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All manuscripts have been peer-reviewed, accepted, and endorsed by the International Council of Professors of Educational Leadership (ICPEL) as a significant contribution to the scholarship and practice of school administration and K-12 education



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From the Editor

This issue of Education Leadership Review of Doctoral Research (ELRDR) is published in recognition of the extensive work that recent doctoral graduates, chairs, and/or committee members complete to augment the field of education leadership and administration. This work represents a sense of optimism for what the future holds and promotes the ongoing quest to continue to focus on research-based findings to enhance the scholarship and practice K12 education and school leadership. With having recently begun the work as Editor of ELRDR, I encourage you to further promote this journal to your colleagues and recent graduate students so that we may continue to support new authors and contribute to recent, innovative, and meaningful work to the field.

In this edition, Erin Lehman, David De Jon, and Mark Baron present their work, *Investigating the Relationship of Standards-Based Grades vs. Traditional-Based Grades to Results of the Scholastic Math Inventory [SMI] at the Middle School Level*. In the era of increased accountability and the need to accurately measure students' learning, the authors' unique findings indicated that higher, positive correlations existed between the SMI and standards-based grades than for traditional grades.

In *Sustaining System-Wide School Reform: Implications of Perceived Purpose and Efficacy in Team Members*, Eric Dueppen and Thomas Hughes recognize the importance of sustainable change. Their study's findings reveal critical aspects about the personal nature of change, while maintaining a focus on leadership efforts. Their findings offer important implications for practice and ongoing research.

Certainly, as leaders and educators are tasked with building relationships and successfully interacting with others, B. P. Finnagan and W. Maulding-Green explore current and aspiring leaders' emotional intelligence competencies in, *The Impact of Trait Emotional Intelligence and Regulation of Emotions for Educational Leaders when Dealing with Emotionally Charged Adults*. The authors' results indicated that current and aspiring leaders tend to possess high emotional intelligence traits, but there are unique areas in which aspiring school leaders can benefit from additional professional learning and experiences.

With having recently begun the work as Editor of ELRDR, I encourage you to further promote this journal to your colleagues and recent graduate students so that we may continue to support new authors and contribute to recent, innovative, and meaningful work to the field.

Sincerely,

Jafeth E. Sanchez, PhD

Editor, Education Leadership Review of Doctoral Research

Investigating the Relationship of Standards-Based Grades vs. Traditional-Based Grades to Results of the Scholastic Math Inventory at the Middle School Level

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Grading is one of teachers' greatest challenges and most important professional responsibilities. Educators are unclear on whether standards-based grades or traditional-based grades do a better job of accurately reflecting what students have learned, so the purpose of this study was to understand the relationship between classroom grades and scores on the Scholastic Math Inventory (SMI) assessment. The individuals were sixth-, seventh-, and eighth-grade mathematics students from five different middle schools in the same district as they took the SMI assessment. There were about 500 students in the standards-based grading system and about 1,900 students in the traditional grading system.

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The purpose of assigning grades to student learning varies from educator to educator. Wormeli (2018) explains that allowing educators to decide how to assign grades to student learning may not be an accurate picture of what students know, understand, and be able to do. Teachers' beliefs in what to grade and to record are significant influences on what a student earns as a grade (Brookhart, 2017; Guskey, 2015; O'Connor 2011). O'Connor (2011) stated, "Teachers develop assessments based on their professional judgment of what is to be assessed and how—a subjective process" (p. 11). Grading practices at the middle school level must change in order to "meet the learning needs and desires of future generations of young adolescents, the core middle school practices must continue to grow and thrive" (Schaefer, Malu, & Yoon, 2016, p. 18).

Traditional grading systems utilize an A, B, C, D, or F or similar scales to denote student understanding of all content standards. In contrast, standards-based grading systems utilize a reporting system based on individual content standards (Guskey, 2015; O'Connor, 2011; Heflebower, Hoegh, & Warrick, 2014). Standards-based grading centers on specific learning standards or goals (Guskey, 2015; Hanover Research, 2014; O'Connor, 2011). "More and more educators are beginning to question traditional grading practices that were developed to sort students into learners and non-learners, not to support learning for all" (Brookhart, 2011, p. 10).

The grading and reporting system have changed throughout the years, most notably the traditional and standards-based grading system. The traditional grading practice tends to lump content with effort and behavior into one letter grade (Brookhart, 2011b). All too often, traditional grading practices in the United States are based on instructional and motivational principles that cause many students to give up in hopelessness and accept failure rather than driving them toward academic success (Stiggins, 2014).

When the standards-based educational reform began in the 1990s, the goal was to replace learning from basic facts to synthesis and application (Shepard, 2009). More recently, the Common Core State Standards for mathematics emphasized conceptual understanding as well as procedural skills and increased rigor of content (Briars & Foster, 2012). Content standards and common assessments improved consistency and coherency in curriculum and instruction, but grades and grading remained in the hands of the individual teacher (Wormeli, 2018).

To make grades more meaningful, issues related to both purpose and reporting format must change as well (Guskey, 2015). Grading often remained subjective. O'Connor (2009) stated,

There is clearly no right answer or perfect grading plan, but for those who teach the same grade or course(s) in the same school and, ideally, in the same school district, it would not be unreasonable to expect that there would be some basic similarities or that discernible patterns would exist across their grading plans. (p. 33)

Grading within mathematics classrooms can be subjective and personal, which leads to inequalities in grading all across the United States (Guskey, 2015). Over the years, mathematics teachers have decided which criteria they should or should not report in terms of student learning: "For more than a century, grades have remained the primary indicator of how well students performed in school and the basis for making important decisions about students" (Guskey, 2015, p. 3). These traditional grading practices persist, resulting in ineffective communication about student achievement and can potentially undermine students' lifelong attitudes towards learning (Bourgeois & Boberg, 2016, p. 15).

Purpose of the Study

Educators are unclear on whether standards-based grades or traditional-based grades do a better job of accurately reflecting what students have learned, so the purpose of this study was to understand the relationship between classroom grades and scores on the Scholastic Math Inventory (SMI) assessment. We investigated the relationship that exists between a traditional or standards-based grading system and achievement on the SMI assessment.

Research Questions

Two research questions guided this study.

1. What is the relationship between SMI scores and end-of-year grades for sixth, seventh, and eighth grade students in a traditional grading system from four middle schools?
2. What is the relationship between SMI scores and end-of-year grades for sixth, seventh, and eighth grade students in a standards-based grading system from one middle school?

Significance of the Study

In order to determine the relationship of standards-based grades vs. traditional-based grades to results of the SMI, the researcher investigated the relationships of grades under a standards-based grading system and a traditional grading system to the SMI scores. The school district is unique in that fact they had one school with a standards-based grading system and the other four schools used a traditional grading system in the middle school mathematics program. This study's result could significantly persuade or dissuade the future implementation of a standards-based grading system at the middle school level in mathematics classrooms.

Literature Review

The current reality of education reflects an era of educational accountability, which drives a new way of viewing grading practices. Leaders of mathematics education must understand the standards-based grading reform, common core state standards, and mathematical accountability to make decisions that are best for the students learning in this era of educational accountability.

Standards-Based Grading Reform

Through the standards-based reform that took place during the 1980s and 1990s, there was a shift from basic skills to higher standards and assessments that required higher order thinking skills and complex performances (Brookhart, 2013). The 1983 *A Nation at Risk* report claimed United States students were falling behind their international counterparts. This study recommended that schools, colleges, and universities adopt more rigorous and measurable standards. It further recommended higher expectations for academic performance and student conduct, and that four-year colleges and universities raise their requirements for admission (NCEE, 1983). During this era of educational accountability based on assessing student achievement of standards became firmly entrenched in the public's mind, along with support for achievement testing and making comparisons (Brookhart, 2013). By the mid-1990s, most states had drafted a set of standards.

Mathematical Accountability

Research shows that students who are not successfully mastering mathematical concepts tend to demonstrate slow or inaccurate retrieval of basic mathematical facts, lean toward impulsivity when solving problems, and have difficulty forming mental representations of mathematical concepts or keeping information in working memory (Heflebower, Hoegh, & Warrick, 2014).

Students need both procedural and conceptual knowledge in order to learn and understand mathematics (NCTM, 2014). Knowledge of the procedures and formulas are critical to overall proficiency in mathematics, especially when individual students learn mathematical strategies (Hofman, Visser, Jansen, Marsman, & van der Maas, 2018). Also, exploration of the concepts through concrete experiments and manual manipulation is vital to students' overall understanding of the "why" in mathematics instruction. It is necessary to provide focused instruction that moves students from the concrete to the abstract and then to the application of the concept (Marzano et al., 2003).

Grading practices teachers use may also jeopardize the reliability of grades and weaken the link between grades and academic achievement (Welsh, D'Agostino, & Kaniskan, 2013). With the movement toward 21st Century Skills emphasizing creativity, critical thinking, and communication towards rigorous tasks, educators must change the way they historically have assessed. Fundamentally, more accurate grading practices must be adopted to directly capture more complex levels of achievement: the ability to solve non-routine problems, to analyze data and reason from evidence, to communicate effectively both orally and in writing, and to frame and conduct scientific investigations (Shepard, 2009).

Essence of Grading

Simon and Bellanca (1976) emphasized how grades are a key mechanism in the political processes of schooling, which differentially sorts students according to compliance in the form of academic performance and behavior. Grading originally determined which students continue to the next level, and eventually was a sorting mechanism that allowed educators to rank students and establish classroom curves and hierarchies (Brookhart, 2011a; Dilendik, 1978). Tyack and Tobin (1994) concurred,

The graded elementary school—in which the curriculum is divided into yearlong batches, students are sorted according to academic proficiency and age, and individual teachers instruct them in self-contained classrooms—is now so familiar that it is hard to imagine a time when it did not exist or to conceive of alternatives. (p. 457)

Purpose of Grading

Purposes differ when it comes to grading. Parents' major focus is often on classroom grades, report cards, and honor roll (Reeves, 2011). Reeves (2011) described a study conducted by Fairfax County Public Schools that found that 89% of colleges use grades to compare applicants, 39% of colleges require a minimum grade-point average, and 33% of colleges require a minimum grade-point average for merit scholarships. When it comes to grading and reporting, stakeholders illustrate a wide variety of need and purpose. Wormeli (2006b) found six reasons for grading:

- To document student and teacher progress
- To provide feedback to the student and family, and the teacher
- To inform instructional decisions

- To motivate students
- To punish students
- To sort students

However, Guskey and Bailey (2010) explained why educators assign grades or marks on students' work:

- To communicate information about students' achievement in school to parents and others
- To provide information to students for self-evaluation
- To select, identify, or group students for certain educational paths or programs
- To provide an incentive for students to learn
- To evaluate the effectiveness of instructional programs
- To provide evidence of students' lack of effort or inappropriate responsibility

While educators may agree that all of these purposes may be legitimate, they seldom agree on which purpose is most important (Guskey, 2015). Guskey and Bailey (2010) suggested identifying who the necessary stakeholders are, otherwise, the communication of the assessments and grades will be unsuccessful in their attempt to meet any of the different purposes. O'Connor (2011) believed "the primary purpose of grades is to communicate about student achievement, with achievement being defined as performance measured against accepted published standards and learning outcomes" (p. 7).

Austin and McCann argued that when educators do not agree on the primary purpose of grades, they often try to address all of these purposes with a single reporting device, usually a report card, and end up achieving none very well (as cited in Guskey, 2015). O'Connor (2009) believed "purpose is like a compass—it provides direction" (p. 15). The basic problem with grades is they serve so many purposes, one letter or number symbol must carry many types of information (achievement, effort, behavior, etc.) in the grade which makes it very difficult to clearly understand what grades mean (O'Connor, 2009).

Allen (2005) suggested that validity is at the heart of effective grading, more specifically, the validity of the learning assessed and the validity of the communication of that assessment to others. Essentially, educators need to make sure assessments are reliable and valid, and that they communicate the results to necessary stakeholders. However, it is easy to overlook the multitude of meanings or purposes assigned to grades. Educators may have one purpose for grades, while parents may feel the grades have a different purpose, and students may ascribe yet another purpose (Brookhart, 2013; Stiggins, 2014). Without validity and a clear purpose, grading loses its usefulness.

Educators at various levels assess for many different reasons. At the instructional level teachers identify the needs of individual students, identify the needs of a class, group students, grade them, evaluate instruction, and evaluate themselves as teachers (Stiggins, 2014). However, assessments need to be reliable and valid (Marzano, 2006). Useful assessments provide teachers with the necessary data to understand which students are struggling in specific areas of the curriculum or which students need enrichment.

Students may learn many things in the classroom, but the primary objective is for students to learn academic content knowledge of a particular subject (Allen, 2005). The major reason for grades then, is to create a public record of the student's academic achievement that can accurately and effectively communicate to others the level of understanding of a subject a student has mastered (Guskey & Bailey, 2010). Wormeli (2006a) claimed,

A grade represents a clear and accurate indicator of what a student knows and is able to do—mastery. With grades, we document the progress of students and our teaching, we provide feedback to students and their parents, and we make instructional decisions regarding the students. (p. 103)

Traditional Grading

Grades and report cards are a primary source of information about children’s learning strengths, areas of struggle, and strategies to promote success at home (Guskey & Jung, 2009). Brookhart (2011b) explained conventional grading practices as one grade that sums up achievement in a subject and that one grade also often includes effort and behavior. Therefore, one letter grade representing achievement actually lumps in behavior and effort. This traditional grading system oftentimes includes averages of assessments, behavior, and other topics teachers include in the grade book (O’Connor, 2011). Instead of being a primary source of information, this system is not often an accurate representation of student knowledge. O’Connor (2009) states, “The focus of traditional grading practices is to sort, select, and justify” (p. 12). A traditional grading system of A, B, C, D, F scales has been dominant in most secondary and postsecondary schools. High schools tend to rely on letter/number grades for calculating Grade Point Average (GPA) and class rank, both of which impact college admission (Wormeli, 2018). However, traditional report cards that record only a single grade for each subject area seldom have detailed information regarding student progress and learning (Guskey & Jung, 2009).

Standards-based Grading

A standards-based report card centered on carefully articulated learning standards provides necessary stakeholders with the specific feedback required to ensure that improvement efforts are appropriately focused (O’Conner, 2017). Standards-based grading assesses students only on their academic performance and proficiency, not on any behavioral factors (Hanover Research, 2014). Marzano (2006) believed the most important purpose of grades is frequent, detailed feedback and, therefore, the best reference point must be specific objectives, standards, or other learning goals in which a standards-based system serves this purpose.

The primary goal of a standards-based system is for all students to “meet standards,” that is, to be competent or proficient in every aspect of the curriculum (O’Connor, 2011, p. 2). Standards-based progress reports differ from traditional letter grade, percentage, narrative, or pass/fail report cards by requiring teachers to report student performance levels on specific educational goals instead of broad content areas (Welsh, D’Agostino, & Kaniskan, 2013). A standards-based report card allows teachers to report on nonacademic and academic elements separately (Guskey & Bailey, 2010; Iamarino, 2014). Furthermore, a standards-based report card breaks down each subject area or course into specific elements of learning (Guskey & Bailey, 2010).

A standards-based report card identifies the specific learning goals within the curriculum to ensure appropriate rigor. Today’s standards and accountability movement, along with its counterpart, standards-based grading, leads the way to learning-focused grading (Brookhart, 2011a). Iamarino (2014) concludes, “A teacher using a standards-based system of evaluation is better able to determine a student’s grade based on the single most important aspect of education—how well the student comprehends the content of the course” (p. 2).

A standards-based grading system also communicates more detailed information about student learning progress with regard to those goals to bring about higher levels of success. O’Connor (2011) believed “the primary purpose of grades is communication about achievement, with achievement being defined as performance measured against accepted published standards and learning outcomes” (p. 7). A standards-based grading system seeks to saturate grades with specific meanings that are easy for students, parents, and teachers to understand (Hanover Research, 2014).

This section examined the different views regarding the purpose and audience for grading. It described the traditional grading practices and standards-based grading practices. With this understanding of the essence of grading, the following section discusses existing grading practices in terms of product, process, progress, and positions.

Existing Grading Practices

This section explains the grading inequalities that show inaccurate measures of student performance. This section also describes existing grading practices in terms of product, process, progress, and positions.

Most classroom teachers today are unprepared to meet the increasingly complex assessment challenges they face in the classroom (Stiggins, 2014). Often, “grades are inferences, personal interpretations on the part of the teacher, not infallible truths about students’ mastery” (Wormeli, 2006b, p. 95). The current trend is to place students in harm’s way of the ongoing mis-measurement of their achievement in the classroom (Stiggins, 2014). Indeed, Marzano (2000) believed “grades are so imprecise they are almost meaningless” (p. 1). However, teachers often say they are striving to be as objective as possible in their assessment and grading (O’Connor, 2011). Objectivity is difficult to maintain.

Teachers draw from many different sources of evidence in determining a student’s grade. Most reporting forms allow teachers to assign only one grade to each student for each subject area or course (Guskey, 2015). This reporting format compels teachers to merge scores from major exams, compositions, projects, and reports, along with evidence from homework, punctuality in turning in assignments, class participation, work habits, and effort (Guskey, 2015). “We err when we attach too much self-worth and celebration to so fleeting a moment, so inaccurate a tool, so subjective an overworked teacher’s judgment” (Wormeli, 2006b, p. 95). The product is often “a hodgepodge grade that includes elements of achievement, attitude, effort, and behavior” (Guskey, 2015, p. 74).

Inequalities

McMillan, Myran, and Workman (2002) studied over 900 teachers in grades 3-5 and found that most elementary teachers used a multitude of factors in grading students. The assortment of factors included academic performance, behaviors, grade distributions, norm-referenced grade interpretations, and zeros. The following grading practices prevent grades from being accurate measures of students’ performance (Hanover Research, 2011):

- Using a points system and averages
- Using zeros as a punishment
- Grading homework and other formative assignments
- Grading on a curve
- Allowing extra credit
- Grading for behavioral issues
- Incorporating teacher expectations and judgments into grades

Points-based grading puts the focus on numbers, rather than communication. Points are the source for the final grades and often no comprehensive system exists to determine the integrity of the methods utilized to determine the points (Iamarino, 2014). The range in scores is a tremendous source of error associated with the 100-point scale (Marzano, 2010). Averaging in a points system that values all assignments equally can create a situation where a few bad scores inaccurately skew

a student's final grade (Hanover Research, 2014). "Averaging grades, no matter the distance between the two or more scores, decreases accuracy" (O'Connor & Wormeli, 2011, p. 41).

When using the average of all scores throughout the semester, a formula that presumes that the learning early in the semester is as important as learning at the end of the semester discredits the theory of mastery over time (Marzano, 2010; O'Connor, 2009). Interestingly, when teachers and administrators have been students in graduate courses, research shows they routinely insist an evaluation on the basis of their understanding at the end of the semester rather than their work throughout the term (Reeves, 2008). "Percentage grades, despite their popularity, are the most difficult to justify or defend from a procedural, practical, or ethical perspective" (Guskey, 2015, p. 23).

O'Connor and Wormeli (2011) claim, "Recording a zero on a 100-point scale for a student's lack of work on an assessment not only falsifies the report of what he or she knows, but also immediately generates despair" (p. 41). When combined with the common practice of grade averaging, a single zero can have a devastating effect on a student's percentage grade. The atypical low score unfairly skews the overall grade (Guskey, 2015). Students readily see that receiving a single zero leaves them little chance for success or a higher grade because such an extreme score drastically skews the average (Guskey, 2015).

Many teachers see zeros as their ultimate grading weapon, using them to punish students for not making an adequate effort or failing to show appropriate responsibility (Guskey, 2015). Students get zeros for not meeting set deadlines, misbehaving in class, or refusing to heed the teacher's warnings (Guskey, 2015). A zero is seldom an accurate reflection of what a student has learned or is able to do (Guskey, 2015; O'Connor, 2017). Guskey (2004) stated, "No studies support the use of zeros or low grades as effective punishments" (p. 33).

Despite evidence that grading as punishment does not work (Wormeli, 2018) and the mathematical flaw in the use of the zero on a 100-point scale (Reeves, 2008), many teachers routinely maintain this policy in the mistaken belief that it will lead to improved student performance. Defenders of the zero claim that students need to have consequences for challenging the teacher's authority and failing to turn in work on time. Reeves (2008) added, "They're right, but the appropriate consequence is not a zero; it's *completing the work*—before, during, or after school, during study periods, at 'quiet tables' at lunch, or in other settings" (p. 86). If teachers do want improved student performance, then they must understand the difference between a harmful zero and students actually doing the work.

Giving a summative grade to homework is a common practice that distorts student learning. When teachers award points to students for meeting the basic expectations of turning assignments in on a regular basis, they often focus on meeting those rote requirements. They no longer think about learning; they have bought into a system that issues points in exchange for compliance (Iamarino, 2014). Wormeli (2006a) noted that awarding points for simply completing homework risks sending the wrong message to students: they can be successful without improving the quality of their work, if only they complete it and turn it in on time: "Homework is practice, never to be confused with absolute, final declarations of summative mastery" (p. 22).

Dueck (2014) believed that grading homework promotes busy work at the expense of intrinsic motivation and authentic learning and it could result in inflated grades as well as cheating. Homework should be a formative assessment that checks for understanding or that helps prepare students for summative assessments (Vatterott, 2015). If homework grades play into in a points system that assigns zeros for uncompleted assignments and calculates final grades through averaging, students who are capable could seriously damage their grades by failing to complete a number of homework assignments (Hanover Research, 2014).

Grading on a curve is another common practice that distorts the meaning of student grades. When teachers grade on a curve, they assign grades according to how students compare to their peers (Hanover Research, 2014). Basing students' grades on their relative standing among classmates can prompt resentment toward high-scoring students who inflate the curve and who cause other students to receive low grades (Guskey, 2015). Students must compete against one another for the few high grades awarded by their teachers. "Doing well does not mean learning excellently; it means outdoing your classmates" (Guskey, 2015, p. 51). Grading students by comparing their performance to one another distorts individual achievement (O'Connor, 2011).

The practice of giving students extra credit assignments also distorts grades away from being measures of performance and content or concept mastery (Hanover Research, 2014). Student achievement should not distort upward by the use of extra credit or bonus points. "Grades are supposed to be measures of achievement, so it is appropriate that students have "extra" opportunities to improve their grades, but these opportunities must involve demonstration of the knowledge and skills in the standards" (O'Connor, 2009, p. 104). Even if the completion of an extra assignment results in extra credit, it still skews the meaning of a student's grade because it rewards them for extra effort as opposed to achieving proficiency (Hanover Research, 2014).

Finally, the last component that inaccurately measures student performance is incorporating teacher expectations or judgment into grades. For example, the use of the "semester killer"—the single project, test, lab, paper, or other assignment that will make or break students. This practice puts 18 weeks of work at risk based on a project that might, at most, have consumed four weeks of the semester (Reeves, 2008). When a grade is supposed to report students' mastery at the end of that process, it is unethical and inaccurate to include earlier failed attempts. It is also imprecise to rely solely on single-sitting assessments for the most accurate report of what students know and can do. Instead, we look for evidence over time (O'Connor & Wormeli, 2011).

Methods

This study utilized a non-experimental, causal-comparative, ex-post facto research design. This quantitative study sought to correlate achievement on the Scholastic Math Inventory assessment as reported by a traditional or standards-based grading system implemented by the Heartland Area Schools. This study took advantage of a natural experiment in that the school district included some middle schools which implemented traditional-based grading and one middle school which implemented standards-based grading. All of the schools took the SMI assessment. The middle school, which implemented standards-based grading, was a Title I school with almost 79% of its students being minority and 98% receiving free and reduced lunch. The other four middle schools in this study are not Title I schools and these schools do not have the minority population as high as the Title I school nor do they have as many students receiving free and reduced lunch.

The use of pseudonyms helps to protect the identity of the school district in this study. The population consisted of students from Heartland Area Schools in a state in the Midwest United States. The individuals were sixth-, seventh-, and eighth-grade mathematics students from five different middle schools as they took the Scholastic Math Inventory assessment. One group of students learned in a standards-based grading system whereas the other group of students learned in a traditional grading system. There were about 500 students in the standards-based grading system and about 1,900 students in the traditional grading system.

Because this study compared end-of-year grades to Scholastic Math Inventory (SMI) scores, the researcher used ex-post facto data. Additionally, the researcher analyzed report cards to investigate relationships between traditional grading scores and SMI scores and relationships

between standards-based grading scores and SMI scores.

The administration and professional staff at Heartland Area Schools devised a grading system for evaluating and recording student progress. Four of the middle schools utilize a traditional grading system set by Heartland Area Schools in which an A, B, C, D, or F denote student understanding:

- A—outstanding work
- B—better than average work
- C—average work
- D and F—below average work

For the purpose of this study, letter grades convert to numbers as follows: A = 4, B = 3, C = 2, D = 1, and F = 0.

One middle school uses the standards-based grading system in which 4, 3, 2, or 1 denote levels of understanding based on specific proficiency levels developed by the team of mathematics teachers at that school:

- 4—Exceeds/Thorough
- 3—Proficient/Adequate
- 2—Partial
- 1—Minimal

Mathematics Assessment

Scholastic Math Inventory (SMI) assessment data and end-of-year report card grades for mathematics for students in grades 6-8 served as the data for this study. Scholastic Math Inventory is a computer-based adaptive assessment that measures students' readiness for instruction and tracks progress towards algebra readiness (Scholastic Inc., 2014). Leadership from organizations that included the National Mathematics Panel, the National Council of Teachers of Mathematics, and the Common Core State Standards Initiative contributed to the SMI. The SMI rates with the highest marks for reliability and validity by The National Center for Response to Instruction. The information from the assessment indicates the level at which students are ready to learn. This Framework provides a unified frame of reference across mathematics by organizing skills and concepts into functional, hierarchical relationships (Scholastic Inc., 2014). Students in grades 6-8 take this assessment a minimum of three times per year. The more often students take the assessment, the more they are able to demonstrate their mathematical understanding.

Results

The results of each research question included tabular results with narrative descriptions of salient findings. Pearson correlations were determined by means of SPSS, Version 22 using SMI and student end-of-course grades (traditional or standards-based). Pearson product moment correlations aided with the investigation of the relationship between SMI scores and end-of-year grades for sixth-, seventh-, and eighth-grade students in a traditional grading system (research question one). Research question 2, exploring the relationship between SMI scores and end-of-year grades sixth-, seventh-, and eighth-grade students in a standards-based grading system, also employed Pearson product moment correlations using scaled scores. The following guidelines guided the interpretation the Pearson's correlation coefficient: Weak: 0.1 to 0.3, Moderate: 0.3 to 0.5, and Strong: 0.5 to 1.0 (Cohen, Manion, & Morrison, 2013).

Relationship Between SMI Scores for Sixth-, Seventh-, and Eighth-grade Students in a Traditional Grading System from Four Middle Schools

In order to answer research question one, the researchers analyzed data from students in four middle schools who use traditional letter grades. The data consisted of the end-of-year letter grades for all mathematics students in grades 6, 7, and 8. Table 1 summarizes the results. The correlation between the Scholastic Math Inventory and traditionally assessed end-of-course mathematics grades in grades 6, 7, and 8 for all students was $r(1892) = 0.355, p = 0.000$, with an R^2 of 0.126 (13% of variance shared). These results indicate a moderate correlative relationship between the end-of-course grades from a traditional grading system in mathematics to the Scholastic Math Inventory.

Table 1

Relationship between SMI Scores and End-of-Year Grades for Sixth-, Seventh-, and Eighth-Grade Grade Students in a Traditional Grading System

Student Group	<i>n</i>	Pearson <i>r</i>	R^2	Significance
All Students	1892	0.355	0.126	0.000*
6 th Grade Students	753	0.348	0.121	0.000*
7 th Grade Students	595	0.397	0.158	0.000*
8 th Grade Students	544	0.405	0.164	0.000*

*significant correlation at .05

Relationship Between SMI scores and End-of-year Grades for Sixth-, Seventh-, and Eighth-Grade Students in a Standards-based Grading System from One Middle School

In order to answer research question one, the researchers analyzed data from students in one middle school who utilized standards-based grading. The data consisted of the end-of-year standards-based grading scores for all mathematics students in grades 6, 7, and 8. Table 2 summarizes the results. The correlation between the Scholastic Math Inventory and students' mathematics standards-based scores in grades 6, 7, and 8 for all students was $r(377) = 0.392, p = 0.000$, with an R^2 of 0.154 (15% of variance shared). These results indicate a moderate correlative relationship between the end-of-course grades from a standards-based grading system in mathematics to the Scholastic Math Inventory. Table 2 displays the breakdown by grade level for the standards-based grading system.

When looking specifically at end-of-course grades from the 6th and 8th grade students, the results indicate a strong correlative relationship between the end-of-course grades from a sixth-grade and an eighth-grade standards-based grading system in mathematics and the SMI. These results indicate a moderate correlative relationship between the end-of-course grades from a seventh-grade standards-based grading system in mathematics to the Scholastic Math Inventory.

Table 2

Relationship between SMI Scores and End-of-Year Grades for Sixth-, Seventh-, and Eighth-Grade Students in a Standards-Based Grading System

Student Group	<i>n</i>	Pearson <i>r</i>	<i>R</i> ²	Significance
All Students	377	.392	.154	.000*
6 th Grade Students	151	.607	.368	.000*
7 th Grade Students	123	.465	.215	.000*
8 th Grade Students	103	.576	.332	.000*

*significant correlation at .05

Discussion

There are positive correlations between standards-based grading and SMI results throughout the middle school grade levels. In fact, all standards-based grades in this study correlated more highly to SMI than corresponding traditional grades. This study contributes evidence to suggest that standards-based reporting provides accurate information regarding student learning as a measure for student achievement, which encourages support for a recommendation for all educators to utilize standards-based grading in school districts.

The subjectivity of a traditional grading system happens when teachers include both content and effort. In one school, a score of a “C” might mean something entirely different from teacher to teacher. Wormeli (2006a) stresses how traditional grades are not an accurate description of what a student knows and is able to do and this was the case with the traditional grading system at Heartland Area Schools. Grades are influencing areas of advanced placement as well as remedial classes. However, the inconsistency of grading in a traditional sense might make a parent wonder if their child is getting their mathematical needs met based on a subjective letter grade given by their child’s teacher.

When using a standards-based grading system, teachers determine student learning based on objective goals and/or standards. Predetermined proficiency levels are set before students complete the assessment. When teachers use standards-based grading they separate academic and nonacademic components. Teachers can more accurately communicate achievement and learning to students, to parents, and to other educators. This consistency supports the goal of mathematical educators to support the needs of each individual child at their specific readiness level. When teachers use the same criteria to assign grades, students may receive a consistent message about the expectations. Once a standards-based grading system is in place it will not matter which teacher a student has because every teacher will have clear scoring criteria and expectations based on specific learning targets or goals.

Implications for Practice

The results of this study provide evidence that a standards-based grading system, as opposed to a traditional-based grading system, is more closely aligned with the results of the Scholastic Math

Inventory standardized test. This finding is important for leaders of K-12 mathematical instruction, for leaders of higher education mathematical instruction, and for policymakers of mathematical instruction because it adds to the argument that a standards-based approach to grading should replace the traditional approach to grading.

Leaders of mathematical instruction in K-12 education understand that this is an era of educational accountability, which is driving a new way of viewing how teachers in K-12 education are grading their students. When leaders can articulate that a standards-based approach is more closely aligned with the Scholastic Math Inventory test, it may build the confidence of teachers as they traverse through the difficult work of transitioning from a traditional-based approach of grading towards a standards-based approach to grading.

Leaders of mathematical instruction in higher education must continue to stay abreast of the studies that analyze the pros and the cons of traditional-based grading systems to standards-based grading systems. This is vital to the process of training the next generation of mathematics teachers as well as helping current mathematics teachers to understand how a shift towards standards-based grading aligns better with the Scholastic Math Inventory.

Future Research Recommendations

Grading has been the same for more than a century. Traditionally, teachers have combined content and learning behaviors into one letter grade. School districts need to identify what teachers are grading and reporting on report cards. Mathematical standards will show what a student knows and understands which is why professional development needs to focus on the purpose of grading and reporting. Through research, a shared understanding needs to be a priority with all teachers across school districts.

To further explore standards-based grading and traditional grading, we recommend that a study with a larger population across a wider geographic region utilizing standards-based grading, which makes the study more generalizable. This study included mathematics students in grades 6-8, which is a limiting aspect of the study. A similar study should include students in all grade levels and in other content areas besides mathematics. Finally, the data collected was from one school year, as additional years of data would add depth to future studies.

Conclusion

Policymakers of mathematical instruction must continue to develop policies steeped in evidence-based research. It is essential for policymakers to understand which type of grading approach more closely aligns with valid and reliable standardized tests. If traditional-based grading systems persist, leaders in mathematical instruction will continue to ineffectively communicate about student achievement, which is misrepresenting their learning. In conclusion, this study provides support for a recommendation for leaders of mathematics education at all levels to utilize standards-based grading in school districts.

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Sustaining System-Wide School Reform: Implications of Perceived Purpose and Efficacy in Team Members

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Recognizing there is a paucity of recent information specifically focusing on sustainable change to draw upon, this study sought to explore and expand understanding of the topic while examining the long-term outcomes of a comprehensive reform effort in an American southwest urban school district. The primary focus of interviews employed in the study was to determine the ways in which leadership was successful in sustaining change, along with gaining insight into areas of struggle. Findings from the study reveal important insights into the personal nature of change, and its impact on leaderships efforts. Along with offering implications for practice, implications for future study are provided as well.

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Reform, continuous improvement, innovation, transformation, and turn-around are terms that have become part of the everyday lexicon of teachers and administrators in American public schools. Each school year seems to bring new calls for educators to adapt the ways in which they do their work. Educators are regularly asked to implement new academic standards, use different instructional materials, master alternative teaching methods, comply with revised funding models, and meet the requirements of different accountability systems at the state and federal levels.

These initiatives represent just a few of the possible calls to adapt practice that educators may face from year to year. Whether the call is labeled a reform, innovation, improvement, or transformation, and whether that call requires practices to be adapted at the classroom, school, or district level, it is certain that educators will be called upon to change what they do – and likely how they view things - in the name of making things better for students and their learning.

The other glaring questions that just continue to grow are, what does it mean to be better? What is the purpose of these educational changes, and similarly what is the motivation for educators to engage in them? Why should educators invest the time, energy, and effort required to change, especially if the entire tone of that effort is consistently steeped in feelings of compliance (Fullan, 2014) more so than progress? Further, and especially in that light, how can education leaders create and sustain change that is meaningful without overwhelming students, teachers and the community? This case study was an exploratory undertaking that had immediate value to the cooperating district, while also offering important considerations for current practice as well as future study.

In the past, as it will continue moving forward, the pursuit of meaningful change has long been a constant in American public schooling. The scholarly literature connected with it shows perceived needs linked to changing popular views, increasingly complex societal needs, as well as continually evolving philosophies of education. While researchers vary in how they have examined change as well as in how they have measured the impact of change over time, it is clear that the quest for change has been, and will continue to be, a constant in American public schooling.

Long a student of these changes, Fullan (2014) has referenced the strong barrier created by the compliance mentality that has grabbed ahold of schools and change efforts as result of the accountability movement in place during the past generation or so. Barriers like these appear to have perhaps contributed to a narrowed instructional focus and possibly even underdeveloped leadership in instances. The impact of this tightened focus on leadership, school reform in general, and finally upon the notion of continuous improvement are all important considerations that need be accounted for before delving into the concept of sustaining improvement.

Due to the magnitude of the topic, much of the existing research is “cause and effect” in focus, typically attempting to provide indisputable evidence of immediate success, that validates one single element or approach, and less frequently turning such attention at all toward long-term implications. Therein, much of the literature considers structural decisions in great depth, often spelling out the implications more so of managerial decisions than anything else.

By looking more deliberately and more closely for insights about how leadership practices impact the sustainability of continuous improvement efforts, this study sought to provide education leaders, both current and future, with necessary insights that could help increase their capacity to create and sustain meaningful and beneficial change. The literature on sustainability will be addressed following initial examination of school leadership and its connection to mandated school reforms and the resulting impacts on continuous improvement.

Relevant Literature

Though this study was concerned most directly with the sustainability of school improvement, it is understood that improvement whether it be sustainable or not, does not take place in a vacuum. Fullan (2014) has long explored and described the complexities of leading school improvement efforts, and has recently brought to light the barrier created by a compliance mentality imposed upon schools during the past 20 years. This mentality is burdensome in many ways. Clearly it limits attention to promising instructional potential focuses (Mausbach and Morrison, 2017), and can ultimately even challenge leaderships' perceptions of their own overall efficacy (Whitt, Scheurich and Skrla, 2015). Self-doubt and questioned empowerment can undermine the development of much needed leadership in a multitude of settings and under a broad range of circumstances. Ultimately accountability and the resulting compliance mentality can result in underdevelopment of leaders and reform efforts as they are seemingly so clearly obligated to "stay in the box" at all costs and never stretch to grow outside of the accountability framework.

School Reform and Progress or Compliance

According to Bae (2018) and Fullan (2014) school-based accountability and an ensuing compliance mindset emerged in the mid 1990, and has only continued to intensify since. Harris (2014) expressed ongoing concern about accountability requirements interfering with successful instruction, and has affirmed that success and continuous improvement strongly depends upon the contributions of more local focus and vision to integrate administrative insights and supports. Gregory Harman, Boden, Karpenski, Muchowicz (2016) have documented the failure of the mandate driven accountability focus through their in-depth study of No Child Left Behind long-term results. Continuous effort in satisfying a mandate where there is no gain is anything but continuous improvement, and their findings consistently revealed no improvement whatsoever resulting from NCLB approaches employed across all of Illinois.

Both Fullan (2014) and Gregory Harman et. al ((2016) have labeled mandated accountability a failed experiment in large part because the compliance mentality associated with it stunts forward thinking leadership in favor of stagnated "one-sized" instructional approaches that do not appear to meet any needs. While sustainability is highly sought after throughout all of the assorted school improvement efforts, Gregory Harman, et. al (2016) have demonstrated insightfully how mandates and compliance to them fail to generate outcomes even worth attempting to sustain. Sustaining success takes something more, and in as much as that "something more" has been overshadowed by calls for accountability for decades now, it is important to look deeper into features, factors and leadership characteristics that can put school improvement efforts on the correct track – and then keep them there.

Literature on Sustainability

The literature is clear that meaningful and lasting change is rarely the result of mandates (Smith and Stevenson, 2017), or simply good fortune, and more so can only realistically be achieved through careful planning along with deliberate and well executed leadership. Though there is not a single overriding definition of sustainability repeated across the literature, there are some important themes and trends that deserve mention. Datnow (2005) speaks less about specific

timelines, and more so equates sustainability with having reached a point with an initiative where it has become “institutionalized” and a recurring everyday feature of an organization.

Sanders (2012) similarly did not relate sustainability to a timeframe either, but instead identified what she believed were discreet stages progressing toward sustainability that were also independent of time. This construct holds that first come the establishment and maturation phases where elements are introduced and nurtured, respectively. Ultimately these give way to the evolution stage which notably is not anything about “having arrived” with an initiative, but more so denotes continued growth and more so a synthesis of ideas, opportunities and success.

Coburn, Russell, Kaufman, and Stein (2012) connected sustainability to the central challenge of improving instruction for the past 30 years. While Bean, Dole, Nelson, Belcastro, and Zigmond, (2015) contributed that sustainability is not just an end point, but rather must be envisioned and worked toward continuously throughout implementation. Edwards and Gammell (2016) stressed that effective leadership need not be from the top, but more so could be just as dynamic were it distributed. Cherkowski (2012) contributed findings and a point of view that nurturing leadership can increase a commitment and passion within staff that is vital for fostering sustainable teams and initiatives.

All of these insights and elements contribute to the scope of the investigation that is being described here, and help to draw attention to the wonderful complexity of meaningful change. As the literature largely lacking recent articles on the subject relates, the concept of sustainability does not receive the attention in education it did say approximately 10 years ago. This timeframe corresponds to the overwhelming emergence of standards and compliance mentality, which has perhaps in some places taken over the long-term objective for schools, and shoved sustainability thinking into a back corner.

Still, as was highlighted in Smith and Stevenson’s study (2017) while some may equate mandates with long-term success, striving for compliance is not even close to the same thing as initiating and sustaining efforts aimed at achieving excellence. The growing silence on the topic at hand only makes this study all the more relevant. Exploring the fabric of sustainability down to the subtle insights and perceived nuisances shared privately in repeated individual interviews was a mission of necessity for anyone who already knows the importance and complexity of pursuing meaningful change in education.

Pursuing Meaningful Change

Change being attempted solely for the sake of change or appeasing mandates is seldom associated with any long-term meaning. Though the frequency and urgency with which change is brought up in any philosophical discussion about school effectiveness suggests otherwise, the pursuit of truly meaningful and lasting change has been a constant in American public school for generations. This more honorable and tenable position is consistently represented within the literature on education reform and accompanying changes. While researchers vary in how they have examined change as well as in how they have measured the impact of change over time, it is clear that change has been, and will continue to be, a constant in American public schooling regardless of setting or circumstance.

Statement of the Problem

Though change is challenging anywhere, the topic takes on new meaning in settings and

circumstances where education is perceived to be falling behind. There is a problem in American public-school districts serving low-income and language-minority students; many innovative school reforms are introduced, some are implemented, but few are sustained (Bean et al., 2015; Hargreaves & Goodson, 2006; Datnow, 2005). As a result, little is known about what leaders can do to sustain reforms that are truly meaningful for these schools and communities. This lack of understanding appears also to have a negative impact on the ability of school leaders to create continued improvement as well as increased instructional effectiveness over time, and to do so with a great sense of efficacy in low income and minority settings.

Reform Partnership Initiative (RPI)

In 2008, a school district in a large city in the American southwest was issued a failing label by its state due to persistently lagging student achievement. At that time, they were presented with the possibility of an innovation-focused reform option from a potential partner. administrators had few other leads that held any promise (WestEd, 2011), and the district entered into a collaborative Reform Partnership Initiative (RPI will serve as the pseudonym for this project throughout this article). Linked with significant outside financial resources supplied by its new partner, the district was buoyed with expert technical knowledge from a prominent national research and development organization, and supported in their endeavor by a private Arizona foundation (WestEd, 2011). The intent of the partnership was to create district-wide improvement through the implementation of specific, systematic changes in the leadership practices, instructional strategies, and the curriculum and assessment resources of the entire school district (WestEd, 2011). These changes were to become a model of sustainable reform that could be replicated to transform other underperforming districts in the future (WestEd, 2011).

The partnership was established in 2008 as the Reform Partnership Initiative (RPI) and concluded in 2014 with notable results. Between the initial implementation period in 2008 and the height of the RPI reform efforts in 2011, students’ passing rates on Arizona’s Instrument to Measure Standards (AIMS) in both reading and mathematics increased at a rate greater than the state average. Reading achievement, in particular, increased at six times greater than the state average (ADE, 2015, WestEd, 2011). When the focus shifted from implementation to sustainability in 2012, the achievement of the district’s students began to decline slightly but remained within nine-points of the state average. Table 1 illustrates the change in passing rates for students in the district spanning the years between initial reform implementation and the partnership’s conclusion in 2014.

Table 1
Percentage of Students Passing AIMS 2010-2014

	2010	2011	2012	2013	2014
District Reading	58	64	61	60	60
AZ Reading	64	65	65	68	69
District Math	34	36	36	37	35

(ADE, 2015).

Local Expectations

In as much as the short-term focus was visibly tasked with improving test scores, it was understood that desired long-term outcome was to create a sustainable approach to comprehensive school improvement. WestEd (2011) described the implementation of the partnership's reforms as a "transformative process," and was credited with helping to initiate across the district "a culture that is very positive, very upbeat" (p. 7). Striving for a long-term solution, numerous "cutting edge" changes were introduced in the areas of curriculum and assessment. These were linked to training to drive improved practices in the areas of instructional practice and building level leadership and instructional guidance within the district.

New expectations for teachers included requirements to implement research-based instructional practices for all learners. Specific attention was directed toward providing differentiated language acquisition strategies for English learners. All instructional coaches and administrators were expected to use specific methods of instructional coaching that they were provided training in. Standards addressing the amount of time administrators and coaches were to be present in classrooms were established and implemented. A set of curriculum maps and pacing calendars were developed and implemented across the district. In addition, weekly common formative assessments were administered to all students in reading and mathematics and all teachers held weekly data analysis meetings to review the results and plan for remediation instruction.

As the partnership concluded, however, many questions remained regarding how the meaningful changes that were implemented during the partnership would be sustained. It was not difficult to see how a flood of positive attention and much needed intervention could impact short-term test results. From the early moments of originally discussing the partnership on through full implementation it was understood that designing adaptations would be easy in comparison to getting them accepted and on their way to becoming sustainable.

Purpose of the Study

While the motivations behind reforms are well documented, there is a paucity of recent research specifically addressing the sustainability of long-term school improvement efforts. Building on early reporting of sustainable leadership practices completed by Hargreaves and Fink (2004), the purpose of this study was to examine leadership factors impacting sustainability of reform efforts targeted through the Reform Partnership Initiative (RPI) established in 2008. As was noted already, while there was intense and visible focus on adopting new instructional and assessment strategies, there was also significant investment directed toward improved leadership and coaching practices. In combination, all of these practices were intended to help shape the efforts of future school administrators who similarly aimed to launch and maintain sustainable school reform efforts.

Research Design and Procedures

This research project employed a case study methodology, which is a part of the family of descriptive education research. Data were acquired through the use of individual interviews conducted with practitioners who participated in the implementation of the reforms during the partnership. Field notes were also collected and artifacts including internal communications and professional development materials referred to by the interview participants were reviewed. Using a holistic method of analysis, data were coded and theoretical themes related to the sustainability of reform identified. These themes revealed specific information about factors contributing to the sustainability of the reforms. They also provided a deeper understanding of the comprehensive reform partnership itself as learning outcomes and long-term attitudes were easier to see and link well after the completion of the project.

Population and Sampling

Continuity was a critical consideration for developing and implementing this project. Similarly, in establishing expectations for potential participants for interview, continuity was again vital. For the purposes of this study, a local participant was defined as one having at minimum three years of continuous employment with the district. Similarly, for agents working for WestEd, there was the expectation of at least three years of association with the organization, in addition to at least three years of engagement with the partnership being examined.

A leader was operationally defined as being either a direct supervisor or someone else having influence on the participant's work, habits, attitudes and perceptions. This operational distinction is important to note upfront as it was not necessarily expected to correspond completely to more individual perceptions that might be shared about leaders and leadership in the organization and as it pertained to this project.

The population for this case study included the administrators and teachers in nine elementary schools who participated in the reform partnership. In addition, school coaches and program coordinators from WestEd were also included. Representatives from the Ellis Center for Educational Excellence were excluded because the organization no longer existed.

Purposive sampling was employed by the researcher to select representative administrators and teachers from the focus district, as well as staff from WestEd. Specific criteria for membership in the sample included:

- A minimum of 3 years of continuous employment or association with one of the partnership organizations between school years 2008-09 and 2013-14.
- A minimum of 3 years of engagement with the partnership.
- Ability to provide information about the details of the case.
- Continued employment with one of the participating organizations.

Sources of Information

A total of 16 one-on-one interviews producing nearly 20 hours of continuous audio recording and 250 pages of transcripts were completed, and augmented by 120 pages of field notes as well as numerous artifacts documenting communications and support materials. In many instances artifacts were used to validate participant perceptions. Interview participants were identified using the population and sampling criteria referenced earlier. Participants chosen included the

membership described in Table 2:

Table 2
Participant Demographics

Participant Group	Number of Participants	Comment
WestEd Staff	3	One member of this group changed roles since their original involvement in RPI
CESD Principals	3	Positions were distributed across all involved grade levels
CESD Teachers – Grades K-8		Four members of this group changed roles since their original involvement in the RPI
• Group A Grades K-2	4	
• Group B Grades 3-5	3	
• Group C Grades 6-8	3	

Findings

Research questions and the findings they generated were intended and designed to provide comprehensive examination of and insight into the perceptions, motivations and contributions of assorted stakeholders associated with the RPI. Questions were developed after reviewing the described targets for the district-wide initiative, and linking these targets to short-term benchmarks. Taking more of a long-term viewpoint in this study, questions sought to uncover new information, particularly that having to do with participants’ perceptions and attitudes concerning the potential benefits of the partnership and intervention.

Research Question 1. What did participants perceive the goals of the Reform Partnership Initiative to be?

At a surface level, it could be argued that there was some basic underlying level of agreement concerning the intended outcome of the RPI partnership. Ultimately all stakeholders recognized the emphasis that was being placed on improving student achievement and district attainment of academic standing gains. At a deeper level, however, study participants perceived the goals of the RPI differently depending on their role in the reform. While feedback supported that the overall goals of the RPI were perceived to be improving curriculum, instruction and assessment systems, fostering adult learning, improving student achievement and addressing external mandates, there were differences of opinion attributed to what they meant.

WestEd staff and principals both perceived that the goals of the RPI were to continuously improve curriculum, instruction and assessment systems and processes. Whereas, teachers primarily saw the goals as fostering adult learning and addressing external mandates imposed on a failing school district. Viewed largely as a corrective action plan, it was accepted and understood by one teacher to be an intervention implemented to avoid being taken over by the state because of failing test scores.

Despite the differences in perceptions of the specific underlying long-term objectives, the majority of participants did perceive that the goals, as they were stated, were achieved. However, some teachers and even principals noted that while the goals were achieved, the methods, referred to by participants as “delivery” could be considered ineffective. These participants cited multiple

sources of evidence to support their conclusions about the goals of the RPI. This evidence included improved accountability labels and test scores, their own ability to implement useful practices and their own perceptions about student preparation for the next grade level.

Research Question 2. Who did participants in the Reform Partnership Initiative perceive as the leaders of the reform?

Study participants perceived the leaders of the RPI differently depending on their role in the organization and/or their role in the reform. Overall, teachers tended to view leadership differently than did those in administrative or consulting roles. Professionals who the participants identified as leaders included site principals, site instructional coaches, WestEd coaches, WestEd project directors or executives, and the Assistant Superintendent. Participants cited the following attributes when describing why they identified their leaders as they did: having the ability to make concepts relevant, practical and hands on, having relevant content knowledge and experience, and having the ability to create nurturing and/or supportive relationships. Teachers were consistently more likely to view this question in terms of titles and labels, more so interchanging the ideas of a “boss” with leadership.

Research Question 3. Which reform elements did participants in the Reform Partnership Initiative perceive as sustained?

Perceptions about sustainability were based on those elements believed to be introduced through RPI, and how evident an element was in the participants’ present-day work, and how they rated them. A listing of these elements and information on the category the element belonged to is found in Table 3. Participants ultimately rated the sustainability of the elements and indicated that they were either:

- Still evident but less frequent
- Still evident and reflective of strategies learned during the RPI
- Still evident and less frequent but with greater focus
- Still evident and a positive fit with focus and instruction

Participants across groups consistently perceived classroom observations as still evident but less frequent and more focused. In some cases, participants referred to the classroom observations as indicating consistent use of other strategies from the RPI. Participants also consistently felt that “Instructional Strategies to Support all Learners” were somewhat evident, and used in professional development planning, lesson planning, and in some cases classroom lessons themselves. Teachers especially referred to setting lesson objectives and engaging students when describing their perceptions about the strategies.

Participants also consistently indicated that professional learning communities (PLCs) were still evident, in some reality or another. Some participants indicated that PLCs were still focused on data analysis and lesson planning. Others indicated that the PLCs were now more focused on professional development and program implementation.

Finally, participants indicated common formative assessments (CFAs), while still evident, are used far less frequently than during the RPI. Participants also consistently felt that the curriculum essentials were still evident and used to guide both the implementation of academic standards as well as current areas of professional focus, such as questioning and discussion techniques.

Table 3
Elements Introduced During RPI

Name of Reform Element	Type of Element
Frequent classroom observations by principals and instructional coaches	Curriculum/Instruction
Instructional Practices to Support all Learners	Curriculum/Instruction
Teacher participation in Professional Learning Communities	Organizational
Systematic use of Common Formative Assessments	Curriculum/Instruction
Implementation of Math Pathways and Pitfalls	Curriculum/Instruction
Development and implementation of Curriculum Essentials	Curriculum/Instruction
Sustainability visits by WestEd and district office personnel	Organizational

Research Question 4. Which reform elements did participants in the Reform Partnership Initiative perceive as not sustained?

While participants perceived the majority of the elements of the RPI to have been sustained in some manner and to at least some extent, there were two specific elements that participants consistently perceived as having not been sustained. Those elements were Math Pathways and Pitfalls and sustainability visits.

Math Pathways and Pitfalls was a very specific curricular approach implemented during RPI, and was the element most consistently identified as not sustained. Most participants indicated that it was either not applicable to their role any longer, or that it was not evident in their work. Teachers did describe the materials, including books and posters, as still being present and available, but few described them as being actively used in such a way that would indicate the practice had become an institutionalized part of their work.

Less a curricular innovation and more of a leadership/organizational approach to ensure continuity, sustainability visits were carried out by district and WestEd staff, and were intended to prevent decisions from passively receiving buy in, then ultimately disappearing on the back shelf in classrooms. All participants indicated that sustainability visits were not sustained or in any way present in the work of the school. While teachers and administrators left the observation at that, WestEd staff cited the disappearance of the approach as the loss of an essential element for school transformation. A perceived lack of support from district administration was singled out as the chief contributor to the disappearance of the important approach.

Research Question 5. What actions of reform leaders did the Reform Partnership Initiative participants perceive as having contributed to the sustainability of reform elements?

As with preceding research questions 3 and 4, participants were asked to reflect individually on each of the seven elements from Table 3 originally introduced by the RPI reform. In this case the focus was less on the elements themselves and more on the visible supportive leadership actions

participants witnessed. In all cases, participants perceived many of their leaders' actions as having contributed to the sustainability of reform elements. Keep in mind that different participants had different mindsets about who leaders were. In all seven themes with thirty-eight descriptors were identified. Table 4 summarizes the seven individual themes, with associated leadership actions listed beneath.

Table 4
Supportive Leadership Actions

<p>Establishing and communicating expectations about the reform element</p> <ul style="list-style-type: none"> • Holding and communicating shared high expectations for instructional use of elements • Providing consistency, direction and flexibility • Providing advance notice when the element is going to be observed 	<p>Creating opportunities for people to deeply learn about the reform element</p> <ul style="list-style-type: none"> • Training and trusting staff to deepen their understanding and set the agenda within the reform element • Feeling open to, seeking and valuing feedback • Building competence through preparation
<p>Appreciating, encouraging, and supporting people and the reform element</p> <ul style="list-style-type: none"> • Being supportive and encouraging • Appreciating the element and associated training and materials • Praising, being positive, encouraging 	<p>Working collaboratively with people to implement the reform element</p> <ul style="list-style-type: none"> • Engaging in dialogue to build shared understanding • Modeling with adults first and learning together
<p>Making the reform element practical now and in the future</p> <ul style="list-style-type: none"> • Providing training, modeling and making it practical and feel routine • Focusing on standards • Building capacity and tools to support future work 	<p>Trusting people to work with and make sense of the reform element</p> <ul style="list-style-type: none"> • Trusting staff to implement the reform element and support each other • Trusting autonomy to implement, be accountable and fix mistakes
<p>Using data to inform people about the element, its implementation and effects</p> <ul style="list-style-type: none"> • Making data useful 	

Without question the participants valued clear, positive and trusting communication, especially about high-level expectations that the organization was striving for. They saw merit to building up the elements of the intervention, giving them a chance to be understood, and also even letting people become comfortable with them. They also valued having access to and ability to use data in order to make informed choices, and a certain amount of autonomy in implementing elements of the reform effort.

With such an extensive, even exhaustive list, it would appear as though there was a tremendous amount of momentum and investment from leadership to bring about legitimate reform and make it sustainable. Appropriately the next question focuses on the alternate side of these behaviors as participants uncovered both positive and negative leadership qualities during their interviews.

Research Question 6. What actions of reform leaders did the Reform Partnership Initiative participants perceive as having detracted from the sustainability of reform elements?

Participants perceived that while the majority of the reform elements were sustained, there were some that were not, and not all people perceived each element to be fully sustained. Participants identified specific actions by leaders that detracted from the sustainability of the elements. These actions are categorized according to the following themes in Table 5.

Table 5
Detracting Leadership Actions

<p>Approaching the reform element superficially</p> <ul style="list-style-type: none"> • Taking an impersonal or checklist approach • Compliance approach / forcing elements to fit • Addressing invaluable or impractical topics • Excessive workload and testing 	<p>Making people feel threatened</p> <ul style="list-style-type: none"> • Comparing teacher and school results • Being undermined in front of students • Feeling like a failure or violated
<p>Being absent</p> <ul style="list-style-type: none"> • Withdrawing from the process • Being disconnected 	<p>Impacting time negatively.</p> <ul style="list-style-type: none"> • Feeling rushed and/or behind and overwhelmed
<p>Impacting wellness negatively</p> <ul style="list-style-type: none"> • Not celebrating growth • Impacting sensibilities negatively 	<p>Overwhelming people</p> <ul style="list-style-type: none"> • Feeling overwhelmed / contributing to feelings of overwhelm
<p>Not prioritizing</p> <ul style="list-style-type: none"> • Wrestling with other leaders about purpose • Struggling with competing priorities 	<p>Undermining people or the reform element.</p> <ul style="list-style-type: none"> • Impacting prior knowledge and experience negatively

Response to this question provide quite a contrast to responses from Research Question 5. Taken together they give anyone interested in pursuing sustainability a lot to think about. The primary question that comes up is whether the differences represented here correspond to different attitudes about the same people, or reflect different leadership styles among different leaders. If there is “no winning” with some people, then it would almost seem to be a lock that a fairly even dose of good and bad will be the descriptor in any setting. Whereas, there is also the possibility that there were leadership winners and losers being represented in these results. In any case, it is pretty clear that less than genuine investment in a project of this nature stands out and has the potential to undermine a lot of good that may have been taking place along the same time.

Research Question 7. How did the actions of reform leaders affect the Reform Partnership Initiative participants’ perceptions of themselves as leaders?

After reviewing participants’ responses to this question, it was discovered that not all participants identified themselves as leaders and that teachers were least likely to identify themselves as leaders. However, among participants who did identify themselves as leaders, which included

teachers, principals and WestEd staff, they all perceived that their leaders' actions had impacted their own perceptions of themselves as leaders in some way.

Participants felt that their leaders' actions during the RPI did have an effect on their own self-perceptions as leaders. For some participants, the aligned interview question related to this research question was difficult to respond to because it required a level of self-reflection and analysis that was not present in the other interview questions. While some participants did not identify themselves as leaders, at some level and in some way most did. Those who identified as leaders shared that their leaders' actions had impacted them by creating within them a feeling of being trusted, having some autonomy and a sense of being empowered to lead. Participants also felt that their leaders pushed them to grow and learn as leaders. In addition, participants indicated that their leader caused them to shift their focus away from accountability driven leadership to a leadership style focused on true learning. In contrast, present among a minority of participants, was the perception that they were not fulfilled as leaders and that their leaders had not been able to help them fully realize their leadership potential.

Feeling trusted, autonomous and empowered to lead. Participants who perceived themselves as leaders consistently agreed that at some point during the RPI their leader trusted in them to lead effectively or to work independently. They also agreed that they had been empowered by their leader through opportunities to learn or deepen their understanding. They further agreed that their leader had given them some level of autonomy in their role.

Feeling pushed to grow and learn. Participants who perceived themselves as leaders also indicated that during the partnership their leaders had pushed them toward new learning. This learning was in a variety of areas including instruction strategies, content and leadership practices around coaching and professional development.

Feeling a shift in focus from accountability to true learning. Some principals indicated that their leaders helped them move beyond an initial focus on accountability toward a more comprehensive view of teaching and learning. For one principal, the shift occurred gradually through the coaching process and through conversations about classroom observations and practice. For the other principal, the shift occurred as the principal resisted the impact of what were perceived as external forces that sought to change fundamental beliefs about teaching and learning. In both cases, the principals emerged with a new understanding about teaching and learning even as the high-stakes and high-accountability context in which the RPI ultimately concluded.

Feeling as though leadership potential was unfulfilled. Both a principal and a teacher indicated some degree of dissatisfaction or lack of fulfillment of leadership potential. The principal acknowledged the desire to do better and to be more effective as a leader. The teacher reflected on the words of a former principal who asked the teacher to become a leader among the teacher's peers. However, even as the teacher initially reflected that the teacher was not a leader, the teacher began to see how the teacher's role had changed. The teacher now provided leadership to middle school colleagues and provided regular guidance on instructional needs. The teacher committed to doing more to actively provide leadership in a collegial capacity.

Summary of Findings

Covering in excess of 20 hours of recorded description, along with hundreds of pages from field notes and artifacts including communications and supporting materials, it is a daunting challenge to compress the most significant insights uncovered through this study into only a few pages, and

now only a few paragraphs. Starting with strengths and weaknesses, the findings revealed that pretty uniformly any genuine effort at implementing improvements with educational practice will communicate that there is interest in improving learning. This finding from RQ1 gave way to a next question that has elements of clarity and uncertainty to it. In response to RQ2, many participants, particularly from the classroom, viewed leadership along traditional positional “titled” lines. That being said, there was emerging awareness resulting from the RPI and subsequent follow-up that leadership did not have to have such a limited function. This was already evident to many of the other participants according to their descriptions.

To some extent it seemed that curriculum modifications and innovations had some chance of sticking around after the RPI window, unless it had to do with math. It could be argued in response to RQ3 and RQ4 that “things” often have an easier time holding their place than do complex social dynamics, like leadership and related natural, coached or perhaps trained behaviors. In truth, there were elements both from curriculum and leadership coming from both the RQ3 sustained and RQ4 not sustained voices. Stepping back and taking these items in with the bigger picture of the entire study, however, there does seem to be evidence that “things” often have an easier time holding their place. In as much as they may not lose as much ground, they probably do not stand to make as much headway either. All of this represents the complexity and risk involved in sustainable improvements to our schools.

The responses to RQ5 and RQ6 give reason to pause and question just how such distinct opposite behaviors were reported from a narrow pool of participants in just a single study. Did the perceptions held by individuals vary despite seeing the same things? Perhaps the responses reflect different abilities and behaviors exhibited by different leaders. In any case, a very clear roadmap of behaviors to avoid and those to cultivate clearly emerged from the findings. Communication, credibility and investment are all critical difference makers whether described as being present or gone missing.

Returning to the earlier description of “sustainability” for a moment, RQ7 confirmed that the possibility exists for anyone to be a leader if they believe in the opportunity, believe in themselves, believe in the “mission” and have the trust and faith of others they work with. Those others do not need to be “higher-ups” for leadership to grow. Though higher-ups do need to have faith in others in order for sustainability to flourish. All of these insights, marvelous in both their complexity and their simplicity all at the same time, give way to the following implications for professional practice.

Implications for Practice

Hargreaves and Fink (2004) wrote, “Education leaders want to accomplish goals that matter, inspire others to join them in working toward those goals, and leave a lasting legacy” (p.9). The implications for this study are significant for education leaders seeking to accomplish goals that matter.

Ensure clarity of goals and communicate goals consistently. This study revealed that participants in the RPI viewed the goals very differently. These differences in views tended to be based on the role of the participants’ in the partnership. This illustrates the importance of ensuring that goals are clear, understandable and communicated with great consistency throughout an organization. The task of communicating these goals becomes increasingly more complex as a reform involves more stakeholders and elements. However, developing communications tools such as websites, email messages and newsletters can help with providing a consistent opportunity

to communicate about the goals of a complex reform. Personal loop outs from upper level administration can also provide valuable opportunities for dialogue to occur among people who have a variety of roles in a reform. This type of open communication and visibility can help to ensure greater consistency of understanding about the goals and rationale of a reform.

Develop leadership at all levels. One of the genuinely significant findings of this study is that leadership does not always equate to having positional or supervisory authority. Leaders are those who establish learning centered priorities, provide opportunities for others to learn, encourage and support others in their work, work alongside others collaboratively and practically as they learn, and trust others to succeed. Therefore, it is important for all within education to understand and accept that as an educator, they have a leadership role. Educators need to realize that someone is looking at them for leadership at all times.

Classroom teachers provided the majority of the perspectives in this study because whether they think so or not, classroom teachers have some of the most significant leadership power in any reform. Classroom teachers can work with each other and their administrators to ensure that priorities for reform are collaboratively developed, clearly communicated and kept alive through regular engagement and data informed progress monitoring. Classroom teachers can also be a significant source of encouragement and positivity for each other, their administrators, their students and their community as they work to guide future reforms and seek to accomplish goals that matter.

Establish priorities and set expectations in a collaborative manner. School principals also have significant power to make or break a reform. Some of this power comes from their ability to establish priorities and expectations. This does not mean that they can or should dictate what the priorities and expectations should be. Rather, by working collaboratively with teachers and others to develop a shared set of priorities and expectations, the school principal will be able to help everyone know how best to focus their leadership within the context of a reform.

District-level leaders, while not playing a key role in this study, can also be critical in the process of creating and implementing successful reform. Again, by acting as leaders to establish priorities, helping others to learn and by providing support, guidance, and encouragement, district leaders can be very important. They are in the unique position to stand in the role of reform planning facilitator to ensure that reforms are well developed, planned, communicated and monitored.

Plan strategically for reforms to succeed. This strategic planning role cannot be overlooked in the context of a complex reform, especially given the fact that everyone involved has a leadership role to play. Someone, or a group must be responsible for acting as the leader of the reform. This person or group must be equipped with sufficient perspective to view the entire reform comprehensively and plan for its implementation and communication across stakeholder groups. The most logical place for this particular type of leadership is at the district level because of the inherent responsibility to provide oversight and support for multiple schools within a district. Though housed at that level, leadership is required at all levels, and oversight needs to be collaborative and invested in at all levels for any chance at sustainability.

And finally, for organizations such as WestEd that provide external support services to schools and districts globally, the implications for practice are also significant. Providers of external support services can use this information to build the capacity of their executives, directors and school coaches to work more collaboratively to establish clear leadership roles, goals and communications methods to support future projects. Providers of external support services are in a precarious position when coming in to any kind of school or district that is in need of support.

The danger in that work is that the internal stakeholders, the teachers, principals and district administrators, can cede leadership of the reform to the external providers. This not only reduces the short-term workload on the internal stakeholders, but it can also provide them with someone to blame for the challenges that consistently arise during a reform project such as the RPI. This is a seductive combination when the stakes are high.

When leadership is under developed and under shared during a reform, the end result will very likely be that those who are supposed to sustain it after the external support is withdrawn may not own the reform. In those cases, the financial resources, time, energy and effort invested are not wasted, but they will not have the long-term effects that they could have had, had there been leaders skilled in sustainable leadership practices to guide the reform. Moving forward it may be possible to reclaim lost momentum should there be a lapse in leadership. Quite likely, however, lapses could also be expected to raise levels of cynicism internally and restrict future endeavors into a quicksand-like helping of status quo.

Implications for Continued Scholarship

As was suggested in an earlier section, a generation dominated by external accountability and compliance demands seems perhaps to have put some of the professional focus and ensuing literature on sustainability on the back shelf. Sustainability is not easy. It is likely far easier to do what one is told and learn to accept lesser results. Similarly, it is easy to roll out a bunch of mandates each and every year and represent that overall process as being some sort of vision for the future. It appears as though behaviors like these are increasingly being accepted – which is all the more reason why quality scholarship concerning sustainability is more important than ever. It is a disservice to condition our society to accept less when there are better ways to promote and nurture improved education. Looking every to the future, the following possibilities are offered for continuing scholarship on this topic.

- Explore the obvious question simply and empirically – has compliance taken the driver’s seat away from sustainability? This is a question that could be directed at perceptions in the field, in training institutions, professional associations, and even among those who are responsible for setting standards for various professions. It would be especially interesting to see what legislators across the country thought of such a question.
- Explore the impact of “immediate” need and how it might influence the fabric of leadership and sustainability. The district described in this project was in danger of failing. There was a real “Good to Great” situation in place. In some ways, that probably helped to even launch the initiative being studied. In other ways, it probably corresponds to some deficits and doubts that were already in place in the organization. It is a fair question to ask how things work in places that might not be in the same level of need as the organization that was studied here.
- Explore differences between buildings in the same organization, in order to better be able to answer if the contrasts in what works and does not work vary – in response – primarily because of differing perceptual lenses held by various stakeholders, or more so if they represent clear and established differences between specific work settings and leadership styles incumbent in them.
- Explore the differences between settings that have already more so embraced distributed leadership approaches, and perhaps thereby have some existing capacity for investment it

takes to pursue a sustainability path, and other settings that more compliantly have a “do as you are told culture.

- Explore the potential involvement with and ramifications from addressing sustainability from more of a policy and or mission standpoint. It was noted in this study that the lack of investment from the Superintendent of Schools was viewed by some as having a limiting effect on potential positive outcomes. Saying it once again, sustainability is not easy. One author got the term sustainability inserted into the mission statement in a different former work setting – only to see it disappear as soon as he moved on to a new job. It may be the right path to take, but does everyone want to go that route? What happens when the message comes from the top? Does it take on a feeling of dominance or one more so of encouragement and nurturance?

Honest questions like these, that come out of an investigation intended to open doors for future inquiry, deserve to be answered. Leadership is not easy. Attempt to make it so – is not credible leadership. Popular or not, well represented in the literature anymore or not, the issues addressed in this study and the possibilities uncovered within confirm there is genuine need for the approaches explored herein.

Conclusions

This case study was an exploratory venture that provided important information to the cooperating district, helped generate practical insights for daily practice, and will also lead to important considerations for future study. As the title of the article denotes, very personal feelings of purpose and efficacy clearly impacted and even guided the actions of various stakeholders in the school improvement initiative examined here. There was visible need for the district to respond to challenges connected with its failing performance rating. The district was ready to partner with others to address failing performance, but that does not mean the staff in the district was ready to embrace the ensuing changes or the manner in which they were being introduced. Critical lessons learned from this case study include:

Actual findings differ from anticipated findings. Upon concluding this study, the researcher was inspired by the findings, which were significantly different than those that were initially anticipated. As a participant in the RPI himself, the researcher expected study participants to express perceptions similar to his own. By examining the perceptions of multiple participants who held a variety of roles in the RPI, the researcher was able to identify a broader set of goals, a wider range of leaders, and a richer set of attributes to define sustainable leadership than those that the researcher held prior to the study.

Perception is highly individualized and role-driven. The realization that the study resulted in new learning for the researcher highlighted the notion that all people perceive their experiences in unique ways that are highly based on their own roles. This is important for all education leaders to recognize. Not all participants in a reform perceive the reform in the same way that the leader does. As a result, leaders need to engage in constant cycles of dialogue with participants, specifically for the purpose of checking perceptions about new initiatives as well as existing, systems, structures and projects.

Superintendent leadership was notably absent. The researcher found it notable that the leadership of the superintendent was absent from participants’ perceptions. Only one study participant explicitly perceived the superintendent as playing a key leadership role. This study reveals that for at least the study participants, the role of the superintendent was not perceived as

having a significant leadership influence. This finding underscores the importance of recurring cycles of dialogue among leaders and participants at all levels to check perceptions about the complicated work of reform and to ensure that there is a clear and shared understanding about the goals, roles and evidence of impact being examined during any systematic change process.

Leadership need not be perfect to make and sustain changes that matter. This study included educators who did more than simply participate in a reform project that was put into place to change school accountability labels. The educators in this study are also leaders who modeled a personal commitment to children's learning as well as their own. The educators in this study also modeled the tenacity, perseverance, commitment and hope that are the cornerstones of true sustainability. This is in keeping with the attributes of sustainable leadership that Hargreaves and Fink (2004) offered,

Leaders develop sustainability by committing to and protecting deep learning in their schools; by trying to ensure that improvements last over time, especially after they have gone; by distributing leadership to and responsibility to others; by considering the impact of their leadership on the schools and communities around them; by sustaining themselves so that they can persist with their vision and avoid burning out; by promoting and perpetuating diverse approaches to reform rather than standardized prescriptions of teacher and learning and by actively engaging with their environments (p.13).

Ultimately, the researcher concluded that true reform sustainability requires sustainable leadership practices to ensure that those implementing the reforms are able to develop the sense of purpose, commitment and efficacy necessary for the reforms to thrive in a healthy, professional and productive environment that supports continued implementation of those elements.

The educators in this study are, each in their own way, practitioners of sustainable leadership. These leaders were able to achieve goals that mattered through the development and implementation of changes that mattered during the RPI. Though they did not implement every strategy perfectly, and though they did not achieve every academic goal, they sustained. As a result, the children, and community of the Central Elementary School District are better educated and better prepared to succeed because of the work of these leaders and their commitment to making and sustaining changes that matter.

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The Impact of Trait Emotional Intelligence and Regulation of Emotions for Educational Leaders when Dealing with Emotionally Charged Adults

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The purpose of this study was to identify the desired emotional intelligent traits successful educational leaders possess, how they regulate their emotions, and the strategies they use when interacting with emotionally charged adults. The results of this two-group study (practicing and aspiring school administrators) revealed higher emotional intelligence scores in the factors of self-control and sociability for the practicing group. The aspiring group scored low, as compared to practicing principals, in the facets of assertiveness, emotion regulation, and social awareness. Similarly, a subset of principals with greater than 10 years' experience scored higher in self-control and sociability as compared to the aspiring group.

Key Terms: Ability EI, Emotional intelligence, MSCEIT®, Trait EI, and TEIQue®

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Everyone has emotions; how leaders manage those emotions help to determine a leader's effectiveness. School administrators have daily encounters with parents most of which are routine, however, some meetings can be emotional and stressful. A leader will meet people "with different levels of ability in handling their emotions" (Wong, 2016, p. 12). Petrides (2009b) noted, "individuals differ in the extent to which they attend to, process, and utilize affect-laden information of an intrapersonal or interpersonal nature" (p. 10). How an administrator defuses an emotionally charged situation can result in a positive or negative outcome for all parties involved. Administrators need a strategy on how to best handle their emotions and the emotions of others, especially when dealing with adults who have become emotionally charged.

This study is important to leaders and educators who interact with people. A loss of emotional control can be detrimental to a leader's or educator's relationships, whether with a student, teacher, or parent. A leader's emotions can have a positive or negative influence on others. When a leader is faced with an emotionally challenging situation they must remain in control of their emotions. Leaders are always in the spotlight and must remember they present an emotional model for others to follow. Leaders can have a profound influence on others. If an educator's actions are impulsive in nature, then the results of their actions may be disastrous. At times, educators face emotionally charged adults, and must have the skills to manage the emotions of others, and effectively calm or console those adults. For these reasons, the study of trait emotional intelligence and the regulation of emotions for educational leaders provides much-needed skills for aspiring and practicing educational administrators.

Do these skills needed to respond to emotional confrontations come naturally or can they be taught? Goleman, Boyatzis, and McKee (2002) found that "emotional intelligent competencies are not innate talents, but learned abilities, each of which has a unique contribution to making leaders more resonant, and therefore more effective" (p. 38). Furthermore, Roy (2015) noted, "many scholars (Goleman, 1998a; Nelis, Kotsou, Quidbach, Hansenne, Weytens, Dupuis, & Mikolajczak, 2011) argue that training can improve the development of trait EI skills in leaders and educators and that these improvements are sustainable over time" (p. 312). Training may be equated to learning through life experiences (Bariso, 2018; Wong, 2016).

Trait emotional intelligence (trait EI) is the measure of a person's *ability* to understand and to manage his or her own emotions, as well as the emotions of others when interacting with them, and adjusting his or her behavior accordingly (Goleman, et al., 2002). Because trait EI skills can be learned, future and current leaders can acquire emotional competencies to become successful administrators. With this as the case, it would then seem logical that emotional intelligence competencies would serve the student/aspiring administrator well as part of a leadership curriculum (Petrides, Mikolajczak, Mavroveli, Sánchez-Ruiz, Furnham, & Pérez-González, 2016).

Any practicing administrator faced with an emotionally charged adult will immediately experience their stress level rise. How an administrator handles their emotions and the emotions of others is important in an emotionally charged interaction. The researcher chose the factors *self-control* and *sociability* to examine in aspiring and practicing administrators. The accompanying facets of emotion regulation, impulsiveness, stress management, emotion management of others, assertiveness, and social awareness can have a profound affect when dealing with an emotionally charged interaction. The factors emotionality and well-being also have important facets and skill sets, but the researcher chose, as a matter of personal benefit, to narrow the study to just the two factors self-control and sociability (Merino-Tejedor, Hontangas, & Petrides, 2018; Mortiboys, 2012; Petrides, 2009a, 2009b, 2017; Roy, 2016, Wong, 2016).

The researcher investigated the trait EI attributes of practicing school administrators of several schools. Petrides (2009b) identified two trait emotional intelligent factors which deal with intrapersonal and interpersonal emotions: *self-control* and *sociability*. Exhibiting the factor of self-control includes the ability to excel at regulating emotions, managing stress and controlling impulses. Those leaders who demonstrate the sociability factor are good listeners, strong communicators, and can deal with all types of personalities. Leaders high in the sociability factor are assertive with people, socially aware and can manage the emotions of others. The researcher investigated whether the selected practicing school administrators had these traits.

Problem Statement

School administrators encounter many personalities throughout the school day. Some of those encounters are with adults that are unhappy, frustrated, or confrontational. Leadership skills and emotional intelligence (EI) competencies are critical to the success of educational administrators especially when dealing with unhappy or frustrated adults. Principals must examine data, read reports, observe staff, and encounter parents daily, all the while directing their school towards success (Costanza & Hanrahan, 2001). Moreover, administrators face many stressful issues each day, and addressing emotionally charged adults is a huge part of that. Schultz (2007) maintains, “a principal’s skill in the area of human relations, decision-making, control of subordinates and conflict resolution are indicators of leadership traits and behaviors” (p. 3). Practicing principals may have a bad day and be susceptible to losing their temper, yet they must keep their emotions in check as not to affect those surrounding them. Moreover, leaders must monitor their own health, such as their eating and sleep habits, as not to affect their overall disposition (Roy, 2016). Goleman, et al. (2002) wrote, “great leadership works through the emotions” (p. 1). The researcher investigated desirable emotional intelligent competencies needed for the educational leader. Furthermore, the study analyzed the strategies and skills administrators utilize when dealing with emotionally charged adults in a professional and timely manner. The aim of the researcher was to determine whether there are trait EI score differences between aspiring and practicing administrators. Additionally, the study was focused on identify critical strategies and skills, used by practicing principals, through the use of the TEIQue® questionnaire, a Situational Judgement Test (SJT), and open-ended questioning. Once identified these skills and strategies can be passed onto aspiring administrators to shorten the learning curve which novice administrators experience. The EI skills a leader possesses affects everyone with whom they interact (Bariso, 2018; Roy, 2015). These are the skills that enable leaders to manage their emotions as well as the emotions of others.

Research Questions

Research Question One

Are there differences between *self-control* and *sociability* scores of experienced administrators and educational leadership students?

Research Question Two

Are there differences between *self-control* and *sociability* scores of administrators and years of

experience in the role?

Review of Related Literature

Theoretical Framework

The origins of and support for emotional intelligence have roots in the social intelligences. Thorndike in the 1920's defined social intelligence as "the ability to understand and manage men and women, boys and girls, and to act wisely in human relations." Gardner, nearly half a decade later (1983), in his highly acclaimed work, *Frames of Mind*, further developed the ideas of social intelligence as introduced by Thorndike to include both the interpersonal intelligence and intrapersonal intelligences. These intelligences include the ability to recognize and understand other's motivations, moods, and emotions; and to recognize those same characteristics in oneself. These two intelligences, as identified by Gardner were the basis for emotional intelligence as we know it today. Defined in 1990 by Salovey and Meyer as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" and popularized in 1995 by Dan Goleman, emotional intelligence utilized by leaders has been identified as a driver for significant bottom line results (Freedman, 2006). The notion that this ability in a leader can undergird success for the school leader when dealing with adults in the school building is the premise of this research study.

Emotional Intelligence

Most people are familiar with Intelligence Quotient (IQ), "the index of human intelligence as measured by a test score" (Sternberg, 1994, p. 591). At an early age, students take tests to measure IQ. Based on the results, they are placed into curriculum programs that reflect their IQ. But unlike IQ, which deals with mental cognition, EI deals with human emotions. Bradberry and Greaves (2009) argue that EI and IQ are not related, and that IQ is set at birth, based on genetic make-up. Sternberg (1994) notes, "IQ is a substantially heritable trait, but dissimilar from nonintellectual personality traits" (p. 438). Sternberg (1988) wrote "there is overwhelming evidence that suggests that intelligence is *in part* genetically determined" (p. 75). Furthermore, genetics sets a limit on an individual's intelligence, "the standard 50 percent figure for heritability of intelligence does not imply anything at all about how much intelligence can be increased" (p.75). Sternberg (1988) asserts that heritability can be affected by time, location, and environmental surroundings. Moreover, intelligence can improve. Intellectual improvements can be made through cognitive stimulation and training.

Though IQ is important in a leadership position, it is a baseline indicator of success (Goleman, 1995). It is the control and mastery of one's emotions that propel a person to success (Boyatzis, Goleman, & Rhee, 2000; Bradberry & Greaves, 2009; Goleman, 1995, 1998b, 2005; Petrides, 2010, 2011; Roy, 2015; Wong, 2016).

Skills Associated with Emotional Intelligence

Bradberry and Greaves (2009), Goleman, et al. (2002), and Salovey and Mayer (1990) indicate that EI is made up of five components: self-awareness, personal motivation, social-awareness, empathy, and relationship management. These components are categorized into two

competencies: personal and social.

Personal competencies are comprised of self-awareness, personal motivation, and self-management traits. A person with personal competency can recognize his or her emotions and can manage the resultant expression of those emotions (Bradberry & Greaves, 2009). Social competence is comprised of social-awareness and relationship management. Bradberry and Greaves define social competence as “your ability to understand other people’s moods, behavior and motives in order to improve the quality of your relationship” (p. 24). Moreover, social competence skills address interactions between people, whereas personal competence focuses on the individual.

Ability Emotional Intelligence versus Trait Emotional Intelligence

Ability EI “refers to one’s actual ability to recognize, process, and utilize emotion-laden information, which pertains to personality” (Wong, 2016, p. 257). Roy (2015), Petrides (2011), Petrides and Furnham (2003) note that ability EI measures EI through the cognitive intelligences of: accurately perceiving emotions, using emotions to guide thinking, understanding emotional meaning, and managing emotions. The measurement of ability EI is through the use of maximum performance tests, which are scored by correct and incorrect answers, developed by emotions experts (Mayer, et al., 2003; Petrides, 2009b). The most common ability EI measurement tool is the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT®). However, Roberts, Schulze, O’Brien, MacCann, Reid, and Maul (2006) report that the MSCEIT’s® “validity of certain EI components, as currently assessed, appears equivocal” (p. 663). Furthermore, Wong (2016) refutes test items in the MSCEIT®, which may not be cross-culturally valid.

Contrariwise, trait EI is the measurement of personality traits as they relate to emotions. Trait EI is emotion-related dispositions and self-perceptions as they pertain to emotional experiences (Petrides, 2009a; Petrides, 2009b; Petrides & Furnham, 2001; Petrides, Furnham, & Frederickson, 2004). Trait EI measures EI through the subjectivity of self-report questionnaires such as the TEIQue® where there are no correct or incorrect answers. Likewise, several studies (Gardner & Qualter, 2010; Mikolajczak, Luminet, Leroy, & Roy, 2007; Petrides, 2009a, 2009b) acknowledge the use of trait EI measurement (TEIQue®) as a reliable and valid assessment of emotional intelligence.

Petrides (2011) and Mayer, Salovey, and Caruso (2008) assert that it is the understanding of one’s emotions that dictates how to regulate one’s own life. Trait EI is the perception of emotions through the measurement tool of self-report. To determine the emotional state and personality traits of leaders, the selection of trait EI and its measurement tool (TEIQue®) were utilized for this study.

Trait Emotional Intelligence

Trait Emotional Intelligence theory was developed by Dr. K.V. Petrides in 2001. Petrides (2010) defines trait EI “as a constellation of emotional self-perceptions located at the lower levels of personality hierarchies” (p. 137). Operationally, trait EI is made up of the sampling domain of 15 facets, four factors and global trait EI. The 15 facets of the trait EI theory are as follows: *Adaptability, Assertiveness, Emotion expression, Emotion perception, Emotion regulation, Low impulsiveness, Relationships, Self-esteem, Self-motivation, Social-awareness, Stress management, Trait empathy, Trait happiness, and Trait optimism*. The 15 facets are grouped into the following

four factors and their definitions: *Emotionality, Self-control, Sociability, and Well-being.*

There are two facets that are not included in the four factors: *Adaptability and Self-Motivation.* Though not included, these auxiliary facets are important in calculating global trait EI scores (Petrides, 2009b). The 15 facets combined into the four factors combine to make-up *Global trait EI.*

Petrides (2011) believes that there is not one set of trait EI skills that automatically label a person to be successful. Trait EI theory asserts that during an emotional situation, certain emotional profiles may be more favorable over other profiles. Moreover, Petrides (2010) believes there is not an exemplary EI model which people should imitate to guarantee success. There is “no magic profile of the ‘emotionally intelligent’ individual who will excel in all aspects of worklife [*sic*] exists” (p. 138). Furthermore, Roy (2015) notes an on-going battle between the cognitive mind and the emotional heart. When the emotional heart takes over, behavior could become irrational, resulting in poor decisions. Emotions are a key component of human relationships. The balance of emotions with the cognitive mind is at the heart of the study of emotional intelligence. As humans, our need for balanced relationships causes us to evaluate our own emotions and recognize and understand the emotions of others to achieve this goal. For this reason, trait EI is the measurement of our ability to recognize and manage our own emotions as well as others’ and modify our behavior as needed.

Scholarly literature supports utilizing trait EI and identifies trait EI as critical in effective leadership (Dulewicz, Young, & Dulewicz, 2005; Emmerling & Goleman, 2003; Goleman, 1998b; Goleman, 2005; Goleman, et al., 2002; Johnson, Aiken, & Steggerda, 2005; Rajah, Song, & Arvy, 2011; Rao, 2006; Roy, 2015; Stichler, 2007).

Emotions and the Emotional Adult

Of the many challenges a school administrator faces, dealing with emotionally charged adults can be the most exhausting. Whitaker and Fiore (2001) note when meeting with a difficult parent, administrators should never argue, yell, be sarcastic or unprofessional. The leader must keep his/her composure and remain the professional, “you never argue with difficult people. Not only because you cannot win because they have a lot more practice arguing than you do” (p. 8). The most important reason for not arguing is that we are examples to children and in some cases, parents. Whitaker and Fiore declare that no one wants to engage with people who are confrontational, obnoxious, rude, disrespectful, indignant, or argumentative. Even the most successful educational leaders dread interacting with these people. When encountering a confrontational adult, an administrator must remember not to take the emotional situation personally. The issue at hand may not be the reason the person is upset. Ingram and Cangemi (2012) wrote that emotions are the result of an action and the way a leader responds to these emotions can be the difference between becoming overwhelmed by them or using them to their benefit.

Patterson, Grenny, McMillan, and Switzler (2012) believe that to establish a dialogue, the leader must create a safe environment for the emotional person to express their feelings. The emotional person may be reluctant to enter a dialogue due to the perception of vulnerability. Creating a safe environment may lead the emotional adult into a dialogue. A safe environment consists of one free of verbal attacks and a concerted effort by both parties to address the issue. Once in a dialogue, Patterson et al. assert the leader to monitor the dialogue and determine when the safe environment is at risk:

You should step out of the conversation and restore it. When you have offended others through a thoughtless act, apologize. Or if someone has misunderstood your intent, use contrasting. Explain what you do and don't intend. Finally, if you're simply at odds, find a Mutual Purpose. (p. 156)

This will allow the emotional adult to feel safe to share his or her feelings in meaningful dialogue.

Patterson et al. (2012) contend leaders must be sincere, curious, remain curious, and most importantly exhibit patience when engaging an emotional adult in a confrontational conversation. To be sincere, the leader must show interest, and be willing to listen. Instead of mimicking the emotional adult's behavior, the leader must be curious about what has caused the emotional behavior. The leader must get at the source of the fear and irritation the emotional adult is expressing. Patterson et al. (2012) remark "Look for chances to turn on your curiosity rather than kick-start your adrenaline" (p. 158). Moreover, the leader must stay curious to avoid attaching negative meaning to the emotional adult's story. The leader must discover what circumstance has caused the emotional behavior. The leader's goal is to understand the adult's reasoning, not necessarily agree or support their reasoning. Lastly, the leader must be patient with the emotional adult. They too have had a release of adrenaline as a result of their emotional behavior. Patterson et al. note that although people can move from one thought to the next, strong emotions may remain, and take some time to relent. It will take time for the adult to regain control over their emotions. The emotionally intelligent administrator must be sure to give adequate time to an angry or upset adult.

Whitaker and Fiore (2001) emphasize that educators must show appropriate ways of interacting with people and act as an example of appropriate behavior. Getting into arguments with difficult adults reinforces their poor behavior. Patterson et al. (2012) assert, when an adult becomes disrespectful, during a heated discussion, the leader must immediately address the behavior before continuing with the discussion. Otherwise, the behavior will be perceived as being acceptable, and could undermine the leader's authority. Moreover, if leaders end up displaying poor behavior the focus of the argument is lost.

Bradberry and Greaves (2009) explain that "our brains are wired to make us emotional creatures; your first reaction to an event is always going to be an emotional one. You have no control over this part of the process" (p. 16). But Roy (2015) argues that, if a leader practices the *emotion regulation* facet of trait EI, then he or she can fight against physiological evolution. When an administrator experiences a trigger event (a prolonged emotional reaction), resulting in emotional hijacking, then a professional resolution to the encounter may be lost. To avoid emotional hijacking, Laborde, Lautenbach, Allen, Herbert, and Achtzehn (2014) believe the strategies of *emotion regulation* can help control or modify emotions. Moreover, Peng, Wong, and Che (2010) contend identification of emotions in others and displaying the correct emotional response while controlling individual true emotions is critical to successful interactions.

Lastly, Whitaker and Fiore (2001) believe when dealing with angry parents, educators must acknowledge their anger and not marginalize it. When engaging adults, an administrator should, as Covey stated in his 1990 best seller "seek first to understand, then to be understood" (p. 235). Once emotions have been identified, along with those triggers, emotion management is possible.

Managing Emotions

Caruso and Salovey (2004) believe:

People with a strong ability to manage emotions can be passionate, but they also have a good emotional self-control, tend to be even-tempered, think clearly when they are experiencing strong feelings, make decision based on their hearts and their heads, and generally reflect on their emotions often. (p. 65)

When an administrator finds himself or herself in an emotionally charged situation, they should acknowledge their emotions and then control their feelings through emotion management. Ingram and Cangemi (2012) note how a leader can manage his or her emotions when dealing with people:

- 1) **Identifying** their own emotions in a given situation (how they feel).
- 2) **Managing** their own emotions in that situation and reflecting on them.
- 3) Then **Understanding** the emotions of the individual/group with whom they are interacting. Next, after sensing the feelings—emotions—of the individual or group, blending their own managed emotions and thinking with understanding of the emotions/feelings of the other(s), which leads to:
- 4) A more positive **Interpersonal** relationship and the probability of a more successful outcome. (p. 775)

New school administrators may find that they lack the emotion management experience that more experienced colleagues may possess. Bradberry and Greaves (2009) acknowledge that people have basic knowledge such as how to read and write, but lack the emotional skills needed to deal with people, especially during emotional confrontations. Furthermore, when people make decisions they must have facts, self-knowledge and mastery of their emotions. Wong (2016) believes the ability to identify and understand people's emotions provide the leader with a skill to deal with emotional situations. Leaders that are strong in regulating emotions can modulate their emotions as to avoid having a negative impact on their work. When faced with an emotional situation, these leaders do not let the event affect their work performance.

Interactions

Bradberry and Greaves (2009) imply that any interaction takes time and effort. A person can only control his or her part of an interaction. How he or she reacts to another person, in an emotional encounter, depends on his or her emotional intelligence. Even though in a leadership position, it should not be assumed that a leader is gifted with a high EI. Even though all leaders are not necessarily gifted with high EI, emotional intelligent skills can be learned.

Aristotle (n.d.) is quoted with saying “anyone can become angry--that is easy. But to be angry with the right person, to the right degree, at the right time, for the right purpose, and in the right way, this is not easy.” When used correctly, anger can be utilized to manage a relationship in a positive manner. Ingram and Cangemi (2012) assert that when interacting with people, do not avoid the inevitable. Some relationships may be uncomfortable and challenging. It is these types of relationships that require one to utilize the managerial EI skills. Moreover, the emotionally intelligent leader may have to utilize different emotional strategies to challenge people to be more productive. A leader that continuously conveys positive emotions may not get the desired performance results they seek.

Patterson et al. (2012) notes most leaders are the recipients of other adult's emotional behavior. Leaders enter a confrontation at the point after the adult has made an observation, assigned a meaning, and developed an emotional response. This can cause the leader to be at an emotional disadvantage. Ingram and Cangemi (2012) believe administrators should acknowledge

the other person's feelings. By doing this, the administrator shows caring and may validate the other adult's feelings. They further suggest that the leader should complement the person's emotions or situation. This indicates listening and concern regarding the other person's situation. Administrators must acknowledge other's efforts and positive contributions. Recognizing what people do can produce dividends in a relationship. Explain decisions, do not just *make* decisions. Managing conflict is part of leadership and leaders must learn how to skillfully resolve intense interpersonal encounters.

Patterson, et al. (2012) note, crucial or tough conversations can be planned or can occur spontaneously. Roy (2015) reports, administrators will have tough conversations as a leader. This can be with a teacher, parent or other adult. In this situation, the leader must remain calm and dispassionate when meeting with another adult. The leader must not project their own personal feelings, should speak slowly and clearly, and listen to the other person's perspective. In tough conversations, the leader must promote the emotion regulation and management (others) facets to avoid emotional escalation in a meeting. Moreover, an administrator may have to give feedback to the emotional person(s). The leader must remain assertive, but not aggressive. In the end, the leader is in charge of the school. Within the feedback, the leader must show understanding while delivering feedback. Furthermore, feedback should consist of constructive criticism as well as positive. As in giving feedback to parents and a student, the administrator must provide corrective actions as well as identifying positive aspects. Patterson et al. (2012) discuss that people who are skillful at conducting stressful conversations are able to suggest contentious ideas, without adverse resistance. Lastly, the administrator should separate the incident from the person, thus building instead of tearing down which could lead to an emotionally distraught person (Roy, 2015).

Patterson et al. (2012) believes effective leaders have the skill to manage emotional and political tough issues. These types of leaders facilitate the dialogue as to ensure that relevant information is shared among participants in a tough conversation. Leaders make certain all ideas are presented in order to come to an informed consensus. Roy (2015) discussed that a leader must be ethical in their decision making. Creating an honest and ethical persona establishes trust and respect in the leader. A leader with integrity will stand up for what is right without being aggressive. These character traits go a long way in the educational environment. A leader must avoid the fear of giving negative feedback due to perceived damaging relationships. Failing to have the necessary tough conversations may result in the leader's authority being undermined. Lastly, a leader knows when to say "no" and not compromise their position by trying to appease whomever.

Methodology

Overview of Methodology

For this study, data was gathered using the Trait EI Questionnaire® (TEIQue®), a Situational Judgment Test (SJT), and open-ended questions. The focus of these instruments was to gather data pertaining to leadership characteristics, and as well as strategies utilized in emotionally charged confrontations from selected school administrators and educational leadership students in a southern state in the United States. Only the acting principals were asked to complete open-ended questions and two situational judgment (SJT) questions. These two questions were developed by Hope (2011).

Participants. This study utilized purposive sampling. According to Johnson and

Christensen (2014), purposive sampling occurs when “the researcher specifies the characteristics of population of interest and then tries to locate individuals who have those characteristics” (p. 264). The sample consisting of 21 principals and 10 educational leadership students were invited to participate in this study. The principals’ group contained seasoned administrators from various schools in the region of the study; consisting of elementary, middle and high school principals. The principals’ group was comprised of 67% male and 33% females. The student group included 60% female and 40% male. The principal group was made up of 85% Caucasian, 5% African-American, 5% Spanish-American, and 5% other. The administrative experience, in the position of principal, ranged from 2 years to 20 years. The age range of principals was from 36 to 64 years old. The student group age range was from 36 to 54 years old consisting of 50% African-American, 40% Caucasian, and 10% other.

Design. This study followed a nonexperimental, correlation research design where all participants were subjected to the same experimental conditions (Johnson & Christensen, 2004). This research design was selected for a southern state where there was limited access to aspiring and practicing administrators. Moreover, data collection via the TEIQue® consisted of 153 questions, two SJT questions, and two open-ended questions. Finding those aspiring and practicing administrators that took the time to complete the questions were limited. Those administrators who have low trait EI scores should have greater challenges in managing emotionally charged adults, but administrators with high trait EI scores should have greater success. Moreover, the scores from the SJT were compared to the scores of the TEIQue® to determine any correlations. Those principals who score high trait EI should have a high SJT score. Conversely, principals who score low in trait EI should have low SJT scores. Additionally, educational leadership students who have no administrative experience would be expected to have a lower trait EI score than practicing administrators.

Instrumentation. The primary instrument in this study was the TEIQue®. The TEIQue® instrument is “predicated on a sampling domain that aims to capture the affective aspects of personality, in the form of self-perceptions, which gives rise to a particular factor structure and, more important, a particular way of distributing and interpreting variance” (Petrides, 2009a, p. 2). The selected instrument for this study was the long form of the TEIQue® and is comprised of 153 items, due to the evidence of construct validity.

The TEIQue® questionnaire used in this study was based on a 7-point response scale; data analysis distributions tend to be leptokurtic (more values closest to the mean). The structure of the TEIQue® consists of 15(facets)-4(factors)-1(global TEI) and is analyzed at the facet level and not at the item-level (question) (Petrides, 2009b). The secondary instrument used in this study was a SJT. Tests are designed to determine how a prospective employee would react to a given work-related situation.

Hope (2011) designed a SJT known as the Tacit Knowledge Inventory for Predicting Success in Administration (TKIPSA) which contains 17 situations. For this study, two situations were selected from the Hope (2011) study. The selected questions represented situations in which emotionally charged adults could be present. The SJT questions were administered to the school principals. Lastly, upon completion of the two SJT scenario questions, principals completed two opened ended questions designed to obtain their opinion on EI skills and strategies.

Presentation of Data

Research Question One

Are there differences between *self-control* and *sociability* scores of experienced administrators and educational leadership students? Data were collected through the TEIQue® developed by Petrides (2009b). Table 1 shows the mean and standard deviations for principals and students as well as the results of independent *t*-test between the groups.

Table 1

Descriptive Statistics for Principal and Student Comparison. Degrees of freedom (df). Principals' and students' t-test (t) representing a significant difference between the two groups. Calculated probability (p).

Principals <i>n</i> = 21 Variable	Students <i>n</i> = 10					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>
Emotion regulation	5.29	0.51	4.91	0.73	29	1.62
Impulse control	5.12	0.84	5.03	0.80	29	0.27
Stress management	5.00	0.62	4.86	1.00	29	0.46
Social awareness	5.45	0.55	5.32	0.83	29	0.49
Emotion management	5.31	0.48	5.10	0.60	29	1.03
Assertiveness	5.48	0.72	4.76	0.82	29	2.43*
Self-control	5.14	0.47	4.93	0.73	29	0.90
Sociability	5.14	0.45	5.06	0.56	29	1.84

**p* < .05

The table reveals that students scored lower in all categories than principals. However, the results from the data show there is a statistically significant difference (*p* < .05) in the trait *assertiveness* between students and principals. There were no other statistically significant differences found with the remaining variables.

In the final analysis, students scored lower in *assertiveness* and *emotion management* which are facets of the *sociability* factor. Additionally, students scored lower than principals in *emotion regulation* a facet of the *self-control* factor. An overall score showed students were weaker in the factor *self-control* as compared to principals. In addition, students scored low in *emotion regulation* versus the principals' higher scores. The two groups were equivalent in scoring for the factor *self-control* and the facet *impulse control*.

Research Question Two

Are there differences between *self-control* and *sociability* scores of administrators and years of experience in the role? Data were collected through the TEIQue®. An independent *t*-test was performed on all TEIQue® scales for the trait EI of administrators. The results from the data revealed there are no statistical significant difference in less and more experienced principals.

To summarize, though there were some principals with less than 10 years' experience that scored low on the TEIQue®, there were several principals that had an average score. Additionally, some principals with greater than 10 years' experience scored low as well. Less experienced principals were not as strong as experienced principals in the area of *assertiveness*, *impulse control*, and *emotion regulation*. Both groups were equally strong in the trait *emotion management* and *stress management*. Comparing the results of the two groups shows a shift to higher TEIQue® scores as a principal gains experience, indicating an increase in EI with experience.

Conclusions

Discussion

When considering the qualitative portion of the study, the researcher noted that the first situational judgment question proved to be the most difficult question for principals to answer. Their responses to the SJT produced a wide range of answers. Though not all of the principals participated in the SJT, the strategy decision responses may have been influenced by similar past scenarios, resulting in the wide range of answers. Sevdalis, Petrides and Harvey (2007) believe decision makers are influenced by the outcome of past choices. This recollection can have a profound influence on a current decision. Alternately, principals' answers might have been culturally influenced. Finally, the SJT experts' key may not have been properly vetted.

Data from the SJT was compared with data from the TEIQue®. Those principals that scored well on the SJT, (who matched up with the experts' scores), generally had average scoring on the TEIQue®. The principals that scored low in the TEIQue® did not score well with the SJT. Additionally, there were some high scorers on the TEIQue® that did not participate in the SJT. Due to the mixed results, a distinctive correlation between the two assessments was not established. The researcher believes if there were additional participants in the SJT a clearer relationship between the high TEIQue® scorers and the high SJT scorers might well have been established.

From the convenience sample of principals and educational leadership students analyzed, the finding was students' scores were weaker than principals' in the factor *self-control*. Specifically, *assertiveness*, *emotion management*, and *emotion regulation* were weak facets for the students; principals were very strong with most scoring average or better. This may be due to the nature of their position. The principals had years of experience to hone their interactive skills with people whereas the students were not yet in the position to be exposed to multiple daily interactions, especially with emotional charged adults. The facet *impulse control* had relatively similar scores between the principal and student groups.

Furthermore, students were weak in *emotion regulation* with no high scorers. The evidence indicated this may be due to a lack of coping skills and strategies used to address personal stress. Principals had a mixture of scores with no definitive relationship to experience or age. As with students, principals may need help with coping skills and strategies. The position consumes much time and energy; therefore, it is that much more important that this trait is not neglected.

The principals' group scored higher in the factor *self-control*. *Social awareness* and *emotion management* collectively were stronger with the principals' group than the student group. This result reflects upon the encounters which principals have with adults daily whereas, students would not have the same exposure experience as principals do.

Limitations

The most obvious limitation of this study was the size of the convenience sample of principals and students. Of those principals that participated in the study, not all took the SJT. Some contacted the researcher and expressed their concern that the questionnaires required too much time, and as principals they did not have the time to complete the assessments. Furthermore, prior principals' administration or leadership experience was not captured. Based on the evidence, two questionnaires and two open-ended questions did prove to be too much to complete for a busy administrator. The researcher postulates that if the questionnaires consumed less time, then perhaps the study would have resulted in more principals participating. Likewise, a sample of educational leadership students were obtained without any incentive. The researcher believes that an incentive may have helped increase the numbers of students participating in the study.

Summary

The purpose of this research study as identified by the researcher was to identify coping skills and strategies for new and aspiring administrators when dealing with emotional and confrontational adults. Through the research, the researcher learned that when comparing the normative mean to the principals' mean, principals scored higher in all traits including the overall *global trait EI* mean category. This indicates that those selected to lead schools tend to possess high emotional intelligence traits. Furthermore, the researcher found that educational leadership students scored higher than the normative group in all facets except in *assertiveness*. Not only did students score lower on *assertiveness* than principals, but also students scored lower than the normative group. Further comparison by gender showed both principals' groups outscored the normative groups. The normative population was similar in demographics to this study's participants. Uniquely, the normative population had a wide spectrum of different levels of education, ranging from the least (no high school diploma) to the most educated (Ph.D.). Furthermore, the normative group's average age was significantly lower than this study's principals' average age. Moreover, the principals' group was a selected group of education professionals uniquely different from the overall normative TEIQue® population. Similarly, males in both groups, the normative group and the principal group, scored higher than females on *emotion regulation*. Due to the evidence presented the researcher believes the principals in this study have been selected for their positions, based on their strong personality traits. Considering this evidence, this study's participants would be considered the "best of the best" and would be expected to score higher than the normative population. Equally important, the principals' group in this study scored higher in trait EI than the normative population.

As mentioned above, the principals' group has a higher trait EI than the normative population. Because of this, the principals' group operates at a higher level of trait EI and any discrepancies within the group would not be as large as within the normative population. The general description of people with high trait EI is that they are more apt to deal with resultant stress and have a large social network for support. This describes the characteristics that a principal would need to succeed at his or her job. Those with low trait EI are those people who have problems dealing with stress and tend not to have strong social networks for emotional support. This description would not reflect the lower scores of this study's principals group.

Principals face their greatest challenges during times of high stress. A principal must manage their anger when dealing in an emotionally charged situation. In the end, their success

hinges upon their ability to acknowledge and control their emotions while recognizing those same emotions in others. As the evidence shows, the student group was not as strong, in traits *sociability* and *self-control*, as the principal group. Moreover, the less experienced principals were not as strong as the experienced principals in *sociability* and *self-control*.

Based on this evidence, the researcher believes students need the training and experience to prepare for the role of an administrator. The training may help the students circumvent the time it takes to improve upon the traits of *sociability* and *self-control*. As far as engaging an emotionally-charged adult, the principal group showed strength in the factors *sociability* and *self-control*. These are the traits needed for emotionally-charged encounters.

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