The Impact of Progress Monitoring Structures on Student Achievement

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THE IMPACT OF TEACHER EFFICACY ON IMPLEMENTING PROGRESS-MONITORING STRUCTURES

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Educational Leadership Doctoral Program

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DIGITAL COMMONS DOCUMENT ORIGINATION STATEMENT

This document was created as one part of the three-part dissertation requirement of the National Louis University (NLU) Educational Leadership (EDL) Doctoral Program. The National Louis Educational Leadership EdD is a professional practice degree program (Shulman et al., 2006). For the dissertation requirement, doctoral candidates are required to plan, research, and implement three major projects, one each year, within their school or district with a focus on professional practice. The three projects are:

- Program Evaluation
- Change Leadership Plan
- Policy Advocacy Document

For the **Program Evaluation** candidates are required to identify and evaluate a program or practice within their school or district. The “program” can be a current initiative; a grant project; a common practice; or a movement. Focused on utilization, the evaluation can be formative, summative, or developmental (Patton, 2008). The candidate must demonstrate how the evaluation directly relates to student learning. This program evaluation examined the impact of teacher efficacy on progress monitoring structures to impact student achievement. Teacher efficacy is an important factor in implementing progress monitoring structures with fidelity to impact student achievement.

In the **Change Leadership Plan** candidates develop a plan that considers organizational possibilities for renewal. The plan for organizational change may be at the building or district level. It must be related to an area in need of improvement, and have a clear target in mind. The candidate must be able to identify noticeable and feasible differences that should exist as a result of the change plan (Wagner et al., 2006). When teachers implement the instructional cycle with fidelity, planning instruction, incorporating research based practices, assessing instruction, and analyzing data, the use of progress monitoring can shift from a mundane task needing to be completed for the administration, district, and/or state, to an integral component of teaching (Santi & Vaughn, 2007).

In the **Policy Advocacy Document** candidates develop and advocate for a policy at the local, state or national level using reflective practice and research as a means for supporting and promoting reforms in education. Policy advocacy dissertations use critical theory to address moral and ethical issues of policy formation and administrative decision making (i.e., what ought to be). The purpose is to develop reflective, humane and social critics, moral leaders, and competent professionals, guided by a critical practical rational model (Browder, 1995). High quality school leadership is pertinent to improving school performance and raising student achievement. Implementing this policy could create a more equitable evaluation system to support, hire, and retain effective leadership in every school in Chicago.
ABSTRACT

This program evaluation studied the impact of teacher efficacy on progress monitoring structures. To examine the effectiveness of teachers’ efficacy on implementing a progress monitoring tool, teachers in grades 3-8 were administered a questionnaire to discover their perceptions about implementing progress monitoring with fidelity, their ability to use a computer-based program, their comfort in doing so, and the quality of the data it enabled them to view. The results of the questionnaire suggest that teacher efficacy is an important factor in implementing progress monitoring.
Albert Bandura postulated, “People’s level of motivation, affective states and actions are based more on what they believe than on what is objectively the case” (Bandura, 1977, p. 2). When serving students in disadvantaged communities, it is vital, that those charged with educating students believe they have the capacity needed. Albert Bandura suggested that self-efficacy is defined as a personal judgement of “how well one can execute courses of action required to deal with prospective situations” (Pajares, 1996, p. 546).

Self-efficacy determines a person’s confidence, motivation, and/or behavior related to their environment. Whiling researching teachers’ efficacy related to progress monitoring, teachers often appeared to lack the confidence, motivation, and behaviors necessary to have the desired impacts on student achievement. Teachers expressed that they implemented progress-monitoring expectations from a compliance standpoint. This position could suggest that staff did not believe their behavior would make a difference. Teachers appeared to go through the motions, as opposed to being truly vested in the work of using data regularly to affect student achievement.

I could conclude that teachers felt that a student’s ability to achieve was beyond his or her control. This argument is made often by some educators. Some educators suggest that because students lack parental support, live in violent communities, come from low income environments, and come from single parent homes, that somehow, their potential is lessened. The ability to support the development of educators’ efficacy is a leadership lesson that this researcher pondered throughout this research. I concluded that
it is vital for school leaders to create an environment where teacher efficacy is advanced—especially in schools serving students who are low income (disadvantaged).

School leaders must build collective efficacy in order for school improvement to permeate throughout the school community. Also, teachers who have experienced success will have higher efficacy than those that have not. Further, teacher efficacy is directly correlated to student academic success. Reflecting upon these positions, this researcher concluded that high-teacher efficacy is a powerful catalyst for school reform and addressing achievement gaps. The ability of school leaders to affect staff efficacy is critical to school reform and increased student achievement.
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SECTION ONE: INTRODUCTION

Purpose

Research has indicated that progress-monitoring systems are vital components for transforming schools (Edmonds, 1979). The National Center on Student Progress Monitoring defines progress monitoring as “a scientifically based practice that is used to assess students’ academic performance and evaluate the effectiveness of instruction” (Klotz & Canter, 2007, p. 2). Progress monitoring is a practice that can be used to assist teachers in using student data to continually assess the effectiveness of their teaching by determining if students are profiting appropriately from the core instructional program, as well as determining if teachers are making informed decisions about instruction. Progress monitoring can be used to establish and measure student academic goals, provide a tool for understanding how students are progressing toward established goals, identify students who are potentially at risk for academic behavior issues, and provide accountability evidence to stakeholders (Shapiro, 2008).

Ronald Edmonds’ Correlates of Effective Schools suggested that the frequent monitoring of student progress is a high-leverage practice for successful schools (Lezotte, 1991). Teachers must implement progress-monitoring structures with fidelity to measure and monitor student growth in order to demonstrate professional capacity. Research suggests that when teachers implement progress-monitoring structures with fidelity, students gain significantly more progress than those who do not receive progress monitoring (Deno, 2003; Fuchs & Fuchs, 2002; Fuchs, Deno, & Mirkin, 1984; Good & Jefferson, 1998; Stecker, Fuchs, & Fuchs, 2005; Ysseldyke & Bolt, 2007; Ysseldyke, Spicuzza, Kosciolek, & Boys, 2003).
The purpose of this research involved evaluating the impact of teacher efficacy on implementing progress-monitoring programs. In 2005, Wheatley called teacher efficacy “a teacher’s belief in their own ability to influence outcomes” (p. 748). Epstein and Willhite (2015) defined teacher efficacy as “the belief teachers have in their ability to impact student learning” (p. 189). Research garnered by Anita Woolfork, whose primary research is centered around teacher efficacy, suggested that teachers’ perceptions about their ability to impact student learning and implement strategies for student engagement are an important factor in student academic success and teacher outcomes (Shaughnessy, 2004).

As stated, Wheatley called teacher efficacy, “a teacher’s belief in their own ability to influence outcomes” (2005, p. 748). However, the term *efficacy* has evolved greatly since Shaughnessy used it in 2004 when citing Woolfolk’s work—showing that research on teacher efficacy suggests that teachers’ perceptions about their ability to impact students’ learning and implement strategies for student engagement are an important factor in student academic success and teacher outcomes (Shaughnessy, 2004). Cantrell and Hughes (2008) echoed that definition in 2008. In 2015, however, perhaps feeling the word *outcomes* may have needed further contextual refining, Epstein and Willhite (2015) added a certain nuance and clarity by saying teacher efficacy is the belief that teachers have the ability to impact student learning. To be clear, for this paper, the word *efficacy* describes the belief teachers have in their own ability to implement progress-monitoring structures. In other words, teacher efficacy, means a teacher’s thoughts and feelings about how capable he or she feels concerning their ability to positively impact student achievement via progress-monitoring structures.
Progress Monitoring Program

The pseudonym for the progress-monitoring tool utilized for this study, XYZ Progress Monitoring Tool (hereafter referred to as XYZ Tool), is a computer-based program that uses students’ Measure of Academic Progress (MAP) Rasch Unit (RIT) scores to identify a student’s performance level. The Northwest Evaluation Association (NWEA) developed MAP assessments to garner RIT scores that provide accurate measurements of how students are performing in reading and mathematics. XYZ Tool is one of many progress-monitoring tools used to predict success on the NWEA MAP assessment. It allows users to track students’ academic growth, inform teaching and learning, and determine the effectiveness of the curriculum.

The NWEA MAP assessment is administered twice a year—once in winter and once in spring. During the winter benchmark, student data are adjusted based on individual growth or regression from the spring data. Without including the winter benchmark data, however, only the end result is seen—from spring to spring—to determine what students have learned from one school year to the next. The progress-monitoring system was designed to provide feedback to teachers and the school community at large on progress toward district expectations for reading and math. Teachers then use the data to adjust teaching, as necessary, to meet those expectations in a timely manner. School administrators use the data to provide resources, feedback to staff, and make any other necessary adjustments to budgets and curriculum.

The initial step for utilizing the progress-monitoring system (XYZ Tool) mandates that all students acquire preliminary performance levels in reading and mathematics. After a student’s performance level is identified and entered in the system, individualized
activities and grade-appropriate lessons (referred to as learning paths) are created. These learning paths are aligned to the Common Core State Standards. The XYZ Tool suggests that students work on learning paths for a minimum of 120 minutes per week during the school day, with the option of also working on them independently at home. To give students the maximum opportunity for reaching the required 120 minutes, teachers are required to take their entire class into the computer lab twice a week—giving 60 minutes for reading and 60 minutes for math during each session. This is a best practice, which XYZ Tool suggests, but schools can implement the program as it sees fit.

This study surveyed teachers in an urban school environment using a questionnaire (see Appendix A) to discover their perceptions about the progress-monitoring system currently in use; specifically, their ability to use it, their comfort in doing so, and the quality of the data it enabled them to view, analyze, and use for teaching modifications when warranted. This study also looked at the fidelity of the implementation of progress-monitoring structures, effective practices for implementing new programs, and key factors affecting the implementation of progress monitoring. As a school administrator and instructional leader, this study was important because it enabled the researcher to coach teachers with enthusiasm—as well as insist on the faithful use of the XYZ Tool (or any progress-monitoring system) to positively impact student achievement based on scientifically gleaned facts of the positive results from progress monitoring with the demands of high accountability.

The No Child Left Behind (NCLB) Act of 2001 has placed an increasing amount of pressure on schools throughout the United States to ensure all students demonstrate progress, and to increase accountability (Parette, Peterson-Karlan, Wojcik & Bardi,
Implementing productive progress-monitoring structures keeps me from fostering curriculum reductionism at my school. Implementing progress-monitoring structures allows this researcher to analyze student progress aligned to students’ curriculum goals. It also ensures that the researcher provides an equitable education for the children she is accountable for educating. Progress monitoring is a crucial component for maximizing student learning. When teachers implement progress monitoring with fidelity, students master more learning outcomes, teachers can make more informed decisions regarding student learning, and students become vested participants in their learning (Safer & Fleischman, 2005).

Once vesting takes place, many schools report seeing students make progress in social, athletic, and family settings as well, because they realize they have some stake in improving themselves (Madaus, Russell, & Higgins, 2009).

Finally, before describing the importance of this study, the term *effectiveness*, which many laypeople confuse or equate with efficacy, is defined. Merriam Webster (2016) defined effectiveness as, “producing a decisive or desired effect” (p. 228). Effectiveness, therefore, refers to the degree and extent to which something is working. Merriam Webster (n.d.) online defines efficacy as, “the power to produce a desired result or effect.” In relation to the study, the teachers have efficacy (confidence in their ability to impact their students). In its application, the teachers must have a belief in their ability to use the system (adequate training) and must have fidelity in its use—hit-or-miss will not work and may even skew results. Then, when teachers must use that knowledge from progress monitoring to improve content and teaching methods, where indicated by
shortcomings in students’ progresses, the students can grow in competency as a result of their learning process (Wolters & Daugherty, 2007).

The learning process, of course, must be monitored. As an assistant principal, this researcher, through this program evaluation study, understood the impact of teacher efficacy on the implementation of progress monitoring. This understanding enabled the researcher to make more informed decisions in implementing progress monitoring and ensure that the best protocols were in place to maximize students’ learning.

**Rationale**

Research suggests that when progress-monitoring systems are implemented with fidelity, student achievement increases, teachers’ focus on learning targets increases, and schools are better able to align their resources to state and federal expectations (Fuchs & Fuchs, 2002). As a school administrator, this researcher finds progress monitoring a necessary tool to evaluate the effectiveness of teaching and to make more informed instructional decisions. Currently, the researcher is implementing progress monitoring at her school to support teaching and learning to meet the needs of every child.

In this era of increased accountability, schools must implement programs and strategies to monitor progress toward established learning-achievement goals and expectations. Proof of compliance and validation of reporting are no longer optional. Furthermore, schools are provided with a plethora of research indicating that evidence-based practices support increased student learning (Stecker, Lembke, & Foegen, 2008). It is my belief that, despite the research evidence around progress monitoring, schools do not implement the practices with fidelity because teacher efficacy (that self-confident sense of being able to affect and improve learning) needs to be developed more.
When society concentrates more on shoring up teacher efficacy, it will also eliminate the all-too-human possibility of automatically assuming any problem that arises does so because of students who can’t learn. When teachers feel confident they have done the best possible job of teaching, the raw data on student achievement and/or efficacy becomes even more valuable as an indicator of what must be addressed—perhaps even changed, modified, or added to the curriculum or lesson plan.

Implementing progress-monitoring structures can help teachers use student performance data to continually evaluate the effectiveness of their teaching and make more informed instructional decisions (Safer & Fleischman, 2005). Administrators must also be versed in protocols that support genuine standards for selecting and utilizing progress-monitoring tools, in efforts of leading schools to greater student achievement. Districts, depending upon the number of schools in their network, spend huge amounts of capital on progress-monitoring systems. The researcher’s school alone spent approximately $90,000 to implement the XYZ Tool in grades K–8. In addition, the school provides staff professional-development training on implementing the various elements of the system throughout the year, designates staff to maintain technology, provides training, and coordinates benchmark assessments. The emotional toll of this increased number of tasks and the related increase of raised stress levels in both students and staff is often not even taken into consideration, let alone measured as accurately as other areas of capital.

Ultimately, the school administrators are charged with managing school organizations. Their support of implementing and faithfully using a robust progress-monitoring system will, for all the reasons mentioned, help to ensure student achievement
and goal realization (Dusenbury, Brannigan, Hansen, Walsh, & Falco, 2005). During my tenure as assistant principal, the management of progress monitoring has been a major focus of mine. Staff implementation and usage can support teaching and learning. Therefore, this researcher was tasked with ensuring that progress monitoring is implemented strategically and supports teaching and learning. Her work included implementing structures to increase productivity. Increased teacher fidelity regarding progress monitoring will support increased productivity and national compliance.

Since NCLB was signed into law in January 2002, the national debate on education in America has centered on all students’ receiving a high-quality education, as well as the use of high-quality assessments to measure student progress toward that goal (Dee & Jacob, 2011). Developing a greater understanding of teacher efficacy related to progress monitoring will allow schools and the school district to implement procedures and standard practices supporting the articulated law and validate its implementation to assure continued funds (Shidler, 2009). This study helps to shed light on conditions that influence teacher efficacy regarding progress monitoring, and considers the impact that teacher efficacy has on progress monitoring as it relates to increased student learning.

**Goal**

This research’s goal involved evaluating the impact of teacher efficacy in implementing a progress-monitoring tool. According to Patton (2008), “Improvement oriented approaches tend to be more open-ended, gathering varieties of data about strengths and weaknesses with the expectation that both will be found and each can be used to inform an ongoing cycle of reflection and innovation” (p. 116). Research suggested that in order for research-based practices to be effective, high-quality
implementation must be present when implementation is disseminated (Dusenbury et al., 2005).

Data was used to evaluate the impact of teacher efficacy on implementing progress-monitoring structures. Further, the data was used to evaluate procedures and outcomes that support appropriate expenditures of human, emotional, and monetary capital. In keeping with the research, demonstrating that when teachers use student-progress monitoring, students learn more, teacher decision-making improves, and students become more aware of their own performance (Safer & Fleischman, 2005), the major goal of evaluating the progress-monitoring system would be increased student achievement—accomplished by implementing evidence-based practices with fidelity resulting from teacher efficacy.

**Research Questions**

School districts spend millions of dollars purchasing systems to monitor student progress as growth. Are they truly effective? Research states, yes (Dembo & Gibson, 1985; Fuchs & Fuchs, 2001; Hanushek & Raymond, 2006; Henson, 2001; Stecker & Fuchs, 2000; Ysseldyke & Bolt, 2007). For this program evaluation, my primary research was to determine the relationship, if any, of teacher efficacy with the implementation of progress monitoring. How do teachers administer progress-monitoring structures effectively? What challenges and barriers have emerged based on the implementation structures? These questions guided the program evaluation process so that the answers resulted in a growing awareness of the pros and cons of such systems and protocols for selecting progress-monitoring programs that are both reliable and valid. The final results
serve as a tool to help put structures in place that can then help implement progress monitoring effectively.

One thing we already know from various studies on the subject, many of which are cited in this paper, is that progress monitoring promotes an unending and circular path to derived benefits. Teacher efficacy enhances the system’s ability to monitor growth. In turn, seeing students making progress, or being able to get remedial help because their lack of progress was identified, enhances teacher efficacy.
SECTION TWO: LITERATURE REVIEW

The literature covered in this research paper consists of literature on progress monitoring, teacher efficacy, and the best practices for implementing new programs in the context of social learning.

To monitor progress, the U.S. government enacted NCLB. The NCLB act compelled public school districts in the United States to implement progress-monitoring programs to ascertain whether students were learning (Darling-Hammond, 2007). Progress-monitoring programs function nationwide as an accountability system for grades 3–8 to help improve academic outcomes for all students (Dee & Jacob, 2011). In fact, in a larger context, progress monitoring acts as a vehicle for schools to measure if students are mastering grade-level standards and moving successfully toward academic goals. Accountability systems for student achievement require progress-monitoring structures to measure student progress (Marston & Magnusson, 1985).

In this regard, many urban public schools use computer-based progress-monitoring programs. Compass Learning, Measuring Up, Study Ladder, and Dibbles are a few of many computer-based programs that schools utilize to monitor student learning with differentiated lessons, prescribed learning paths based on assessment data, and reassessment timelines to monitor the progress of students’ mastery of standards (Cobb, 2010). Nationally, an emphasis on increasing the amount of students meeting and exceeding standards has increased with the implementation of progress-monitoring structures in schools. Schools use progress-monitoring structures for benchmarking and predicting performance on high-stakes assessments (Buck & Torgeson, 2003; Good, Simmons, & Kame’enui, 2001; Hintze & Silberglitt, 2005). In alignment with NCLB and
the Individuals with Disabilities Education Act (IDEA), progress-monitoring structures provide direct links between assessment and instruction (Shapiro, 2008).

With regards to teacher efficacy, one of the well-known learning theories is Bandura’s (2011) Theory of Social Learning. It posits that people learn by observing other’s actions, behaviors, and resulting outcomes. Albert Bandura postulates that self-efficacy influences how much effort people put forth, how long they will continue to engage in challenging tasks, to what extent they will endure failures, and how much stress they will tolerate in coping with arduous situations (Bandura, 1997; Tschannen-Moran, Hoy, & Hoy, 1998). There is no greater example of this than students learning from a dedicated teacher with a high degree of self-efficacy.

**Progress Monitoring**

Progress monitoring is a scientifically-based practice used to assess a students’ academic progress and evaluate the effectiveness of instruction (McLane, 2008). It provides information for the teacher on what students have learned and what still needs to be taught. Throughout the last 30 years, research has shown progress monitoring to be a reliable and valid predictor of student achievement (Deno, 2003; Fuchs et al., 1984; Good & Jefferson, 1998). An increasing amount of pressure has been placed on states, school districts, individual schools, and classroom teachers to increase the number of students who are meeting academic standards (Deno et al., 2009).

More than $400 billion has been spent on educating students in the nation’s public education system since 1965. However, results from state and national assessments of student progress and achievement have shown that student achievement has remained tremendously stagnant (Wright, Wright, & Heath, 2004).
With this escalation in funds, assessments have become a vital element to the education system (Stecker et al., 2008). Education mandates such as NCLB have placed demands on public education stakeholders to be thoughtful about all decisions regarding student learning (Parette et al., 2007). President George W. Bush’s enactment of NCLB in December 2001 led to new regulations and mandates being issued in November 2002. These regulations required each state to measure students’ progress in reading and mathematics in each of grades 3–8, and at least once during grades 10–12 by the 2005–2006 school year. The mandate also stated that by the 2007–2008 school year, states would be required to administer assessments in science at least once, annually, in grades 3–5, 6–9, and 10–12 (Watt, 2011).

Progress monitoring has become a critically important instrument for improving the academic outcomes of all students. As stated before, progress monitoring provides direct links between assessment and the instructional process. Substantial research connected to progress monitoring has emerged since the 1980s, showing how progress monitoring can be used to inform teaching and learning across academic disciplines, create instructional groups, identify specific skill deficits, screen students for potential early school failure, assist in eligibility decision-making, and evaluate the reintegration process for students moving from special to general education settings (Fuchs, Fuchs, & Bishop, 1992; Fuchs, Fuchs, Hamlett, & Allinder, 1991; Shapiro, 2008; Shinn, Habedank, Rodden-Nord, & Knutson, 1993; Shinn, Powell-Smith, Good, & Baker, 1997; Speece & Case, 2001; Whinnery & Stecker, 1992).

Progress monitoring is a vital element in any educational system. States use progress-monitoring data to evaluate the efficacy of their educational systems. School
districts also use progress-monitoring data to monitor the success of their instructional programs; classroom teachers then use the data to determine students’ mastery of content and academic growth (Stecker et al., 2008). The National Center on Student Progress Monitoring described progress monitoring as an instrument for teachers to use to assess students’ academic performance in a continuous way for the purpose of determining if students are learning and to create more effective programs for the students whose basic educational needs are subpar from typical educational institutions (Fuchs & Fuchs, 2001). Safer and Fleischman (2008) defined progress monitoring as a practice that helps teachers use student performance data to evaluate the effectiveness of their teaching and to make informed decisions regarding teaching and learning. Shapiro (2008) suggested that progress monitoring has become “critically important” in maximizing academic outcomes for all students (p. 141).

The progress-monitoring tools that schools select should provide reliable and valid data to indicate if students are learning (Deno, 1985). Progress monitoring can be a powerful assessment tool to help, guide, and inform teaching and learning. Data gathered from progress-monitoring structures can be used as a conduit for formatively evaluating the overall impact of instructional programs on student achievement. Effective progress-monitoring structures allow entities to monitor the student outcomes (Fuchs & Fuchs, 2008; Stecker et al., 2008). For the purpose of this paper, progress-monitoring tools were viewed as instruments to provide teachers with information regarding student progress in relation to the instruction/intervention they were receiving during the study (Crawford-Brooke, 2013).
Research from Ysseldyke and Bolt (2007) suggested that when teachers’ implement progress-monitoring systems as intended (and utilize the data from the system to plan and differentiate instruction, student growth was gained significantly more than those for whom implementation was limited or nonexistent.

**Implementation**

Teachers in districts throughout the United States are experiencing the effects of high-accountability mandates, which has led to increased progress-monitoring and implementation structures. Desirable outcomes are achieved when effective programs are implemented with fidelity (Fixsen et al., 2005; Leschied & Cunningham, 2002; Washington State Institute for Public Policy, 2002). Research suggested that high-quality implementation structures that were coupled with research-based best practices, such as progress-monitoring structures, are effective when administered (Dusenbury et al., 2005).

According to research (Backer, 2001; Dusenbury, Brannigan, Falco, & Hansen, 2003), variables such as dosages, adherence, quality of process, adaptation, teachers’ thoughts and feelings about the program, teachers’ knowledge of the content being addressed, and teachers’ prior experience, lead to quality implementations. Of these variables, teachers’ thoughts and feelings about the program, teachers’ knowledge of the content being addressed, and teachers’ prior experience can be used to indicate the root cause of success or failure of the implementation process (Backer, 2001; Dusenbury et al., 2003).

Four components are common among the successful implementation of progress-monitoring structures (Fixen, Blase, & Friedman, 2005). These components consist of the following:
1. Selection
2. Professional development
3. Coaching
4. Support (Fixen, et al., 2005)

Further research (Gettinger, 2001; Marston & Magnusson, 1985; Penuel, Fishman, Yamaguchi, & Gallagher, 2007; Reinke, Stormont, Herman, & Newcomer, 2014; Wagner & Levine, 2010) concluded that the fidelity of the implementation process was important. Research from Ysseldyke and Bolt (2007) garnered that when teachers’ implemented progress-monitoring structures as intended, students gained significantly more knowledge and growth than those whose implementation was limited or nonexistent. In this regard, teachers are now under tremendous amounts of pressure to raise student achievement. In turn, this increasing pressure to meet district and state mandates has affected teachers’ instructional and assessment behaviors (Brighton, 2002). Moreover, to ensure fidelity in the progress-monitoring methods used, it is recommended that teachers undergo a professional development session to review the procedures intended for the use of progress-monitoring tools (National Center on Response to Intervention, n.d). It would also help to provide these teachers with coaches who would monitor the teachers’ progress-monitoring practices. Finally, it is recommended that “procedures for monitoring fidelity of assessment, instruction, and adherence to data-based decision-making practices be built into the school’s yearly implementation plan and reviewed at least quarterly” (National Center on Response to Intervention, n.d., p. 3).
Teacher Efficacy

It is clear that teachers’ level of competency and their behaviors play a major role in the improvement of student outcomes. Humans tend to be self-examiners of their behaviors and actions—often reflecting on their efficacy and fidelity and thinking about their thoughts and interactions continuously. In a 2005 study, Bandura suggested that human functions are rooted in social systems; therefore, personal agency operates within a broad network of social-structural influences. Furthermore, he suggested that “in these agentic transactions, people create social systems to organize, guide, and regulate human activities” (Bandura, 2006, p. 10).

Ross (1998) reviewed a compilation of 88 studies related to teacher efficacy and postulated that, compared to teachers with lower levels of efficacy, teachers with high levels of efficacy implement more strategies for teaching and management techniques to promote student autonomy, decrease student control, differentiate instruction for low-performing students, build students’ self-confidence in their academic capabilities, set attainable goals, and continue to close the achievement gap.

Teacher efficacy has been shown to have a significant amount of impact on educational outcomes—including teacher enthusiasm, motivation, commitment, instructional outcomes, persistence, and student achievement (Dembo & Gibson, 1985; Fuchs & Fuchs, 2001; Hanushek & Raymond, 2006; Henson, 2001; Stecker & Fuchs, 2000; Tschannen-Moran & Johnson, 2011; Ysseldyke & Bolt, 2007). According to research by Cantrell and Hughes (2008), coaching and collaboration are important entities for building capacity and developing teacher efficacy in implementation. Klassen and Chiu (2010) suggested that teacher efficacy impacts a teacher’s ability to carry out a
particular task successfully. It has also been suggested that teachers’ sense of efficacy has effects on the efforts teachers devote into their craft.

Teacher efficacy is believed, theoretically, to influence teachers’ performances (e.g., instructional practices, motivating styles, pedagogical beliefs, and efforts), which in turn, affects student outcomes, such as motivation and achievement (Aydin & Hoy, 2005; Cantrell & Hughes, 2008; Greenfield, Rinaldi, Proctor, & Cardarelli, 2010; Klassen & Chiu, 2010; Klassen et al., 2011; Lee et al., 2010; Protheroe, 2008; Shidler, 2009; Wolters & Daugherty, 2007). When efficacy for teaching is high, teachers tend to utilize a variety of instructional strategies that are autonomy-supportive and positive for student engagement and achievement outcomes—even when faced with challenging situations (Duffin, French, & Patrick, 2012). Teachers with low self-efficacy often experience greater difficulties in teaching, lower levels of job satisfaction, and higher levels of job-related stress (Betoret, 2006; Skaalvik & Skaalvik, 2007). This can be related to Bandura’s (1997) social cognitive theory, which stated that self-efficacy beliefs refer to individuals’ beliefs about their capabilities to successfully carry out a particular course of action, whether for self-development, adaptation, or change. He later stated the capacity to regulate one’s thoughts, motivation, affect, and action through self-reactive influence constitutes one of the core properties of human agency within the conceptual framework of social cognitive theory (Bandura, 2006).

Hoy (2000) built upon Bandura’s efficacy research and posited that vicarious experiences and social persuasion impacted teacher efficacy as much as mastery experiences. Prothero (2008) suggested that the early teaching years were critical in the development of teacher efficacy. This illustrated the crucial need to acquire information
from teachers through surveys such as those used in this study. It is important to see if teachers feel well-trained on the programs they use, as well as the levels of competency that are necessary to successfully use such programs—in efforts to measure the success of student learning. By increasing teachers’ self-efficacy, teachers become better able to ensure the fidelity of using progress-monitoring systems, which in turn, leads to improved student outcomes.
SECTION THREE: METHODOLOGY

Research Design Overview

James, Milenkiewicz, and Bucknam (2008) argued that using qualitative methods aids in extracting the richness of the human experience from participants while using quantitative methods aid in extracting information from a large number of people in order to run simple or complex statistical analysis on certain information. Keeping this perspective in mind, my program evaluation benefited both from data that was demographic in nature (quantitative) and data that provides information regarding staff perceptions and thoughts (qualitative).

To capture this data, my evaluation included a questionnaire (see Appendix A) that measured indicators of teacher efficacy. A total of 40 questions were divided into three sections:

1. The demographic makeup of teacher participants, students, and schools.
2. Teachers’ thoughts concerning progress monitoring and implementation.
3. Teacher participants’ comfort level in using the progress-monitoring tool.

When viewed as a whole, this data gave program collaborators an opportunity to look analytically at the systems involved in implementing a progress-monitoring tool. It also highlighted the impact of teacher efficacy on implementing an effective progress-monitoring system. These relationships are clear from the data—which may ultimately enable collaborators to make critical judgments about the necessary adjustments to enhance the actual process of implementation.

Some of the most valuable data harvested during this program evaluation became more apparent as time went on. As the thoughts and feelings teachers revealed through
the questionnaire—which was part of this study—came to the surface, only then was qualitative data gleaned. As noted, program-monitoring data was deduced with yielded results from the questionnaire that was closely aligned with overall degree of efficacy (e.g., confidence and commitment in the teacher’s ability to use it).

Staff idiosyncrasies, which had either a positive or negative effect on implementation, also became apparent. These included the staff members’ needs for more professional development, more time collaborating with colleagues on progress-monitoring tools, and/or more input in actually choosing the progress-monitoring tools. While these discoveries may seem serendipitous by the order in which they are expressed, my program evaluation supported the enhancement and implementation of progress-monitoring structures through the collection and analysis of participants’ questionnaire responses.

In an effort to gather the most authentic data possible, extreme care was taken while designing the questionnaire—in efforts of eliminating bias regarding personal values as the researcher and the theory and strategy used. Teacher participants provided their answers through an electronic questionnaire, which allowed them to remain anonymous since responses were categorized solely according to grade levels, teaching experiences, the ethnicity of the participant, and subjects taught. The identity of the participating school and progress-monitoring tool was also kept confidential. These security practices were communicated clearly to all participants to both increase the study’s reliability and to ensure to all participating parties that the program’s sole intent was to increase student achievement by implementing evidenced-based programs (such as progress-monitoring systems), and not to simply evaluate the teachers themselves.
Participants

The participants of the program evaluation consisted of seven teachers who taught students between grades 3 and 8 and who used the XYZ Tool. Choosing the appropriate participants for this program evaluation was instrumental in not only promoting the collection of accurate data, but also in ensuring that the information added the greatest value so that administrators could make the best ultimate decisions on how to improve structures to support greater student achievement. Teachers were the sole participants because their thoughts, feelings, and feedback to the study’s survey would be used to improve implementation of the current progress-monitoring system directly. Specifically, the survey could be analyzed to determine the impact that teacher efficacy had on progress monitoring. Stakeholders would benefit the most from understanding the impact of teacher efficacy on implementing a best practice, such as progress monitoring. In this case, the researcher perceived stakeholders as district leaders, school administrators, and school staff who utilized progress-monitoring tools to support teaching and learning initiatives—and who reflect on their implementation practices and/or the challenges with the progress-monitoring tool.

School administrators are charged with meeting the accountability standards set by federal, state, and district mandates. Progress-monitoring systems afford them benchmarking tools to measure their progress toward these expectations. Administrators can also use the data to measure school performance and ultimately make administrative decisions on the allocation of resources based on these results.
District leaders engage individual schools in conversations centered on ensuring that both parties’ expectations are met. District leaders are then mandated to either allow or restrict additional funds based on a given school’s progress toward these identified goals. By using the data from progress-monitoring tools, they are able to make fund allocations in a prudent and confident manner. As a result, district leaders have an obligation and interest in helping schools identify and use such tools. As stated previously, teachers remained the main participants throughout the research because this researcher firmly believe their thoughts, feelings, perceptions, and feedback to the study’s survey were crucial in improving the implementation of progress-monitoring systems. Specifically, their responses could be analyzed to determine the impact that teacher efficacy has on progress monitoring.

**Data-Gathering Techniques**

Data on teacher participation was gathered from a 40-question electronic questionnaire completed throughout a 2-week period. These results were anonymous, as the questionnaires asked teachers to only identify their grade levels taught, teaching experiences, ethnicity, and subjects taught. My response rate was only 25% of the staff. The identity of the participating school and progress-monitoring tool was also kept confidential by using the pseudonyms ABC Elementary School (hereafter referred to as ABC Elementary) and XYZ Tool. Security practices were clearly communicated to all participants for two reasons: One, to increase reliability of the study, and two, to reassure all parties that the intent of the program evaluation was to increase student achievement rather than evaluate teachers. The anonymous results were imported into a Microsoft Excel spreadsheet to analyze.
Patton (2008, Chapter 7) pointed out the analogy of leading horses to water without ever forcing them to drink it. A poignant statement—and one that the researcher remained conscious of throughout this research. While carefully structuring the questionnaire questions to encourage honest feedback, if the teachers refrained from expressing authentic opinions about progress-monitoring systems (for whatever their reasons), a great opportunity would be lost to make progress-monitoring systems better. That being said, the sheer number and variety of personalities involved in this study can prove to be a saving grace in such a situation because even if one or two teachers held back, the data retrieved is still vital.

**Data Analysis Techniques**

Patton (2008) described analysis, interpretation, judgment, and recommendation as necessary components to fully understanding the findings and implications of the program evaluation. He further defined analysis as “organizing raw data into an understandable form that reveals basic patterns and constitutes the evaluation’s empirical findings” (Patton, 2008, p. 478). These guidelines were used while undertaking this study. Quantitative data (including demographic information, the number of respondents, and achievement data) were gathered and data compiled to determine the value of teacher efficacy on implementing a progress-monitoring tool in a more qualitative assessment.

Patton (2008) described interpretation as “determining the significance of and explanations for the findings” (p. 478). As the research data was extrapolated, it was compared to previous research studies then the questionnaire responses were interpreted to eliminate value judgments and personal bias—allowing evaluative thinking to prevail during interpretation. Simultaneously, protocols were put into place to ensure that
participating teachers’ voices were heard, even if the ultimate interpretation was left to me.

With regard to judgement, Patton (2008) described it as “values to determine whether the results are positive or negative” (p. 478). The results of this study were meant to provide evidence-based strategies that would improve process monitoring. Therefore, all the collected data was viewed as informative rather than derogatory or punitive. Developing this perspective should provide stakeholders with a focused view of the study results and allow them to use these results with limited negative judgment.

There is no denying that the individual perspectives of teacher participants can affect the interpretation of the qualitative data. A major focus throughout this research involved ensuring that all judgments reached be based on data and not on opinions. In fact, reaching a consensus based on the facts was the initial goal of reviewing the data. To garner results supporting the goal of the program evaluation, certain procedures and protocols were implemented to ensure that individual judgments led to an ultimate consensus. In the end, it was determined that providing the final interpretation myself (as the researcher) was the best way to achieve this.

Finally, Patton (2008) described recommendations as “the final step to add action to analysis, interpretations and judgment” (p. 478). What are the actionable implications of the findings? Patton suggested that “only recommendations that follow from and are grounded in the data ought to be formulated” (Patton, 2008, p. 478). Recommendations were formulated based on this study according to the belief that the data should be allowed to speak for itself, with recommendations based solely on self-evident practices for after the data was vetted. Value judgments were, therefore, minimized using structures
that promoted the root cause analysis protocol, which ensured recommendations were directly aligned to data.

The next phase of this study, the change leadership plan, provides recommendations to the school community for implementation in a collaborative fashion—which will encourage further efficacy in the implementation of the respective progress-monitoring protocol.
SECTION FOUR: FINDINGS AND INTERPRETATION

Defining Participants

Study participants consisted of certified grades 3-8 classroom teachers who used the XYZ Tool. Participants were recruited from ABC Elementary, which is located in an urban Midwestern school district in the United States. In fact, ABC Elementary is a school similar to one where the researcher currently serves as assistant principal. It serves about 500 students with very similar demographics as my school, as well as teaching staff, expectations, resources, and professional development needs. ABC Elementary is composed of 96% African American students and 4% Hispanic and Caucasian students. Approximately 95% of these students are eligible to receive free or reduced lunch. The school staff, meanwhile, consisted of 28 teachers—including specific teachers for physical education, music, library, visual arts, and technology.

All teaching staff who serviced grades 3-8 students were invited to participate in this study. Of the 28 teachers, 22 were required to administer the Northwest Evaluation Association Measure of Academic Progress (NWEA MAP) Assessment and used the XYZ Tool to administer progress monitoring. Each teacher was given a consent form explaining the study’s expectations. Roughly 50% of the grades 3-8 certified teaching staff returned the consent forms. Upon receiving the signed consent forms from the teachers, the questionnaire was sent electronically—using the teacher’s email address provided on their consent form. Participants were given 2 weeks to complete the electronic questionnaire, taking into consideration their workloads and other responsibilities.
Completed questionnaires did not specifically ask for a participant’s name—only the grade level taught, ethnicity, and the number of years of teaching experience. Granting participants anonymity helped ensure that true feelings about progress monitoring would be forthcoming and helped to dismiss teachers’ hesitations and fears about building administrators using any of the information against them in the future.

Ultimately, only 7 of the 11 teachers who agreed to participate in the study completed and returned the questionnaire. Reminder emails were sent to all teachers who agreed to participate. However, due to the anonymity of the responses, there was no way to identify which of the respondents actually completed the questionnaire. While this was a limited sample size, it did represent a teacher from each grade level.

Of the study’s seven respondents, 57% were African American, 29% were Caucasian, and 14% were Hispanic, as the breakdown in Figure 1 shows.

*Figure 1. Grades 3-8 certified teacher participants from ABC Elementary.*
Consenting participants also varied in teaching experience—from 1 to more than 10 years. All participants were responsible for teaching reading, math, science, writing, and/or social studies. Note that data from the questionnaire does not reflect the entire grades 3-8 teaching staff. It does, however, reflect responses from at least one teacher per grade level. A breakdown of the participant’s demographic information can be found in Table 1.

Table 1
Number of Participants and Years of Experience of Participants at ABC Elementary

<table>
<thead>
<tr>
<th></th>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants (n=7)</td>
<td>14%</td>
<td>29%</td>
<td>14%</td>
<td>14%</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Number of Teachers</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Years of Teaching Experience</td>
<td>More than 10 years</td>
<td>Between 3 and 6 years</td>
<td>More than 10 years</td>
<td>Between 0 and 2 years</td>
<td>Between 8 and 10 years</td>
<td>More than 10 years</td>
</tr>
</tbody>
</table>

Although the sample set of participants is not completely representative of the entire staff, it does represent at least one staff member at each grade level. Given this fact, the composition of the participants’ answers reflect the beliefs of the many educators who are also utilizing progress-monitoring systems.
The consenting teachers came from general education classrooms, general education with inclusion classrooms, and special education classrooms where anywhere from 90–100% of the students were African American. To further break this down, 43% of the classrooms represented were classified as general education classrooms, 43% were general education classrooms with inclusion, and 14% of the classrooms were self-contained classrooms. General education classrooms with inclusion consist of those classrooms where individual services and support are provided to students identified as having special needs—allowing them to remain in a general education setting (Kilanowski-Press, Foote, & Rinaldo, 2010). Special education classrooms are classrooms with students with special needs, of which cannot be addressed in the traditional setting. To better address these special needs, these classrooms have a reduced amount of students and additional assistants to support teaching and learning (Thompson, 2000). Students in this type of classroom may be labeled as learning disabled, autistic, or emotionally/behaviorally disturbed. Despite this, these students are still responsible for taking the same high-stakes assessments as general education students—except for certain accommodations and modifications indicated in their individualized education plans (IEPs). Table 2 breaks down the classrooms represented in this program evaluation. It is important to point out that, regardless of what type of classroom was being represented, the great majority of students were African American.
Table 2
Type of Classrooms Represented in the Program Evaluation from ABC School

<table>
<thead>
<tr>
<th>Type of Classroom</th>
<th>Percentage of Classroom Type Represented</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Classroom</td>
<td>43%</td>
<td>90%–100% African American</td>
</tr>
<tr>
<td>General Education Classroom with Inclusion</td>
<td>43%</td>
<td>90%–100% African American</td>
</tr>
<tr>
<td>Special Education Classroom</td>
<td>14%</td>
<td>90%–100% African American</td>
</tr>
</tbody>
</table>

**Questionnaire Findings**

According to information provided in the questionnaire, all certified teaching participants had received professional development on using XYZ Tool. XYZ Tool provided 2 hours of training, with previously trained staff or administrators providing additional hours of professional development. Additional webinars were made available for teachers to use on an as-needed basis. Webinars and resources provided teachers with information pertaining to adding and subtracting students, assigning modules, running reports, assistance in extrapolating data, and how to contact the company for additional support. These webinars could be found on the website along with other resources and tools to assist teachers with implementation, the assignment of student modules for reading language arts and math, and tools for analyzing and sharing data. In addition, instructional coaches received additional training so they might provide onsite expertise.
to assist teachers when needed (as well as to provide additional training throughout the school year). In the end, the amount of hours (see Figure 2), the experience using the XYZ Tool (see Figure 3), and the confidence level of the professional development received (see Figure 4), varied greatly among respondents. Figure 2 shows how more than half of the participants (57%) received only the basic level 1–2 training, while 29% received more than 7 hours of training.

*Figure 2. Hours of professional development received on XYZ Tool at ABC Elementary.*
Interestingly, when participants were asked to rate the value of the professional development they received on implementing XYZ Tool as a progress-monitoring tool (see Figure 4), less than half (43%) felt their training had been very valuable, while 28% felt that while informational, additional training would have been ideal.
Teachers were then asked how they felt about implementing a progress-monitoring tool to determine if students were actually learning. Here, all of the participants felt they could implement the XYZ Tool as prescribed to positively impact teaching and learning. In fact, despite certain reservations to their own training, all participants strongly believed that progress monitoring was necessary to determine if students were in fact learning.

Gauged on how strongly the teachers encouraged the monitoring system on students, it would appear this view was indeed reflected. The XYZ Tool suggests that students spend a minimum of 120 minutes a week completing modules in reading and math without fail, as well as completing benchmark assessments every 5 weeks. The modules the students completed were based on the RIT band score the students received.
on the NWEA MAP assessment. The XYZ Tool used individual student information on the NWEA MAP assessment to identify individual current performance levels in reading and math to diagnose specific skill and concept gaps, and to use digital learning activities to prescribe individualized learning paths for each and every student. Information gathered from the questionnaire revealed that each teacher was responsible for ensuring that their students spent at least 60 minutes on the reading/language arts modules and 60 minutes on the mathematics modules per week—to include a pre- and postassessment every 5 weeks. The lessons included research-based activities that were created to support classroom instruction. Using this prescribed plan, 71% of the participants indicated they administered progress-monitoring methods following the stated guidelines. Due to the limitations of this study, the other 29% of teachers who did not administer the XYZ Tool structures did not disclose their reasons for avoiding doing so.

As previously mentioned, most teachers indicated they believed that progress monitoring was a necessary tool to determine if students were learning. However, 100% of the participants indicated they would not attend any additional professional development unless it was mandated. As Figure 4 shows, while 28% of the participants agreed they would like to receive refresher professional development during the school year, 29% previously attended the training and did not receive any additional training, and 43% found the professional development very valuable.

The data revealed that teachers with the most teaching experience did not see a need for additional professional development. These findings seem to support research by Dusenbury et al. (2005), which revealed that seasoned teachers were more knowledgeable of programs and better able to implement them with fidelity. Limitations
to the study do not reveal reasons as to why participants did not desire refresher professional development; nor do the study results disclose the quality of the training the teachers received or how much formal coaching or technical assistance teachers might require. One can assume that novice teachers would require more professional development, coaching, and support. A deeper investigation might reveal that the XYZ Tool website provided enough information and resources.

The questionnaire asked certified teacher participants about both their personal beliefs and how they felt others might feel about progress monitoring. Figure 5 shows that the great majority (86%) of participants either strongly agreed or agreed that the impact of progress monitoring on student learning was valuable. Interestingly, when asked whether they believed their colleagues felt the same, only 29% strongly agreed while 57% agreed (see Figure 6). In both cases, only 14% remained undecided.

*Figure 5. Do you value the impact of progress monitoring on student learning?*
Participants all agreed they felt comfortable with all the tools they had to implement progress monitoring effectively. Limitations to this study prevented the researcher from identifying those tools. The sample size in the study represents third through eighth grade teachers but not a true representation of the entire school. Further research would need to be conducted to garner additional information.

Research suggested that a key variable may have been responsible for the effectiveness of research-based programs: quality implementation (Dusenbury et al., 2003). In light of this, the responses from the questionnaire illuminated some interesting teachers’ views concerning progress monitoring. More than half of the teachers viewed progress monitoring as just another cumbersome task for which they were responsible. One might therefore assume this generally dim view about progress monitoring would probably have a negative effect on the implementation process. In fact, it might help to
explain why 29% of the teachers did not administer the XYZ Tool as prescribed, even if the reasons for not doing so were not disclosed. Interestingly, all participants felt that progress monitoring was necessary and not a waste of time. Teachers believed that progress monitoring was a task necessary for informing teaching and learning.

That being said, results from the questionnaire revealed that only 53% of the teachers were satisfied with the XYZ Tool. Sadly, this is where the quantitative outcomes of this study become most apparent. Further research is needed to determine why teachers were not satisfied with the progress-monitoring tool—research that would be better conducted using face-to-face interviews and more open-ended questions. Unfortunately, this is something this researcher did not consider when designing the original questionnaire.

The last section of the questionnaire inquired into teacher participants’ feelings about the progress-monitoring system used in their school. When asked how much they felt their opinions were valued when it came to the implementation of XYZ Tool (see Figure 7), more than half felt that their opinions mattered very little (29%) or none at all (28%). None of the participants felt their opinions mattered a substantial amount or even quite a bit. Research findings from Durlak and Dupre (2008) indicated that shared decision making enhances implementation and empowers stakeholders. Research further supported that shared decision making increases the effectiveness and sustainability of programs (Shediac-Rizollah & Bone, 1998).
Figure 7. How much do you think your opinion matters in the implementation of progress monitoring structures at your school?

Teacher participants further reported they had very little input in the way the progress-monitoring system was delivered to students (see Figure 8). Of these, only 43% reported having quite a bit of influence, while 29% reported having some, and 28% reported having very little. Researchers found that several characteristics affected high-quality implementation:

1. Ensuring the participants received the recommended exposure to the program.
2. Teachers’ knowledge, familiarity, thoughts, and feelings about the program being implemented.
3. Teachers’ knowledge of the program being implemented.
4. Teachers’ adherence to the program. (Dusenbury et al., 2005)
Further research is needed to support how valuable teacher efficacy impacts the implementation of progress monitoring. Despite the limitations of this study, it was clear that the participants, while extolling the benefits of the program, did not feel fully invested in its overall implementation. More often than not, their responses gave the feeling they were silent partners in a process they could not control. In effect, allowing teachers to have greater input in how the programs are enacted and monitored might allow for a more effective implementation—something determined to be somewhat lacking in this study. Moreover, additional research utilizing more detailed teacher observations and teacher interviews might be required to further support this program evaluation. Substantial research supports the notion that teacher efficacy directly correlates to student achievement gains, which would seem to point to the need for more research on teacher efficacy in regards to how providing teachers with greater stakes in the process might ultimately produce a more positive implementation (Akbari &
Tavassoli, 2014; Dembo & Gibson, 1985; Fixen et al., 2005; Gibson & Eren, 2009; Goddard, Hoy, & Hoy, 2000; Tschannen-Moran & Hoy, 2000).
SECTION FIVE: JUDGEMENT AND RECOMMENDATIONS

This paper’s primary research question involved determining the impact of teacher efficacy on the implementation of progress-monitoring programs. Numerous researchers have suggested that teacher efficacy impacts the implementation of progress-monitoring structures. Aydin and Hoy (2005) suggested teacher efficacy is believed, theoretically speaking, to influence teachers’ performances, which in turn, affects student outcomes, such as motivation and achievement. Ross (1998) found that when compared to teachers with lower levels of efficacy, teachers with high levels of efficacy do the following:

1. Implement more strategies for teaching.
2. Implement management techniques to promote greater student autonomy.
3. Decrease student control.
4. Differentiate instruction to low-performing students.
5. Build students’ self-confidence in their academic capabilities.
6. Set attainable goals.
7. Continue to close the achievement gap.

Although research garnered from this program evaluation ultimately fell short of quantifying the effectiveness of implementing program monitoring, it did indicate, through various teacher-participant perceptions, that teacher efficacy does impact the effectiveness of implementing progress-monitoring programs. In the end, despite extolling the benefits of the program, it was clear that a significant number of the teacher participants did not feel fully invested in its overall implementation. These results and conclusions however are represented by a limited sample.
The research also supported earlier studies indicating that some teachers found progress monitoring just another mandated cumbersome task. Holding this perspective about a resource tool/resource would probably have a negative impact on its implementation. Research revealed that 53% of participants were satisfied with the progress-monitoring tool currently being used at their school. Based on these findings from the limited sample, 47% of participants appear to feel otherwise. Again, earlier studies seem to support this. Dusenbury et al., 2005, for example, postulated that dosage, adherence, quality of process, adaption, teachers’ attitudes about the program, teachers’ content knowledge, and teachers’ prior experiences are key variables in the quality of implementation.

Further, research as to why teachers conclude that progress monitoring is a valued process, but do not want to extend their efforts to learn how to increase their knowledge base, needs to be clarified.

This program evaluation also sought to determine procedures that could be implemented to increase teacher efficacy. Hoy (2000) suggested that some of the most influential circumstances impacting teacher efficacy comes from mastery experiences during student teaching. Guskey (1988) examined the relationship of teacher efficacy and implementation, and determined that teachers with higher levels of efficacy had an easier time when implementing a new practice. Professional development seems to play a role in increasing teacher efficacy and implementation. Tschannen-Moran and McMaster (2006) reported that when partnering teacher efficacy and implementation for a reading program, teacher efficacy dropped for many teachers participating in professional development. That study supports the fact that follow-up coaching might not be the best
strategy to support increased teacher efficacy. It is hard to argue with the fact that 100% of the participants reported that they would not follow any refresher courses unless they were mandated to do so.

The fact that the great majority of participants (86%) either strongly agreed or agreed that the impact of progress monitoring on student learning was valuable should not be overlooked. In the end, allowing participants to feel like more empowered stakeholders, as opposed to simply burdening them with more training, is the best course of action.

**Recommendations**

Based on the information obtained from this program evaluation, this researcher makes the following recommendations for elementary schools implementing progress-monitoring structures to monitor student achievement. Research garnered from this program evaluation supports that teacher efficacy impacts the quality of implementation on researched best practices—including progress monitoring. Dusenbury et al. (2005) suggested that a key variable influencing the effectiveness of programs in school settings is having a quality implementation structure in place. While quality implementation does not depend solely on teacher efficacy, it play an important role. Teachers with a high sense of efficacy are more likely to acquire new knowledge and implement new strategies with fidelity. The following components are recommended, when implementing progress-monitoring structures in an elementary school:
1. Stakeholder Buy-In—When asked how much their opinions were valued when it came to the implementation of the XYZ Tool, more than half of the study’s participants felt their opinions mattered very little or not at all. When implementing progress-monitoring structures, it is important to ensure that the tool being selected meets the needs of the population of students and that teachers are included in the tool selection process. Such teacher buy-in will contribute to teachers being more vested in the process and lead to more effective implementation.

2. Providing Professional Development—Ensure that the initial professional development provides teachers with a solid foundation—therefore increasing teacher efficacy in implementing progress-monitoring structures. Ineffective professional development can have a poor effect on quality implementation.

3. Continuous Collaboration and Coaching—Support in implementation is essential in supporting teachers. Teaching collaboration and coaching have the possibility to help develop a teacher’s efficacy as he or she implements progress-monitoring structures. Research from Bean (2004), Darling-Hammond and McLaughlin (2011), and Tschannen-Moran and McMaster (2006) supported this.

4. Leadership Support—Although this last point was not directly addressed in the study, it is important that school administrators pay attention to promoting efficacy, finding intrinsic motivators when building capacity within teachers. Administrators should provide multiple opportunities for teachers to have mastery experiences to promote teacher efficacy. Guskey’s (1988) research
indicated that the majority of instructional improvement programs fail because they do not take in consideration key motivators to engage in the professional development. While teacher efficacy has been linked to impacting student achievement, an increase in student achievement may also contribute to an increase in teacher efficacy (Guskey, 2002).
REFERENCES


Shapiro, E. S. (2008). Best practices in setting progress monitoring goals for academic skill improvement. *Best practices in school psychology*, 141–158.


APPENDIX A—QUESTIONAIRRE

Impact of Teacher Efficacy on Progress Monitoring Structures Questionnaire

The purpose of my study is to determine the impact of teacher efficacy, a teachers’ thoughts and feelings on the implementation of progress monitoring structures used in many urban schools in Illinois. Epstein & Willhite (2015) defines teacher efficacy as “the belief teachers have in their ability to impact student learning” (pp. 82-189). Progress monitoring structures are the practices and guidelines established to monitor student performance data to continuously evaluate teaching and learning. Research suggests that when progress monitoring systems are implemented with fidelity student achievement increases, teacher’s focus on learning targets increases, and schools are better able to align their resources to state and federal expectations (Fixsen et al., 2005).

This questionnaire is designed to help gain a better understanding of thoughts and feelings about progress monitoring.

Section 1

Please select the best answer below.

1. Participation in this research is strictly on a voluntary basis. You have the right to withdraw at any time without negative consequences. You will have an option at the end of this questionnaire to receive a copy. Participant's names will never be utilized in drafts or the final version of this research project. Although the results of this study may be published, personal information that could identify the participants will not be included.

Please indicate your “agreement to participate in research” which specifies their unconditional right to withdraw from the research by selecting agree or disagree below.

1 = Agree
2 = Disagree

2. How many years have you been teaching?
   1 = 0 to 2 years
   2 = 3 to 4 years
   3 = 5 to 6 years
   4 = 7 to 9 years
   5 = More than 10 years

3. What is your gender?
   1 = Male
   2 = Female
   3 = Prefer not to answer
4. What is your ethnicity?
   1 = Black or African American
   2 = White or Caucasian
   3 = Hispanic, Mexican American, or Latino
   4 = Other   Explain____________________
   5 = Prefer not to answer

5. What grade do you currently teach?
   1 = 3rd Grade
   2 = 4th Grade
   3 = 5th Grade
   4 = 6th Grade
   5 = 7th Grade
   6 = 8th Grade

6. What percentage of the students in your classroom are girls?
   1 = 0% - 25%
   2 = 26% - 50%
   3 = 51% - 75%
   4 = 76% - 99%
   5 = 100%

7. What percentage of the students in your classroom are boys?
   1 = 0% - 25%
   2 = 26% - 50%
   3 = 51% - 75%
   4 = 76% - 99%
   5 = 100%

8. How is your classroom classified?
   1 = General Education classroom only
   2 = General Education classroom with inclusion
   3 = Special Education classroom
   4 = Other   Explain____________________

9. What subject area do you teach?
   1 = All core subjects (Reading, Writing, Math, Science, and Social Science)
   2 = Reading and/or Writing Only
   3 = Math Only
   4 = Science Only
   5 = Social Science Only
   6 = Other   Explain____________________
10. How many students are at your current school?
   1 = Between 100 to 200 students
   2 = Between 201 to 300 students
   3 = Between 301 to 400 students
   4 = Between 401 to 500 students
   5 = Over 500 students

11. What is the demographic makeup of your classroom?
   1 = 90% - 100% African American
   2 = 80% - 89% African American
   3 = 70% - 79% African American
   4 = 60% - 69% African American
   5 = Less than 59% African American

12. Where do you administer the current progress monitoring tool?
   1 = Only in the technology lab
   2 = Only in my classroom
   3 = Occasionally in the technology lab, but in my classroom most of the time
   4 = Occasionally in the classroom, but in the technology lab most of the time
   5 = Half of the time in my classroom and the other time in the technology lab

13. Have you received professional development on the current progress-monitoring system at your school?
   1 = Yes
   2 = No

14. How many hours of professional development did you receive?
   1 = None
   2 = 1 to 2 hours
   3 = 3 to 4 hours
   4 = 5 to 6 hours
   5 = 7 hours or more

15. How valuable was the professional development you received on the progress-monitoring system?
   1 = Not valuable at all
   2 = It was informational, but I needed additional training
   3 = I previously attended this training, no additional information was distributed
   4 = Very valuable
   5 = I did not receive any professional development for this progress-monitoring system
16. How many years have you been using the current progress-monitoring system?
   1 = This is my first year using this system.
   2 = This is my second year using this system.
   3 = This is my third year using this system.
   4 = This is my fourth year using this system.
   5 = I have been using this system five or more years.

Section 2

Please rate the questions using the following numbers:
   1 = Strongly Agree
   2 = Agree
   3 = Undecided
   4 = Disagree
   5 = Strongly Disagree

17. I feel confident that I can implement progress-monitoring structures with fidelity to positively impact teaching and learning.

18. I feel confident that progress monitoring is not necessary to determine if students are learning.

19. I administer the progress-monitoring structure exactly the way the system is supposed to be all of the time.

20. I implement progress-monitoring structures the way the system is supposed to be implemented most of the time.

21. I implement progress-monitoring structures as best I can, but I need more professional development.

22. I would attend the progress monitoring professional development, but the timing is not convenient for me.

23. I feel more refresher professional development should be provided during the school year.

24. I value the impact of progress monitoring on student learning.

25. I have all the tools necessary to implement progress monitoring.

26. The teachers at my school value the impact of progress monitoring on student learning.

27. I use progress monitoring to inform my teaching.
28. I share progress monitoring data with parents.

29. I share progress monitoring data with students.

30. I have opportunities to collaborate with colleagues about progress monitoring.

31. Progress monitoring is just another task in which I am held accountable.

32. I feel that progress monitoring is a waste of time.

33. I feel that progress monitoring is an important part of the instructional cycle.

34. If implemented properly, progress monitoring is the most important way to identify if students are learning.

35. I am satisfied with the progress monitoring tool used at my school.

36. I don’t feel that the current progress-monitoring tool my school uses is beneficial to the students I teach.

37. If I was given more information about the progress-monitoring tool used at my school, I would work harder to make sure it was implemented with fidelity.

Section 3

Please indicate your opinions about the questions using the following numbers:
   1 = None at all
   2 = Very little
   3 = Some influence
   4 = Quite a bit
   5 = A substantial amount

38. How much input were you allowed to give on the selection of the current progress-monitoring tool used at your school?

39. How much input were you allowed to give on the progress-monitoring structures used at your school?

40. How much do you think your opinion matters in the implementation of progress-monitoring structures at your school?