful, but if a student does not do the assignment because of a perceived lack of value,

then the student does not receive the necessary practice. Finally, students may not do the work simply because they find the task itself boring (Legault et al., 2006). Thus, educators must work to make tasks accessible to students and provide the rationale for doing said work as a means to foster motivation. Regardless of the reason behind student amotivation, failure to provide instruction to combat it is unlikely to provide students with the academic performance, personal motivation, and skills necessary to be competitive in college and/or the job market after high school (Fan & Wolters, 2012).

Motivation and Instruction

Since teachers are the biggest influences on the classroom it is integral that they utilize teaching practices that promote and foster engagement in their students. In recent years, numerous studies have been conducted to explore the effectiveness of various instructional techniques on student motivation; from concrete practices such as having students set and track their own goals (Schuitema, Peetsma & van der Veen, 2014), to the more intangible such as teachers providing an emotionally supportive environment (Ruzek et al., 2016). Frey and Fisher (2010) contend that students must be given meaningful work (the definition of which the researchers admit varies from teacher to teacher) in order to be motivated about their academic performance. By giving students work that is not only meaningful, but delivered in a way that is engaging, many of the amotivational blocks discussed in the previous section may be overcome (Frey & Fisher, 2010). With the knowledge that motivated students generally perform better academically than amotivated ones, it is important to have a measure of motivation for the purposes of intervention studies.

One of the most difficult aspects of changing teachers' practices to promote student motivation is the lack of consistency in measurement. Although studies have shown that

educational videos, online games, social media platforms, productive group work, authentic assessments, and many other approaches have been shown to promote student motivation, without a common measure of student motivation comparison of results across studies is nearly impossible (Cauley & McMillan, 2010; Cudney & Ezzell, 2017; Grant, Lapp, Fisher, Johnson, & Frey, 2012; Frey & Fisher, 2010; Ruzek et al., 2016; Schuitema & van der Veen, 2014). If there were a universally used measure of motivation, the effectiveness of interventions on student motivation would be clearer in relation to one another. As there is no one agreed-upon instructional technique for promoting student motivation, it becomes important for teachers to assess their students' motivation to determine what types of instructional techniques and interventions they can use to promote motivation.

A Measure for the Problem

As motivated students perform better than amotivated students, the creation of informal assessments has begun to occur to track amotivation in the hopes of beginning to find a solution (Froiland & Worrell, 2016; Gillen-O'Neel & Fulgini, 2012; Wagetti, Johnston, & Jones, 2017). The Motivated Strategies for Learning Questionnaire (MSLQ; Pintrich, 1991) is an instrument designed as a self-report survey consisting of Likert-type scale questions (i.e., a numerical scale indicating degree of agreement or disagreement with a question/statement) about personal motivation and learning strategies (Pintrich, Smith, Garcia & Mckeachie, 1993). By asking questions that force students to engage in metacognition (i.e., thinking about their thinking), the MSLQ (Pintrich, 1991) can help inform deliberate attempts at student interventions (Pintrich et al., 1993). Over time, the MSLQ (Pintrich, 1991) has become a more frequently used measure for motivation in educational psychology (Hilpert, Stempien, van der Hoeven Kraft & Husman,

2013). The more motivational studies begin to utilize the MSLQ (Pintrich, 1991), the more various interventions can be uniformly assessed for their effectiveness in combating amotivation.

Interventions

At its most basic, an intervention is an instructional practice designed to help students that are struggling academically and/or behaviorally (Hughes & Dexter, 2011). As stated above, there is no one instructional strategy that will promote motivation in all students; thus, teachers must look to various interventions as potential catalysts for student motivation. Response to Intervention (RTI) by the National Center for Learning Disabilities breaks up interventions into one of three tiers (Hughes & Dexter, 2011). Originally intended for special education students, RTI is now present, or in the process of being implemented in schools across 47 states in the interest of helping all students (Hughes & Dexter, 2011). The list of individual interventions can be school-specific and is too fluid and numerous to document completely, but some examples of interventions are as follows:

- Tier 1 interventions are the broadest, covering the entirety of the student body: tardy sweeps, homeroom, Professional Learning Communities (PLCs,) 1:1 technology, Gradual Release of Responsibility (GRR,) homework center
- Tier 2 interventions cover around 10-20% of students: discipline referrals, 504 plans, credit-recovery classes, Advanced Placement courses, specialty homerooms
- Tier 3 interventions are the most intensive and meant for only around 5-10% of students: Individualized Education Plans (IEPs,) alternative education high schools, 1-on-1 psychological counseling (Hughes & Dexter, 2011).

Under the original model, students had to be monitored and tested for placement into Tier 2 and Tier 3 interventions over the course of a school year; however, a push has been made in the

academic world to begin placing middle school and high school students directly into the intervention tier(s) most needed by them as soon as possible based upon their performance in previous years (Fuchs, Fuchs & Compton, 2010). With schools acknowledging that interventions are required to combat student amotivation and declining achievement, multiple programs are gaining attention across the country, including WhyTry ("WhyTry Resilience Education", 2017).

WhyTry ("WhyTry Resilience Education", 2017) is a program created by former social worker Christian Moore designed to foster resiliency school-wide ("WhyTry Resilience Education", 2017). Its stated goals include: building relationships between teachers and students, providing multisensory learning demonstrating the relevance of what is being taught, and reframing problems in life to help students become resilient ("WhyTry Resilience Education", 2017). WhyTry ("WhyTry Resilience Education", 2017) is broken up into 10 chapters that can be delivered as a full course, pick-and-choose 10-minute, or one-hour modular lessons. The modules focus on problem solving and raising self-worth and motivation through activities designed to foster social and emotional support in a way that can be used through all three RTI tiers (Alvarez & Anderson-Ketchmark, 2009). Trial research indicates that WhyTry ("WhyTry Resilience Education", 2017) is effective in raising student motivation and achievement, but more studies are needed (Alvarez & Anderson-Ketchmark, 2009).

The purpose of this study was to measure the effectiveness of the WhyTry ("WhyTry Resilience Education", 2017) intervention on student academic motivation as measured by the MSLQ (Pintrich, 1991). With the adoption of the CCSS, students are being asked to perform grade-level work, but high school graduation rates in some states are going down (Betts et al., 2016). A way needs to be found to counteract dropping student academic performance and graduation rates, lest the rates potentially continue to fall after the raising of standards. Studies

have indicated that intrinsic motivation is key to academic success, but there is little research on how to make students intrinsically motivated (Taylor et al., 2014). The WhyTry ("WhyTry Resilience Education", 2017) program is a modular Tier 1, 2, and/or 3 intervention that aims to motivate students to find a solution rather than dwell on a problem. Relatively little literature exists concerning WhyTry's ("WhyTry Resilience Education", 2017) success at increasing student motivation, therefore this study seeks to close this gap.

Method

Research Question

Does the WhyTry ("WhyTry Resilience Education", 2017) intervention impact the academic motivation of 9th grade high school English students?

Hypothesis

As research suggests motivation is a key factor in academic achievement, it was predicted that the WhyTry ("WhyTry Resilience Education", 2017) intervention would result in increased student academic motivation as measured by the motivation module of the MSLQ (Alvarez & Anderson-Ketchmark, 2009; Froiland & Worrell, 2016; Pintrich, 1991; Pintrich et al., 1993; Saeed & Zyngier, 2012; Tylour et al., 2014).

Research Design

The research in this study had a quantitative nonequivalent groups pre-test – post-test quasi-experimental design. Two classes that were as homogenous as possible were selected – the control group received normal instruction and the treatment group received normal instruction with the addition of the WhyTry ("WhyTry Resilience Education", 2017) intervention. The level of student motivation was measured using the motivation module of the MSLQ (Pintrich, 1991) at the beginning and end of the study.

Independent variable. The independent variable in this study was the WhyTry ("WhyTry Resilience Education", 2017) intervention, which is a modular program delivered in 10-minute activities and/or one-hour lessons designed to help students reflect socially and emotionally to address problems in their lives and increase motivation in life and school (Alvarez & Anderson-Ketchmark, 2009).

Dependent variable. The dependent variable in this study was the level of student academic motivation. For the purposes of this study, the definition of academic motivation is aligned with the six subscales attributed to motivation in the MSLQ (Pintrich, 1991). The 31 questions of the motivation module of the MSLQ measure the following aspects of motivation: (a) intrinsic goal orientation, (b) extrinsic goal orientation, (c) task value, (d) control beliefs about learning, (e) self-efficacy for learning and performance, and (f) test anxiety (Pintrich, 1991).

Setting & Participants

The setting of this study is a high school located in Central California. The student body is composed of approximately 2550 students, with approximately 86% identifying as Hispanic, 8% white, 3% Asian, 1% black, and 2% mixed race or other. Of the entire student body, 85% report speaking a language other than English at home (School Accountability Report Card, 2017). Also significant is that 70% of the student body qualifies for the free or reduced lunch program due to low socioeconomic status (School Accountability Report Card, 2017). The treatment group and control group represent a purposeful convenience sample that was selected to provide homogenous groups using the following characteristics: (a) the same English co-teachers, (b) grade level, (c) class size, (d) racial makeup, (e) gender makeup, and (f) proportion of special population students.

Treatment group. The treatment group was a co-taught 9th grade English class occurring during the school's third block. The class had the same two teachers as the control group and consisted of 31 students – 22 males (70.97%) and nine females (29.03%). All 31 students were Hispanic. Of the 31 students, 21 were mainstream (i.e., grade normative), two students were special education (SPED) students, two students were English Language Learners (ELLs,) and four students were both SPED and ELL.

Control group. The control group was a co-taught 9th grade English class occurring during the school's sixth block. The class had the same two teachers as the treatment group and consisted of 32 students – 19 males (59.38%) and 13 females (40.63%). Demographically, 30 students were Hispanic (93.75%), one was Asian (3.13%), and one was black (3.13%). Of the 32 students, 21 students were mainstream, (i.e., grade normative), five students were SPED students, four students were ELLs, and two students were both SPED and ELL.

Measures

After initially evaluating and considering many various measures/scales for student academic motivation, the MSLQ by Pintrich (1991) was decided upon (see Appendix A). It is a self-report survey of Likert-type statements with a 31-item module on motivation that requires students to engage in metacognition (i.e., thinking about their thinking). The motivation module of the MSLQ includes assessment scales for the following: (a) intrinsic goal orientation, (b) extrinsic goal orientation, (c) task value, (d) control of learning beliefs, (e) self-efficacy for learning and performance, and (f) test anxiety (Pintrich, 1991). Students are asked to rate statements from 1 (not true about them) to 7 (very true of them). Examples of statements include: (a) When I take a test I think about how poorly I am doing compared with other students, and (b) It is important for me to learn the course material in this class (Pintrich, 1991). Administration of

the motivation module occurred once at the beginning and once at the end of the intervention period. The estimated time for student completion was 20-30 minutes each administration (Pintrich et al., 1993).

Validity. The motivation scales portion of the MSLQ (Pintrich, 1991) used has high validity (see Appendix A) in terms of evidence based on content, internal structure, and predictive relationships (Credé & Phillips, 2011; Pintrich et al., 1993). A study of the MSLQ (Pintrich, 1991) showed its six motivation scales to have high predictive validity with many positive correlations (Credé & Phillips, 2011; Pintrich et al., 1993). Four of the six scales showed a positive correlation, demonstrated by intrinsic goal orientation ($r = .25$), task value ($r = .22$), control of learning beliefs ($r = .13$), and self-efficacy for learning and performance ($r = .41$) (Credé & Phillips, 2011; Pintrich et al., 1993). The positive correlation indicated a predictability between the MSLQ (Pintrich, 1991) and student grades (Credé & Phillips, 2011; Pintrich et al., 1993). Extrinsic goal orientation ($r = .02$) was weak, but inverse to extrinsic motivation (Pintrich, et al., 1993). Test anxiety ($r = -.27$) was negatively correlated indicating that students with less anxiety on average performed better on tests (Credé & Phillips, 2011; Pintrich et al., 1993). Therefore, the motivation scales of the MSLQ have high validity.

Reliability. A study of the MSLQ (Pintrich, 1991) by Pintrich and colleagues (1993) reported good internal reliability (Credé & Phillips, 2011; Pintrich et al., 1993). Two of the six motivation scales showed excellent reliability, demonstrated by task value ($\alpha = .90$) and self-efficacy for learning and performance ($\alpha = .91$) while test anxiety ($\alpha = .80$) showed good reliability (Credé & Phillips, 2011; Pintrich et al., 1993). Intrinsic goal orientation ($\alpha = .74$) indicated acceptable reliability while extrinsic goal orientation ($\alpha = .62$) and control of learning beliefs ($\alpha = .68$) demonstrated only questionable reliability, although this is potentially the result

of these three scales having up to 50% fewer items than the other scales (Credé & Phillips, 2011; Pintrich et al., 1993). There are, however several outside sources of potential measurement error to consider (Credé & Phillips, 2011; Pintrich et al., 1993). As the MSLQ (Pintrich, 1991) is a self-report assessment, numerous physical and mental factors have the potential to influence participant responses, including but not limited to: (a) room temperature, (b) lighting, (c) noise, (d) mood, (e) fatigue, (f) and illness (McMillan, 2016). Although steps were taken to make the test and re-test environment similar to each other in terms of time of day and lighting in the testing environment (e.g., should the blinds be shut and interior lights on) the remaining potential measurements errors are possible, possibly resulting in a degree of unreliability. With generally good internal reliability and the MSLQ Manual (Pintrich, 1991) to assist in interpretation of results, data collected should be as reliable as it can be (Credé & Phillips, 2011; Pintrich, 1991; Pintrich et al., 1993).

Intervention

WhyTry ("WhyTry Resilience Education", 2017) is a relatively recent and unique intervention program in that it is completely modular and can be tailored to grades K-12 and administered as a Tier 1, 2, or 3 intervention under the RTI model (Alvarez & Anderson-Ketchmark, 2009; Hughes & Dexter, 2011). WhyTry ("WhyTry Resilience Education", 2017) is broken up into 10 chapters that may be used singly or in combination with each other as well as delivered in their entirety or in a pick-and-choose fashion in either 10-minute or one-hour lessons. The modules focus on problem solving and raising self-worth and motivation through activities designed to foster social and emotional support (Alvarez & Anderson-Ketchmark, 2009). As the program is designed for grades K-12, the researcher selected a chapter dealing with motivation most applicable to a 9th grade classroom, breaking it up into the suggested 10-minute

activities, and implementing the chapter with the treatment group at the beginning of each class session over the course of three weeks.

Procedures

The MSLQ (Pintrich, 1991) was administered to the control and treatment group at the beginning of the control and treatment group class periods on the same day the class before the intervention began. The intervention was from WhyTry's second chapter, "Reality Ride," which focuses on identifying attitudes and emotions leading to self-defeating tendencies and then brainstorming ways to become motivated and overcome them ("WhyTry Resilience Education", 2017). Over the course of three weeks, the treatment group received eight 10-minute lessons across eight classes. The lessons were delivered to the treatment group in lieu of the normal warm-up activity at the beginning of each class, and minimal instructional time was lost as the end of class is often an activity where anything unfinished is homework. Aside from the administration of the MSLQ (Pintrich, 1991), the control group received the same instruction as the classes not in the study (i.e., the regular warm-up and more time at the end of class to work on the final activity before it becomes homework.) At the end of the eight lessons across three weeks, the MSLQ (Pintrich, 1991) was administered to both the treatment and control groups again on the same day.

Fidelity. To ensure fidelity, the co-teacher not involved with the intervention was verifying the administration of the intervention to the treatment group, the absence of the intervention with the control group, and the administration of the MSLQ (Pintrich, 1991) to both groups. For the treatment group, the co-teacher verified that the WhyTry ("WhyTry Resilience Education", 2017) teacher script and lesson plan that accompanies the "Reality Ride" chapter was followed by the primary teacher. The co-teacher also verified that the normal warm-up

activity and instruction being given to all classes besides the treatment group occurred with the control group. The co-teacher was expected to be in every class for both the control and treatment groups during the three-week study (a total of 18 class periods,) with the exception of various Individualized Education Plan (IEP) meetings that they were required to attend during class time. A fidelity checklist (see Appendix B) was used to monitor fidelity and signed off each class that the co-teacher was present and witness to fidelity.

Ethical Considerations

Since WhyTry ("WhyTry Resilience Education", 2017) involves metacognition, it was likely that students in the treatment group had to internally bring up negative memories or thoughts in their lives in the process of finding positive ones. Open dialogue was encouraged with the overt intent to help students help themselves, up to and including time speaking with the teacher or school counselor outside of class should students feel the need for counseling (Alvarez & Anderson-Ketchmark, 2009). As previously covered in the above procedures section, to mitigate the potential loss of instructional time for the treatment group, the WhyTry ("WhyTry Resilience Education", 2017) lessons took the place of the normal warm-up at the beginning of each class, and as the activities at the end of class typically become homework if they are not finished, only several minutes of in-class work time on the classwork/homework were lost each class during the study. All student work and data was kept confidentially and anonymously in the study, and no information suggesting child abuse came to light that necessitated the teacher(s) act in legal accordance with the laws of mandated reporting.

Validity threats. Although studies (Credé & Phillips, 2011; Pintrich et al., 1993) have shown that the MSLQ (Pintrich, 1991) has high validity in its motivation scales, there are potential validity threats. It was possible and reality that some students would be absent on at

least one day during the study and would miss an intervention lesson unless they came in on their own time to be walked through what they missed with the teacher. Absences also lead to mortality during the second administration of the MSLQ (Pintrich, 1991) and making it up during lunch or after school would have produced a different testing environment from the rest of the control and treatment groups. While the control and treatment groups were selected for being as homogenous to one another as possible, there still was the possibility that extraneous factors were affecting one group more than the other, which could have led to a depression or inflation of intervention results; for example, some students' lives may involve additional stressors such as having to cook/clean/take care of siblings at home, being in foster care, belonging to a gang, or staying out of the house to avoid witnessing domestic disputes. Any data or legal documentation of the above, if it exists, is not available to teachers. It is possible that the control or treatment group had a higher percentage of students with a rougher home life, but that was beyond teacher and researcher control.

Data Analyses

All data were entered into the Statistical Package for the Social Sciences® (SPSS®) for Windows, version 24.0.0 (IBM Corp., 2016). No names or identifying information were included in the data analysis. Before analyses were conducted all data was cleaned to ensure no outliers were present (Dimitrov, 2012). During data collection 15 students were absent (8 from the treatment group and 7 from the control group) and thus dropped from the study. After cleaning the data, independent and paired samples t-tests were conducted to determine the significant difference in motivation between the two means of the pre-intervention and post-intervention scores for each scale on the MSLQ (Pintrich, 1991). Further, before interpreting the analytical output, Levene's Homogeneity of Variance was examined to see if the assumption of equivalence

had been violated (Levene, 1960). If Levene's Homogeneity of Variance (Levene, 1960) was not violated (i.e., the variances were equal across groups), data was to be interpreted for the assumption of equivalence; however, if the variances were not equal across groups the corrected output would be used for interpretation.

Results

To determine whether or not the WhyTry ("WhyTry Resilience Education", 2017) intervention had any effect on the academic motivation of the treatment group, various analyses were conducted. Independent samples t-tests were conducted on the whole sample ($n = 48$) across the six subscales of the MSLQ (Pintrich, 1991) for both the pre and post-test responses. Across all six subscales Levene's Homogeneity of Variance (Levene, 1960) was not violated ($p > .05$), meaning that the variance between groups was not statistically different and no correction was needed and the t-tests showed non-significant differences between the mean scores on the pre-tests and post-tests between the two groups (see Table 1). Therefore, no statistically-significant results were found, and there were no considerable differences on either the pre or post-test for both groups (i.e., treatment and control).

Table 1

Results of Independent Samples T-Tests

MSLQ Subscales	Mean	SD
Pre-Test Intrinsic Goal Orientation		
Control	4.32	1.25
Treatment	4.39	1.17
Post-Test Intrinsic Goal Orientation		
Control	4.33	1.35
Treatment	4.67	1.36
Pre-Test Extrinsic Goal Orientation		
Control	5.06	1.69
Treatment	5.10	1.63
Post-Test Extrinsic Goal Orientation		
Control	5.21	1.63
Treatment	5.21	1.56
Pre-Test Task Value		
Control	4.92	1.20
Treatment	4.67	1.34
Post-Test Task Value		
Control	4.84	1.20
Treatment	4.92	1.34
Pre-Test Control of Learning Beliefs		
Control	4.95	1.39
Treatment	5.34	1.20
Post-Test Control of Learning Beliefs		
Control	5.15	1.34
Treatment	5.19	0.98
Pre-Test Self-Efficacy for Learning and Performance		
Control	4.57	1.41
Treatment	4.83	1.40
Post-Test Self-Efficacy for Learning and Performance		
Control	4.54	1.37
Treatment	4.99	1.30
Pre-Test Test Anxiety		
Control	4.38	1.49
Treatment	3.68	1.18
Post-Test Test Anxiety		
Control	4.23	1.58
Treatment	3.70	1.29

Note. SD = Standard Deviation

After determining the differences between pre and post-test scores between groups, paired t-tests across the six subscales of the MSLQ (Pintrich, 1991) were conducted for both groups (i.e., treatment and control) to determine if participants' mean scores from pre to post-test were significantly different within each group (See Table 2). Although the mean scores between the control and treatment groups were different, the results indicated that the intervention did not provide consistent growth within the subscales of the MSLQ (Pintrich, 1991). Therefore, no statistically-significant results were found ($p > .05$), nor were there considerable differences on either the pre or post-test for both groups (i.e., treatment and control).

Table 2

Results of Paired T-Tests

MSLQ Subscales	Mean	SD	<i>t</i>	Sig.
Intrinsic Goal Orientation				
Control	-.01	.96	-.05	.96
Treatment	-.28	1.26	-1.09	.29
Extrinsic Goal Orientation				
Control	-.15	.94	.76	.45
Treatment	-.10	1.56	-.33	.75
Task Value				
Control	.083	.76	.54	.60
Treatment	-.24	1.07	-1.12	.28
Control of Learning Beliefs				
Control	-.20	1.12	-.86	.40
Treatment	.16	.79	.97	.35
Self-Efficacy for Learning and Performance				
Control	.03	.86	.17	.87
Treatment	-.17	.95	-.86	.40
Test Anxiety				
Control	.14	.97	.72	.48
Treatment	-.03	1.27	-.10	.92

Note. SD = Standard Deviation. *t* = T-Value. Sig. = Calculated Probability.

Discussion

Today's students are ideally being prepared to become tomorrow's leaders. With standards rising and occurrences of academic performance dropping, it is important to find a way to push students towards success (Alliance for Excellent Education, 2013; Betts et al., 2016; Fan & Wolters, 2012). As academic performers are engaged and engagement is driven by motivation, then finding a way to motivate students academically is necessary (Deci et al., 1991; Froiland & Worrell, 2016; Fullan & Quinn, 2016; Gillen-O'Neel & Fuligni, 2012; Taylor et al., 2014). One way to motivate students is through interventions designed to target adolescent motivation in an attempt to increase achievement.

This study was conducted to determine the impact of the WhyTry intervention ("WhyTry Resilience Education", 2017) on the academic motivation of a 9th grade high school English class. An intervention related to academic motivation was chosen in light of studies suggesting that motivation can be a key indicator of academic success (Saeed & Zyngier, 2012; Taylor et al., 2014). With the increasing manifestation of learned helplessness (Seligman, 1971) in today's students as well as other causes of amotivation (e.g., boredom, lack of perceived task value), a way must be found to bolster student motivation to increase their chances of academic success (Skinner, Furrer, Marchand, & Kindermann, 2008). Any steps taken to help students succeed academically not only increase their chances of a better future, but saves taxpayers money by making high school graduates productive members of society rather than a drain on resources (Alliance for Excellent Education, 2013; Hughes & Dexter, 2011). The WhyTry ("WhyTry Resilience Education", 2017) intervention was specifically selected for its focus on attempting to increase student motivation.

Both the control group and treatment group were measured using the MSLQ (Pintrich, 1991) at the beginning and end of the study. During the study the control group received the typical warm-up activity as usual; whereas, the treatment group received eight ten-minute WhyTry (“WhyTry Resilience Education”, 2017) lessons in place of the usual warm-ups. Based upon findings that motivation is tied to academic achievement, the hypothesis was that the intervention would raise the academic motivation of the treatment group as measured by the MSLQ (Alvarez & Anderson-Ketchmark, 2009; Froiland & Worrell, 2016; Pintrich, 1991; Pintrich et al., 1993; Saeed & Zyngier, 2012; Taylour et al., 2014).

Although the WhyTry (“WhyTry Resilience Education”, 2017) intervention was predicted to raise student academic motivation as measured by the MSLQ (Pintrich, 1991), the results did not support the hypothesis. Data analyzed via SPSS® (SPSS, 2016) did not find statistically-significant differences within and between the treatment and control group across the: (a) intrinsic goal orientation, (b) extrinsic goal orientation, (c) task value, (d) control of learning beliefs, (e) self-efficacy for learning and performance, and (f) test anxiety subscales of the MSLQ (Pintrich, 1991). While the data suggests that the one module of the WhyTry intervention (“WhyTry Resilience Education”, 2017) did not have a measurable impact, the researcher noted that students in the treatment group were visibly engaged during the intervention lessons. Therefore, beyond quantitative studies a mixed-methods study may want to be conducted in the future as well.

Even though the results of how significantly motivation impacts student achievement have varied, enough studies have been conducted to conclude that motivation plays a key role (Deci et al., 1991; Froiland & Worrell, 2016; Gillen-O’Neel & Fuligni, 2012; Legault et al., 2006; Pintrich et al., 1993; Saeed & Zyngier, 2016; Taylor et al., 2014). The MSLQ (Pintrich,

1991) used in this study served as a psychometrically sound tool to measure student academic motivation and would be an appropriate choice in future studies (Credé & Phillips, 2011; Pintrich et al., 1993). Although this study as it was implemented did not find the WhyTry (“WhyTry Resilience Education”, 2017) intervention to be impactful, addressing the limitations in future studies may find significance in ways this study could not.

Limitations and Future Studies

Limitations for this study include the sampling method and sample size as well as the short duration of the intervention. The control and treatment group were selected for being as homogenous as possible, but were convenience sampled due to their availability to the researcher. Although the two groups had a total of 63 students on the roster, after the data was cleaned the two groups had 48 students between them. The control group consisted of 25 students and the treatment group consisted of 23 students. All of the students removed from the study were a result of absences during pre and/or post-data collection; between a combination of a heavy flu season and the proximity of the post-data collection period to the beginning of the school’s Spring Break. While WhyTry (“WhyTry Resilience Education”, 2017) is designed to be modular and can be delivered in a pick-and-choose fashion, perhaps the largest limitation of the study was that only one module out of 11 was delivered due to time constraints.

Given the established importance of raising student motivation, future quantitative studies are required. Studies on WhyTry (“WhyTry Resilience Education”, 2017) should be conducted on a much larger scale (e.g., school or district-wide) with students in classes or homerooms that lend themselves to integrating the WhyTry (“WhyTry Resilience Education”, 2017) curriculum. The MSLQ (Pintrich, 1991) remains a strong tool for measuring student academic motivation in a standardized way, but it would be most effective with a large sample

size of students that have been exposed to the complete WhyTry (“WhyTry Resilience Education”, 2017) intervention of 11 modules (Pintrich et al., 1993).

In summation, studies must continue to be conducted on interventions designed to raise student academic motivation (Skinner et al., 2008). The present lack of a consistent measure for academic motivation is a hindrance. Without a standardized measure such as the MSLQ (Pintrich, 1991) employed by this study, the effectiveness of future studies in relation to one another will be difficult to comparatively quantify; necessitating a concerted effort to focus not only on what is studied, but how it is measured. As studies continue, the existing literature gap on the effects of various interventions on student academic motivation should narrow. Although this study’s hypothesis was not supported by its findings, future studies on WhyTry’s (“WhyTry Resilience Education”, 2017) effectiveness that address the limitations of this study may yet find it to be a valuable intervention that can increase student academic motivation and achievement.

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Appendix A

The Motivated Strategies for Learning Questionnaire, Part A (Pintrich, 1991)

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Part A. Motivation

The following questions ask about your motivation for and attitudes about this class. **Remember there are no right or wrong answers, just answer as accurately as possible.** Use the scale below to answer the questions. If you think the statement is very true of you, circle 7; if a statement is not at all true of you, circle 1. If the statement is more or less true of you, find the number between 1 and 7 that best describes you.

	1	2	3	4	5	6	7						
	not at all true of me						very true of me						
1.	In a class like this, I prefer course material that really challenges me so I can learn new things.						1	2	3	4	5	6	7
2.	If I study in appropriate ways, then I will be able to learn the material in this course.						1	2	3	4	5	6	7
3.	When I take a test I think about how poorly I am doing compared with other students.						1	2	3	4	5	6	7
4.	I think I will be able to use what I learn in this course in other courses.						1	2	3	4	5	6	7
5.	I believe I will receive an excellent grade in this class.						1	2	3	4	5	6	7
6.	I'm certain I can understand the most difficult material presented in the readings for this course.						1	2	3	4	5	6	7
7.	Getting a good grade in this class is the most satisfying thing for me right now.						1	2	3	4	5	6	7
8.	When I take a test I think about items on other parts of the test I can't answer.						1	2	3	4	5	6	7

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	not at all true of me						very true of me
9. It is my own fault if I don't learn the material in this course.	1	2	3	4	5	6	7
10. It is important for me to learn the course material in this class.	1	2	3	4	5	6	7
11. The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade.	1	2	3	4	5	6	7
12. I'm confident I can learn the basic concepts taught in this course.	1	2	3	4	5	6	7
13. If I can, I want to get better grades in this class than most of the other students.	1	2	3	4	5	6	7
14. When I take tests I think of the consequences of failing.	1	2	3	4	5	6	7
15. I'm confident I can understand the most complex material presented by the instructor in this course.	1	2	3	4	5	6	7
16. In a class like this, I prefer course material that arouses my curiosity, even if it is difficult to learn.	1	2	3	4	5	6	7
17. I am very interested in the content area of this course.	1	2	3	4	5	6	7
18. If I try hard enough, then I will understand the course material.	1	2	3	4	5	6	7
19. I have an uneasy, upset feeling when I take an exam.	1	2	3	4	5	6	7

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	not at all true of me						very true of me
20. I'm confident I can do an excellent job on the assignments and tests in this course.	1	2	3	4	5	6	7
21. I expect to do well in this class.	1	2	3	4	5	6	7
22. The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible.	1	2	3	4	5	6	7
23. I think the course material in this class is useful for me to learn.	1	2	3	4	5	6	7
24. When I have the opportunity in this class, I choose course assignments that I can learn from even if they don't guarantee a good grade.	1	2	3	4	5	6	7
25. If I don't understand the course material, it is because I didn't try hard enough.	1	2	3	4	5	6	7
26. I like the subject matter of this course.	1	2	3	4	5	6	7
27. Understanding the subject matter of this course is very important to me.	1	2	3	4	5	6	7
28. I feel my heart beating fast when I take an exam.	1	2	3	4	5	6	7
29. I'm certain I can master the skills being taught in this class.	1	2	3	4	5	6	7
30. I want to do well in this class because it is important to show my ability to my family, friends, employer, or others.	1	2	3	4	5	6	7
31. Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this class.	1	2	3	4	5	6	7

Appendix B

Fidelity Check Sheet

FIDELITY CHECK SHEET			
Study:	WhyTry Intervention	Min. Fidelity:	9 sessions X 20% = 1.8 sessions
Facilitator:	[REDACTED], co-teacher	Observer:	[REDACTED] co-teacher

Date	Treatment/Control	Signature
02/27/2018	Treatment	[REDACTED]
02/28/2018	Control	[REDACTED]
03/01/2018	Treatment	[REDACTED]
03/02/2018	Control	[REDACTED]
03/07/2018	Control	[REDACTED]
03/08/2018	Treatment	[REDACTED]
03/09/2018	Control	[REDACTED]
03/12/2018	Treatment	[REDACTED]
03/12/2018	Control	[REDACTED]
03/13/2018	Treatment	[REDACTED]
03/14/2018	Control	[REDACTED]
03/15/2018	Treatment	[REDACTED]
03/16/2018	Control	[REDACTED]
03/19/2018	Treatment	[REDACTED]
03/19/2018	Control	[REDACTED]
03/20/2018 03/21	Control	[REDACTED]
03/22/2018	Treatment	[REDACTED]
03/23/2018	Control	[REDACTED]