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Instructional Coaching and Reflective Practice

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by
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Abstract

Instructional coaching as a mode of professional development has gained popularity among school districts for its job-embedded, ongoing nature (Knight, 2012). Absent from the field is an effective method of measuring the impact of coaching. In attempting to isolate a variable that is high leverage, the reflective practice of teachers was examined. The study used a teacher survey to collect data on various aspects of a coaching program and teacher reflectiveness. There was not enough evidence to confirm that reflective practice makes any difference in coaching participation, frequency, or the perceived value of coaching. It is worth noting that almost every teacher rated themselves in the top two categories for reflection. Teachers in a school where all were required to work with an instructional coach found coaching to be more valuable and participated more frequently than those who work in a school where coaching was optional. Teachers newer to the profession also participate in coaching more often. Choice in regard to coaching experiences, timing, and purpose were found to be important to teachers. Further study is needed to examine the causes of these findings and continued efforts are needed to discover a method of measuring reflectiveness efficiently without using self-reported data.

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Chapter I: Introduction

The study of instructional coaching as a means for effective professional development is a relatively new area of research. Over the last 15 years a multitude of coaching implementation models have been put into place in response to subpar performance of traditional professional development (Knight, 2009). There are many and varied aspects of this topic: school coaching models, determining the effectiveness of coaches, the impact coaching has on student achievement, and types of coaching (cognitive, content, literacy, etc.) to name a few. Questions still remain regarding the cost-effectiveness of instructional coaching models, as they often cost six to 12 times as much as traditional professional learning (Knight, 2012). Despite the cost, the job-embedded, ongoing nature of an instructional coaching model aligns with what research suggests is the best form of professional development: "…innovative, collaborative, and sustained…" (Knight, 2012, p. 57). Reviewing the current literature published in the area of coaching reveals that there is work to be done in understanding and refining this method of professional learning.

Introduction to the Problem

The work of Garcia, Holland, and Mundy (2013) supports the assertion that additional research is needed in the area of instructional coaching, specifically regarding its impact on improving student achievement. An analysis completed by Denton and Hasbrouck (2009) noted multiple areas of coaching that need further research, in particular defining the most effective coaching system for a school. Current research, as seen in the work of Dillard (2015), demonstrates that the impact of instructional coaching is severely lacking in the literature. He stated that "...more studies need to take place that directly measure teacher growth and change in practices through the use of approaches other than self-reported data" (p. 107). There are

existing studies, including the one conducted by Rush and Young (2011), that use survey data submitted by teachers to assess the impact of a system-wide coaching program. Still other studies rely on instructional coaches to evaluate the impact of their work (Smith, 2012). Determining the impact of the ever growing practice of instructional coaching remains a challenge – an efficient yet meaningful tool is required to provide useful information regarding program effectiveness. Focusing on one, high leverage aspect of teacher practice as a means of measuring the impact of instructional coaching may begin to fill this current gap in research.

Background of the Study

It could be argued that if teacher practice is improved, student achievement should increase. If the effectiveness of instructional coaching were to be measured by the change in student achievement, it would be very challenging to isolate the variables in such a way as to show direct correlation between coaching and student achievement. If a correlation could be found, it would justify the implementation of coaching models in school districts, especially those that are struggling financially. A key trait of teachers who are improving their practice is that they are reflective (Dewey, 1933; Etcheidt, Curran, & Sawyer, 2012; Hargreaves, 2004; Kalk, Luik, Taimalu, & Taht, 2014). A successful instructional coach supports teachers in such a way that they become more reflective about their practice (Hall & Simeral, 2008). Hall and Simeral (2008) asserted that "…a teacher's ability to self-reflect is directly linked to his or her classroom effectiveness" (p. 38). With this in mind, a credible way to measure the effectiveness of instructional coaching is to measure the development of a teacher's reflective practice. The persisting challenge becomes finding a credible method of measuring the impact of instructional coaching on teacher reflective practice.

There is a gap in research regarding instructional coaching and teacher reflection. Camburn and Han (2015) stated that further study is needed to discover the best way for instructional coaches to support teachers in the development of reflective practice. Rodgers (2002) acknowledged that without a partner in the work of reflective practice, teachers may cease to engage in the act even once their reflective skillset is developed. A method for measuring reflective practice among teachers is also needed, noted Jaeger (2013), along with an investigation into how a teacher's growth in the area of reflection correlates to student achievement. Hays and Gay (2011) recommended that research be conducted in the area of teacher reflection, including clear definitions of the skills to be cultivated and the creation of measurement tools to monitor progress. The need is also apparent for an examination of how reflective practice should be structured for teachers, along with identifying specific professional development efforts that promote reflection (Zhao, 2013). Finally, Rodgers (2002) asserted that more research is needed regarding the long-term impact of reflection on teacher practice along with identifying explicit connections to student learning as a result of the enduring effect.

Reflection is developed and promoted when debriefing and planning with an instructional coach (Knight, 2007). It is important that teachers understand that "reflection is…more than just thinking; it is a recursive intellectual process involving action (experience), reaction (reflection), more (experimental) action and more reflection" (Cornish & Jenkins, 2012, p. 161). Having this process modeled and encouraged by an instructional coach is essential for teachers at all levels of reflective practice—including those who currently lack the skill of being reflective and those who have stalled out in their reflective growth and need to be pushed to dig deeper.

The principal fodder for reflection is personal experience (Rodgers, 2002). For teachers to truly learn, they need to engage with their own classroom, processing that environment as it is

one with which they are familiar and invested (Rodgers, 2002). Working with an instructional coach to tease out the intricacies of a dynamic environment such as a classroom makes reflective practice possible—having a facilitator and partner in the process has the ability to make this process more meaningful and substantial.

Statement of the Problem

There are various models of instructional coaching—some schools require teachers to work with an instructional coach while others choose to leave participation (or enrollment) in coaching optional. In either scenario, there are teachers who work with a coach on a regular basis (perhaps through multiple, intensive coaching cycles or through weekly sessions with their coach), and there are teachers who work with a coach as little as once a year. The challenge lies in measuring the impact of a coaching program, attempting to refine a program by determining next steps, or validating a program that is being implemented with so much variation. The problem becomes determining a method of measurement that supersedes the variations, focused around a high leverage, desired outcome of the program implementation.

Purpose of the Study

The purpose of this study was to measure the impact instructional coaching has on the reflective practice of teachers. To do this, various aspects of a coaching program and reflective practice were considered, including a teacher's engagement in coaching. The goal of this research was to determine whether or not assessing the reflective practice of teachers can be a measurement of the impact of an instructional coaching program, focusing on that one element of teacher practice and using it to determine the success of an overall program (as the development of reflective practice should be a natural result of effective coaching).

Rationale

The ability to be a reflective professional is a career-long skill, one that can influence all aspects of a teacher's practice (Hall & Simeral, 2008). As Schön (1983) noted, professionals who can reflect and respond in the moment of their work are able to navigate surprises, challenges, and uncertainties, ultimately growing professional skillset. Fostering reflective practice among teachers encourages a schoolwide mindset of continuous improvement, sustained through inquiry and learning (York-Barr, Sommers, Ghere, & Montie, 2006). Student success is driven by teacher success, Hall and Simeral (2008) argued, and teacher success can be structured and supported through self-reflection—partnering with an instructional coach is an effective way to put this idea to action.

Research Questions

There were three research questions for this study:

1) What difference, if any, exists in teachers' use of reflective practice based on whether or not they work with an instructional coach?
    a. Is there a difference in reflective practice based on coaching frequency?
    b. Is there a difference in reflective practice based on the perceived value of coaching?
2) What relationship, if any, exists between teachers' reflective practice as it relates to teaching and their self-reflective practice as it relates to everyday behaviors?
3) What difference, if any, exists in teachers' level of participation in coaching based on the instructional coaching model?

Significance of the Study

Not all instructional coaching programs are created equal, nor are all instructional coaches of high quality. Incredible coaches lead to solid coaching programs (Knight, 2007). To ensure the best, a measurement tool to assess effectiveness of coaches and overall coaching programs would be useful. With the many variables swirling around program design, implementation, and coaching methodology, an isolated variable needs to be identified. Knowing that professional growth occurs when teachers are reflective (Danielson, 2009; Knight, 2011; Peterson, Taylor, Burnham, & Schock, 2009), this study used an instrument that sought to determine the relationship between working with a coach and teacher reflective practice.

This was also of interest as instructional gains are possible when teachers participate in job-embedded professional learning that provides opportunities for reflection while partnering with instruction experts such as an instructional coach (Camburn & Han, 2015; Danielson 2009). Perhaps this is why some schools choose to require their teachers to be coached. This study aimed to fill a gap in research by contributing analysis of the differences, if any, found in reflective practice among teachers who are required to work with an instructional coach versus those for which coaching is optional.

Camburn and Han (2015) examined the relationship between teacher reflection and changes in instructional practice, considering variables such as types of professional development and systems of support in a school. They found a positive association between a teacher's engagement in reflective practice and instructional change, along with a significant positive association between a teacher working with an "instructional expert" and their participation in reflection (Camburn & Han, 2015). Focusing exclusively on the professional development model of instructional coaching, this study seeks to add to the body of knowledge

by examining these ideas further, including variables such as level of engagement in coaching and school expectations for coaching.

Definition of Terms

Instructional Coaching

A job-embedded, ongoing form of professional development in which there is a focus on professional practice grounded in a partnership between a teacher and a coach. It is non-evaluative and dialogue based (Knight, 2009).

Reflection or reflective practice

A cyclic process of inquiry and processing by which understanding is deepened and meaning is made. It usually results in action, either immediate or delayed (Cornish & Jenkins, 2012).

Assumptions and Limitations

Measuring reflective practice can be challenging in that professionals likely want to be seen as reflective—it is a desirable quality, one that seems as though all professionals should be able to classify themselves as such. Any self-reported data regarding reflective practice should be carefully used and balanced with additional methods of measurement.

Also, instructional coaching programs are not standardized, even within some districts. Variations can occur in expectations, activities, and time spent, to name a few. Therefore, when examining the impact of a coaching program, it is important to do so with the lens that a measurement of one program may not fully be applicable to another program.

As with any correlational design, this study cannot produce analyses that infer causation from any suggested correlation findings. Even if variables were found to have correlation that cannot determine whether or not change in one variable was caused by change in the other, it

merely shows that a relationship exists. Determining correlation can support further study in the area of identifying if causation exists.

Nature of the Study

This study was quantitative in nature, investigating the connection between reflective practice and instructional coaching among middle schools teachers in the same school district. A survey was conducted to gather data, which was analyzed to discover what, if any, correlations and differences exist among the variables of reflective practice, participation in coaching, and the structure of coaching (required or optional). Additional consideration was given to general self-reflective practice as it relates to specific reflective practice in the teaching profession, mainly in an attempt to mitigate one of the limitations listed above.

Organization of the Remainder of the Study

A discussion of literature regarding instructional coaching and reflective practice is provided in the next chapter, followed by a chapter including the detailed methodology of how the study was conducted. After an examination of the results found in Chapter Four, the final chapter provides conclusions, implications, and recommendations based on the findings of this research.

Chapter II: Literature Review

To foster a willingness to change practice, rather than a steadfast hold on the status quo, teachers must be given support—someone to work alongside them. Attempting to force new learning upon teachers with the requirement that it is implemented in their classroom on their own volition will rarely yield the desired result (Knight, 2013). This is where the implementation of various programs in schools has fallen short—the learning experiences were quality, yet the execution of the strategies were often only partially attempted or abandoned altogether due to the teachers failing to reflect on the impact of the implementation in their classroom, noting what changes they should make to enhance their effect and how they could adjust their practice to make it stronger.

History of Coaching

In response to the awareness that as a whole, traditional forms of professional development were not effective in sustaining changes in teacher practice, including deep implementation, forms of instructional coaching began appearing in education in the 1980s (Showers & Joyce, 1996). The high-cost nature of coaching programs continue to raise questions to some wondering if this model is truly worth the expense (Knight, 2012). If funds allotted for teaching positions are being used to fund instructional coaches, a coaching program can be contentious in that rather than reducing class sizes teaching positions are being given to instructional coaches. However, some teachers are strong advocates for instructional coaching, arguing that it is a personalized professional development model that is supportive, encouraging, and leads to improvement in their practice.

Coaching Models

Instructional coaching is meant to be a method of professional development that supports change in teacher practice, thereby improving student learning. To sustain change in a school through an instructional coaching model, Fullan and Knight (2011) asserted that coaches must be system leaders, partnering with a principal who is an instructional leader such that a vision for the school is formed and executed. Barkley (2015) explained that a principal needs to ensure that an instructional coach's role is clearly defined and that the coach's time is being spent working with teachers with the overarching goal always being trying to increase student achievement. Hall and Simeral (2008) also called for a clearly defined role for an instructional coach, along with a solid partnership between the coach and administrator, to have a successful program implementation.

There are varying theories on who should work with an instructional coach and how the process begins (Knight, 2007). Some system-wide adoptions of instructional coaching require teachers to work with a coach—others keep participation optional and put the responsibility on the coach to enroll participants. Working with unwilling participants can arguably be a waste of a coach's time; however, as long as clear expectations are set for both teacher and coach and a teacher agrees to try, it can be a model that works (Barkley, 2015).

When a teacher engages in the coaching process, they are doing more than just receiving feedback—they are participating in the reflective process, something that is dynamic and cooperative (Yopp, Burroughs, Luebeck, Heidema, Mitchell, & Sutton, 2011). Through questioning and hypothesizing, while processing and synthesizing, teachers improve their personal reflective practice. Various models of instructional coaching exist, including the Partnership Approach (Knight, 2007), Cognitive Coaching (Costa & Garmston, 2016), and Peer

Coaching (Robbins, 1991), to name a few. Ultimately, the purpose of any model of instructional coaching is similar: to provide ongoing, job-embedded professional learning for teachers.

Attempts to Measure Coaching

No matter what model of instructional coaching is being used, a method of measuring the impact of the program is required, not only to assess the implementation of said program but also to progress-monitor its impact. A challenge for measurement exists due to the multitude of variables that exist in most coaching plans. In his dissertation, Dillard (2015) surveyed teachers, asking questions about how they changed their practice after working with a coach, contrasted with their level of participation in coaching and the activities in which they participated. Rush and Young (2011) also used a survey to measure the impact of a coaching program, asking teachers to answer questions that explored their beliefs about the impact, their perceptions of student learning, and their degree of participation in the program. Measuring coaching based on teacher perception is not unwarranted; however, seeking to find an additional scale to assess the impact on teacher practice by focusing on an outcome other than perceived change will add depth to the overall evaluation of a coaching program's effectiveness.

Value of Reflection

A high leverage aspect of teacher practice is the ability to be reflective. The teaching practice of skillful educators "…is characterized by an intentional competence that enables them to identify and replicate best practice, refine serendipitous practice, and avoid inferior practice. Because of their ability to reflect, great teachers know not only *what* to do, but also *why*" (Danielson, 2009, para. 2). The danger of not being reflective is that teachers continue forging through the profession repeating their practice without discerning merits or faults, thus remaining stagnant in their growth as an educator (De Leon & Pena, 2011). Moreover, if

professionals are not given the opportunity to reflect and make adjustments, if they are instead expected to adhere to strict mandates to execute their job, they are probably not learning nor enjoying their work (Knight, 2011). Cornish and Jenkins (2012) described learning to be reflective as a step in the developing process that is becoming a quality teacher, as teachers of merit are able to self-assess, work to improve, and recognize areas of growth. Hall and Simeral (2008) postulated that a teacher's ability to be self-reflective is the most valuable of all methods and strategies in the profession, due to the longevity and residual benefits of the skill. Farrell and Ives (2015) summarized the sentiment: "Engaging in…evidence-based reflective practice enables teachers to articulate to themselves (and others) what they do, how they do it, why they do it, and, ultimately, what the impact of one's teaching is on student learning" (p. 595).

Ultimately, for reflective practice to be a high leverage technique for teachers it must lead to an increase in student learning. The connection between reflective practice and student learning is observed by Rodgers (2002) to be intricate and imperative:

> The power of the reflective cycle seems to rest in its ability first to slow down teachers' thinking so that they can attend to what is rather than what they wish were so, and then to shift the weight of that thinking from their own teaching to their students' learning. The shift, when it happens, is a profound one that results in relief and even exhilaration when they finally see that, as one teacher said, "This isn't about me!" It is, of course, about the teacher and her teaching, but only as they stand in relationship to the students and their learning. (p. 231)

Reflective teachers critically analyze their craft in a variety of ways with the ultimate goal being increasing student learning. As they plan lessons, determine instructional methods, assess student understanding, and establish their next steps, reflective teachers apply their processed

observations in an intentional way, making decisions based on reason and evidence (Rodgers, 2002).

Successful student learning can be linked to a teacher using a cyclic process of reflection that includes questioning practices that focus on improving educator skill (Gningue, Schroder & Peach, 2014). According to Knight (2007), using U.S. Army leadership protocol as a model, there are four overall guiding questions that an instructional coach should use to guide reflective practice: "What was supposed to happen? What really happened? What accounts for the difference? What should be done differently next time?" (p. 130). Fostering a reflective mindset through questioning by a coach not only pushes teachers to think more critically about their practice, but also models a process for teachers that they can adopt to become more reflective on their own.

Methods of Developing Reflection

There are two types of reflection that are generally accepted: reflection-in-action and reflection-on-action (Rodgers, 2002). The first type is done in real-time, a kind of immediate response that occurs within the classroom. The second type, reflection-on-action, happens before or after teaching occurs—a teacher processes and plans outside of the classroom environment using understandings collected during previous lessons (day before, unit before, year before, etc.), making informed and intentional decisions after first seeking to understand what has happened along with current reality. Being coached allows teachers to develop the skill of reflecting-in-action as they work to slow their thought process and analyze events with their coach reflecting-on-action (Rodgers, 2002).

A practice that helps teachers become more reflective is to watch themselves and others. According to De Leon and Pena (2011), when teachers reviewed their videotaped lessons

they were able to see how planning a lesson and teaching it are connected, but that planning and teaching are two different skills, each of which can be refined and improved upon. The art of teaching can be seen through video, and teachers are able to hone in on specific elements of their teaching such that they can focus on improving small pieces that can make huge changes in their overall instruction (Knight, Bradley, & Hock, 2012). It is noted by McCullagh (2012) one of the best elements of video reflection is that it can be done on the teacher's timetable – the urgency to discuss a lesson immediately after it is completed (lest components are forgotten) is eliminated through the use of video.

Another side benefit of video reflection is that teachers are more motivated to change their practice after seeing it before them (McCullagh, 2012). Some argue that real-time coaching (via virtual coaching) can be the most efficient form of support for teachers, allowing immediate adjustments to take place in the classroom (Rock, Zigmong, Gregg, & Gable, 2011). If teachers are hesitant to have their teaching recorded, an alternate option that yields similar results is watching colleagues teach alongside an instructional coach. This can lead to meaningful reflective conversations as coaches model the reflective process and the observing teachers are given a non-threatening venue to analyze teaching practice (Knight, 2007).

The process of developing reflective teachers is not isolated to a single methodology. It has been shown that it is possible to teach reflective methods through practice as teachers complete an action research cycle, participating qualitative studies (Carlo, Hinkhouse, & Isbell, 2010). Rodgers (2002) advocates for a "…structured process of reflection…" such that teachers learn to become "…present – to see student learning: to discern, differentiate, and describe the elements of that learning, to analyze the learning and to respond, as John Dewey says, 'intelligently'" (p. 231). Hall and Simeral (2008) proposed a rubric that coaches can use to

develop a teacher's reflective practice. They discuss "The Continuum of Self-Reflection" and demonstrate characteristics of teachers at four distinct stages on the spectrum – Unaware, Conscious, Action, and Refinement (Hall & Simeral, 2008).

Hagevik, Aydeniz, and Rowell (2012) used a different rubric to examine four levels of reflection—Routine, Technical, Dialogic, and Transformative. They found that after participating in action research, beginning teachers often start at various levels of reflection. Upon completing their study, they stated that in the future they will provide the rubric to pre-service teachers prior to evaluating them so they can understand what they are striving for in terms of reflective practice. Their objective was for beginning teachers to not only know how to reflect on their practice in a deep way, but also to know why the practice of reflection can have a great impact on their teaching.

No matter what method is used to develop the ability to engage in a cycle of reflection, as teachers grow their reflective skillset they are "…more able to respond thoughtfully in the moment" (Rodgers, 2002, p. 232). They also gain a sort of momentum as they consistently wonder about their practice—it becomes a habit to engage in the reflective process (Rodgers, 2002). As teachers grow in this practice, the role of their instructional coach remains vital (Hall & Simeral, 2008). The construct of reflection does not have an ending point – there is always room for growth, therefore highly reflective teachers still benefit from a partnership with their coach (Hall & Simeral, 2008).

The ultimate goal of being a reflective teacher is to improve student learning. "As reflective practitioners, it is essential that teachers not only learn to see but that they learn to see through their students' eyes" (Rodgers, 2002, p. 243). This can be an extremely challenging feat,

overwhelming to some. Teaming with an instructional coach for support in this work is invaluable. As a teacher develops the ability to really "see," according to Rodgers (2002),

> …they start to differentiate their teaching from their students' learning. Once they see this distinction they become more sensitive to the fact that good teaching is a response to students' learning rather than the cause of students' learning, becoming more curious about and aware of learning as they do so. (p. 250)

Reflection in Teacher Education Programs

Many programs for pre-service teachers highlight the importance of becoming a reflective practitioner (Carlo, Hinkhouse, & Isbell, 2010; Cornish & Jenkins, 2012; Hagevik, Aydeniz, & Rowell, 2012). Additionally, it is argued that with limited experience to draw from, new teachers should be taught to critically reflect (in the hopes of increasing their ability to problem-solve new situations) (Watts & Lawson, 2008). Being reflective also promotes the connection between recently learned theory in their pre-service programs to experiences they have in the first few years of teaching (Watts & Lawson, 2008). In their meta-analysis study, Watts and Lawson (2008) saw improvement in pre-service teachers' ability to reflect through a structured writing and inquiry process. As Freese (2006) completed an in-depth analysis of one pre-service teacher's year-long efforts to become more reflective, she found that he underwent a powerful mindset shift. He transformed into a teacher who critically analyzed his own practice with a desire to improve and kept his focus on student learning as the measure of his success as a teacher. Freese (2006) utilized various reflection-based tasks when working with the pre-service teacher, a methodology she found beneficial in growing his skillset in this area.

Harford and MacRuairc (2008) conducted a study in which the goal was to provide scaffolded reflective practices for student teachers. Their model included a facilitator who had

the responsibility of asking questions during processing sessions with student teachers during the practicum placements. In modeling curious or inquisitive behavior, the facilitator was demonstrating that wondering is inherent in reflective practice and that sometimes solutions are not immediate or clear (Harford & MacRuairc, 2008). This role of facilitator mirrors the role an instructional coach plays in a school setting. Harford and MacRuairc (2008) found that with repeated sessions with the facilitator who asked guiding, scaffolded, higher level questions, the student teachers were able to engage in deeper, significant reflection with their cohort members. Many of the students noted that this sort of practice (reflecting and processing with other teachers and a facilitator) is uncommon in the school structures with which they are familiar, yet they saw the benefits to this structure as a developing professional (Harford & MacRuairc, 2008). The researchers feared that without "…designated time and support given over to reflective practice…" (Harford & MacRuairc, 2008, p. 1890) the new teachers may revert to traditional methods of teaching and fail to continue the growth in reflective practice.

Reflection in Other Fields

The use of reflective practice is not limited to the field of K-12 education. Health care pre-service programs illustrate the importance of increasing a student's ability to be reflective such that they can provide the best patient care through ongoing analysis and adaptations of their mindsets and actions (Saperstein, Lilje, & Seibert, 2015). The idea of working with a coach to foster reflective practice exists in various professions. Famous surgeon Atul Gawande (2011) adopted this professional practice, which for him includes having his coach in the operating room analyzing his work, having his work videotaped so that he can debrief with his coach later, and discussing hypothetical situations with his coach to prepare for future work. The dialogue with his coach, a retired surgeon, often consists of questions meant to prompt Gawande to reflect

on his practice. This process of encouraging reflection is helping him, an already top-notch surgeon, improve his practice—he sought out a coach when he realized years into his career that his practice had plateaued (Gawande, 2011).

After the initial years of professional practice it is easy to conclude that one no longer needs support, that one is proficient. Proficient is not enough—being a true professional means being willing to continuously improve and refusing to settle for adequate. In his article published in *The New Yorker*, Gawande (2011) argued that just as professional athletes and musicians rely heavily on their personal coach, professionals in other realms, such as medicine and education, should find someone to push them to improve. Professionals who are reflective are constantly working to further their skills – coaches who work with reflective professionals are guides, sounding boards, and partners such that the practice of reflection can be sustained and deepened.

Challenges

The potential folly in attempting to develop reflective teachers is to assume that all educators understand the task—the ability to reflect is not something one can just be told to improve (Loughran, 2002). Also, teachers may consider themselves to be reflective as the alternative is to admit they do not engage in the practice and they wish to avoid the professional stigma. Becoming more reflective requires practice, support, structure, and a clear vision of what improvement requires (Loughran, 2002).

There continues to be a pervasive mindset among many teachers that there just is not enough time to stop and reflect – they are always rushing on to prepare the next lesson, grade the next round of papers, or create the next assessment. The benefits of reflection need to be the focus for why it is worth stopping and taking the time to do so. As Gimbel (2008) explained,

reflecting with others can be a great source of support and encouragement. Not only does reflection help teachers grow personally as a professional improving their craft, when done with another person (coach or peer) or a group (department or grade level counterpart) there can be a fluid sharing of ideas, a development of comradery, and a non-threatening venue in which to ask for help. The benefits of reflection need to be underscored and revisited throughout the implementation process to avoid the feeling that it becomes a hoop-jumping task or something that is checked off a list by a busy teacher.

Attempts to Measure Reflection

There have been many and varied attempts to measure the reflective practice of teachers. In her dissertation, Rayford (2010) used qualitative methods, specifically interviews, in conjunction with a survey to teacher perceptions of reflective practice. Other researchers used case studies to seek to understand the development of reflection, adding to the qualitative methods body of literature (Farrell & Ives, 2015; Freese, 2006; Stover, Kissel, Haag, & Shoniker, 2011). Furthermore, examining writing to assess reflection using a rubric is another methodology seen in this area, as evidenced by Watts and Lawson (2008). In terms of practicality for replication and use in a setting outside of research, particularly if funds are limited, a method of measurement that is quantitative in nature may often prove to be more efficient.

One such quantitative method was used by Kember, Leung, Jones, Loke, McKay, Sinclair, Tse, Webb, Wong, Wong, and Yeung (2000) when they developed and tested a questionnaire for students in the field of medicine to determine the level of their reflection in four categories based on their Likert scale responses to statements. Similarly, Akbart, Behzadpoor, and Davand (2010) developed an inventory of Likert scale rated questions for

English language teachers to determine their level of reflection in six categories. Larrivee (2008) developed a survey in which respondents check "Frequently", "Sometimes", "Infrequently" in regards to their own practice and a facilitator rates them on an identical scale, with the intent of having a debrief after the completion of the surveys to ascertain next steps for reflective practice development. Not all scales utilize ratings, as evidenced by Hall and Simeral (2015) who developed the multiple choice "Reflective Self-Assessment" in which teachers choose the statement that most closely resembles their behavior, after which the responses are scored and used to place teachers in one of four reflective categories.

Some studies are conducted using instruments developed by other academics to study reflection. For example, the work of Kayapinar (2009) in which a Teacher Reflection Scale was developed has been used in further research on teacher reflection (Armutcu & Yaman, 2010; Yaman, 2016). At times surveys from outside the field of education are utilized, such as Carr and Johnson (2013) investigating academic performance in medical students using "The Self-Reflection and Insight Scale" developed by Grant, Franklin, and Langford (2002). The remainder of this paper will explore the implementation of a tool that includes instruments developed by other professionals, in an attempt to measure the impact of an instructional coaching model by assessing teacher reflection.

Chapter III: Methodology

Philosophy and Justification

This study employed a quantitative cross sectional survey design to collect and analyze data. The rationale behind this decision included attempting to utilize a method that could be replicated in an efficient manner, both in terms of cost and time. Understanding that varied perspectives exist among teachers regarding the use of instructional coaches as well as the role of reflective practice, a survey was administered to ensure that voice was given to the various perspectives. Jaeger (2013) noted the need for a method to measure reflective practice among teachers. A well designed survey would answer this call for a measurement instrument.

Research Questions

The following research questions were explored in this study:

1) What difference, if any, exists in teachers' use of reflective practice based on whether or not they work with an instructional coach?
    a. Is there a difference in reflective practice based on coaching frequency?
    b. Is there a difference in reflective practice based on the perceived value of coaching?
2) What relationship, if any, exists between teachers' reflective practice as it relates to teaching and their self-reflective practice as it relates to everyday behaviors?
3) What difference, if any, exists in teachers' level of participation in coaching based on the instructional coaching model?

Theoretical Framework

The research questions for this study illustrate the overall goal to further understand if instructional coaching makes a difference in the reflective practice of teachers. Of the multiple

frameworks for research available, the quantitative survey design was chosen for multiple reasons. Due to the contentious nature of instructional coaching and the personal nature of reflective practice, it is important that input from respondents is collected anonymously. A survey allows participants to preserve their anonymity (Muijs, 2011). Additionally, Mujis (2011) notes that this method is cost and time efficient, an important attribute should the district wish to use the method of measurement in an ongoing way.

A census survey was chosen for this study, meaning all members of the population are being invited to participate (Vogt, 2007). It is important for all middle school teachers in the district to be given a chance to be heard if they chose, validating their perspective, given that the researcher is asking for them to bestow their trust in the process. To obtain quality data in the form of perspectives, participants need to be asked directly and a survey accomplishes this task (Vogt, 2007).

This study aimed to measure reflective practice. Schön (1983) authored several pieces arguing for the necessary use of reflective practice among professionals. The ability to make purposeful decisions in real time is essential for an effective professional, a skill that is possible if one is reflective (Schön, 1983). Rodgers (2002) argued that when a teacher is reflective about their craft, they are able to identify the current reality in their classroom and therefore better meet the needs of their students. For a teacher to grow in their practice, to recognize needed areas of improvement, they must be reflective (Cornish & Jenkins, 2012). Attempts to measure reflective practice have been made in qualitative research using interviews or case studies (Farrell & Ives, 2015; Stover, Kissel, Haag, & Shoniker, 2011; Rayford, 2010; Watts & Lawson, 2008; Freese, 2006). From the quantitative realm, surveys and inventories have been used as well (Yaman, 2016; Armutcu, 2010; Akbart et all, 2010; Larrivee, 2008; Kember et al, 2000). The decision to

employ quantitative methods in this study was grounded in the efficiency of data collection and the nature of the data being collected.

Variables

The independent variables for this study were as follows:

1) Structure of the coaching model
    a. required or optional
    b. importance of choice (focus, time, experiences)
2) Level of participation in coaching (none, minimally, frequently, often)

    For those participating,

    a) Length of time participating in coaching (not applicable, less than one year, one year to three full years, four years or more)
    b) Value of coaching experience (Likert scale, ranges from 1-5)
3) Self-reflection score (from the SRIS scale, ranges from 12-72)

The dependent variable for this study was a teacher's reflection score (from the "Reflection Self-Assessment" scale, ranges from 10-40).

Hypotheses

H_{1o}: There is no difference in teachers' use of reflective practice based on whether or not they work with an instructional coach.

H_{1a}: There is a difference in teachers' use of reflective practice based on whether or not they work with an instructional coach.

H_{1ao}: There is no difference in teachers' use of reflective practice based on how long they have been working with an instructional coach.

H_{1aa}: There is a difference in teachers' use of reflective practice based on how long they have been working with an instructional coach.

H_{1bo}: There is no difference in teachers' use of reflective practice based on their perceived value of coaching.

H_{1ba}: There is a difference in teachers' use of reflective practice based on their perceived value of coaching.

H_{2o}: There is no correlation between teachers' reflective practice as it relates to teaching and their self-reflective practice as it relates to everyday behaviors.

H_{2a}: There is a correlation between teachers' reflective practice as it relates to teaching and their self-reflective practice as it relates to everyday behaviors.

H_{3o}: There is no difference between teachers' level of participation in coaching based on the instructional coaching model.

H_{3a}: There is a difference between teachers' level of participation in coaching based on the instructional coaching model.

Research Design Strategy

The population for this study included teachers at three middle schools, all of which are in the same district, yet each has its own method of implementing the district model of instructional coaching. The survey used included various measurements of reflectiveness, both with the lens of education and otherwise, along with demographic information that is targeted at finding the groups outlined in the research questions. The survey is 31 questions and was

estimated to take 10-15 minutes for teachers to complete in hopes of increasing their response rate. The researcher provided information to the teachers prior to dispensing the survey, including the purpose of the study, the optional nature of their participation, how their anonymity will be ensured, and how the data will be used, in an additional effort to increase the response rate. Also, teachers were provided time within their contract day to complete the survey, further increasing the chance of a high response rate.

Measures

The instrument used in this study was a combination of other instruments (see Appendix E). To measure reflection with the lens of a teacher, "Your reflective self-assessment tool" from Hall and Simeral (2015) was used, which resulted in a "reflection score" representing the dependent variable (see Appendix B). This inventory scores teacher responses to various scenarios and provides an overall score that places teachers in one of four categories on the "Continuum of Self-Reflection": Unaware (10-14), Conscious (15-24), Action (25-34), and Refinement (35-40). Definitions of characteristics displayed and behaviors exhibited at each stage in the continuum along with next steps to develop reflective practice are provided by the authors (Hall & Simeral, 2015; Hall & Simeral, 2008). One way to summarize these categories is through the authors' explanation of a teacher's reflective cycle goals as shown in Table 3.1 (Hall & Simeral, 2008, p. 158). Permission to use this scale was obtained and is included in Appendix C.

Table 3.1

Reflection Cycle Goals

Unaware	Conscious	Action	Refinement
Observe Think intentionally Notice learning Make changes Practice reflection	Note cause/effect relationships Plan with intentionality Recognize the results of your actions Respond to the needs you see Commit to reflecting each day	Zoom in on the details Strategize Consider student thinking as you assess Respond in the moment Develop a pattern of reflection	Bring all the variables together Move beyond strategy to design Assess with a purpose Trust your intuition Cultivate reflective reflection

Additionally, the self-reflection questions from the Self-Reflection and Insight Scale (SRIS) by Grant, Franklin, and Lanford (2002) were included on the instrument for this study (see Appendix A). Respondents received a score from 12-72 as they indicated their response to statements using a six point Likert scale that ranges from strongly disagree to strongly agree. Including these questions was an attempt to counterbalance the tendency for teachers to potentially overrate themselves when considering their reflective practice in the classroom. The SRIS provided an additional, non-teaching self-reflection measurement. Only the 12 "Self-Reflection" questions from that scale were used, omitting the seven "Insight" questions. In the study conducted by Grant, Franklin, and Langford (2002), the SRIS-Self Reflection questions was shown to have a test-retest correlation 0.77 ($p < 0.001$). They also found $\alpha = 0.91$ for the SRIS-Self Reflection scale and their study support the validity of the SRIS. Permission to use this scale was obtained and is included in Appendix D.

Table 3.2 outlines the remaining questions included on the survey.

Table 3.2

Survey Questions

Research Questions	Variables	Survey Questions
RQ 1 What difference, if any, exists in a teacher's use of reflective practice based on whether or not they work with an instructional coach?	IV: Level of participation (none, minimally, often, frequently) DV: Reflection Score (10-40)	IV: How long have you been working with an instructional coach? Note: does not have to be the same coach for the whole time. a) I don't work with an instructional coach b) Less than a year c) One year to three full years d) Four years or more DV: "Your reflective self-assessment tool" (Appendix B)
RQ 1a Is there a difference in reflective practice based on coaching frequency?	IV: Time working with a coach (not applicable, less than one year, one year to three full years, four years or more) DV: Reflection Score (10-40)	IV: How often do you participate in a coaching experience? (descriptive information included in this question – see Appendix E) If you had coaching experiences last more than one day (for example, coach provided feedback by observing your classroom for three days in a row) please count each day as a separate experience. a) I don't work with an instructional coach. b) I've had one or two coaching experiences this year. c) I've had three or four coaching experiences this year. d) I've had more than four coaching experiences this year. DV: "Your reflective self-assessment tool" (Appendix B)

RQ 1b Is there a difference in reflective practice based on the perceived value of coaching?	IV: Valuableness of coaching experience (Likert Scale 1-5) DV: Reflection Score (10-40)	IV: How valuable do you find working with an instructional coach? Likert scale: 1) Not valuable 2) Somewhat valuable 3) Valuable 4) Very Valuable DV: "Your reflective self-assessment tool" (Appendix B)
RQ 2 What relationship, if any, exists between a teacher's reflective practice as it relates to teaching and their self-reflective practice as it relates to everyday behaviors?	IV: Self-Reflection Score (from the SRIS scale, ranges from 12-72) DV: Reflection Score (10-40)	IV: 12 "Self-Reflection" questions from the SRIS scale (Appendix A) DV: "Your reflective self-assessment tool" (Appendix B)
RQ 3 What difference, if any, exists in a teacher's level of participation in coaching based on the instructional coaching model?	IV: Coaching requirement and importance of choice DV: Level of participation (none, minimally, often, frequently)	IV: Do you work at John Glenn Middle School? a) Yes b) No *(Only John Glenn requires that all teachers work with a coach – the other two schools have a model in which coaching is optional. Additionally, information is collected to monitor bias as researcher works at John Glenn)* Consider each statement. How important is the truth of the statement to your participation (or chance of participation) in coaching? (rate not important, somewhat important, important, very important) - I choose what I work on with my coach.

		- I choose how often I work with my coach. - I choose what kind of coaching experience I have (observations, visits to classrooms, curriculum planning, etc.) DV: How often do you participate in a coaching experience? (descriptive information included in this question – see Appendix E) If you had coaching experiences last more than one day (for example, coach provided feedback by observing your classroom for three days in a row) please count each day as a separate experience. a) I don't work with an instructional coach. b) I've had one or two coaching experiences this year. c) I've had three or four coaching experiences this year. d) I've had more than four coaching experiences this year.
		How many years have you been teaching? a) Less than 6 years b) 6 – 15 years c) More than 15 years
		Open-ended question Is there any additional information you would like to provide? For example, points of clarification on your responses or comments about your experience with instructional coaching?

Sampling Design

The population for this study consisted of the teachers at three middle schools in the same district. This was a unique situation as each member of the population being studied is a member of the sampling frame; therefore, this is a census sample. At one of the schools, working with an instructional coach is required; it is optional at the other two buildings. A survey was sent to all teachers in the population, in total 131. Of that total, 84 of the teachers work in a school where instructional coaching is optional, 47 of them have instructional coaching as required in their building. The sample consists of those who respond to the survey.

The schools are in a public school district that is a first-ring suburb of a large city. The schools offer similar programming in core academic content as well as music (Band and Choir), Physical Education, World Language, AVID, Art, Family and Consumer Science, Computer Engineering/Industrial Technology, and Special Education (resource and center-based programs). Teachers have one prep period during the school day. The school that requires teachers to participate in coaching has 2.6 FTE in coaches. One of the other schools has 1.2 FTE in coaching and the third school has 1.0 FTE in coaching.

Of the three schools, one school requires all teachers to work with an instructional coach. The minimum expectation for all teachers is that they participate in a coaching experience at least twice a month or something comparable to that time frame. The experiences are determined by the teacher who also identifies the focus of their work with their coach. Some teachers have their coach observe their class and provide feedback while others visit classrooms with their coach. Some teachers plan lessons with their coach and others have their coach videotape their lesson. At the other two schools, working with a coach is optional. The coaching experiences and areas of focus available at the three schools are likely similar, but may vary due

to available resources and site improvement plans. Post-data collection interviews were conducted by the researcher with building principals using a protocol developed to clarify the current reality of the implementation of instructional coaching in each building.

Data Collection Procedures

Data was collected during a three day window in December. The survey was sent out via email by the researcher to all middle school teachers in the district the morning of the first day of the sampling window. This ensured that all middle school teachers in the district had an opportunity to participate in the study. Throughout the morning on December 5, 2016, a brief presentation was made by the researcher to the teachers during their professional learning day, providing a short overview of the research being conducted and method of data collection. Also included in the presentation were the demographic questions included on the survey so that teachers were assured that anonymity will be preserved.

The presentation was available either in person or via video. At the end of the presentation, participants were given a passcode to open the survey. Teachers were given time during the professional learning day to view the presentation and complete the survey (part of their contract day). To ensure all teachers had access to the presentation whether they attended the learning day meetings or not, the presentation video was linked in the email inviting them to participate in the survey. The passcode was stated at the end of the video.

The survey remained open for three days. A reminder email was sent to teachers one day after the initial email inviting them to participate in the study, stating the passcode in the email. The researcher was available to answer questions either in person, by phone, or by email throughout the data collection period.

Inherent response bias exists as participants were voluntary. In an attempt to boost the response rate, teachers were given dedicated time to complete this survey during the contract day. Additionally, the explanatory presentation was an attempt to increase the response rate, with the goal being to show the safety of participating in the study. Participants also had the option to enter their email into a drawing for a gift card upon completing the survey, as an additional means of increasing the response rate. A layer of security to protect participant anonymity was added to the survey such that the questionnaire section was submitted before participants were directed to a separate survey link that requests their email address for the drawing.

Field Test

The instrument was tested in November among various administrators and instructional coaches in the district of interest. The purpose of this field test was to identify any confusing or erroneous questions, to test the ease of use of the instrument, and to gain an approximate time for completion of the survey. This field test included three participants and after completing the survey participants were asked to provide feedback verbally or in writing to collect the needed information. That feedback informed the changes needed to the instrument and process, including edits needed to the questions to help them display properly on personal devices and what information was included in the presentation. Additionally, some participants were asked to take the survey multiple times to ensure that the system used to collect the data recorded the information correctly.

Pilot Test

Due to the lack of data concerning the reliability and validity of "Your reflection self-assessment tool" (Hall & Simeral, 2015) a pilot test was conducted. As there were 10 questions

on the instrument that make up this untested question group, there were at least 10 participants in this pilot test. The pilot group consisted of teachers in the same school district as the population, teachers who have been exposed to similar vernacular and professional learning in recent history. Due to the study including all district middle school teachers in the population, the pilot group was made up of elementary teachers. Conducting the pilot test in this manner allowed for the instrument to be vetted without polluting the study, as there were possibly small subsets within the population that could have been missed if those belonging to the subsets were coincidently chosen for a pilot test. The pilot test was conducted in November.

Data Analysis

Analysis for Research Question 1:

Analysis for $H_{1:}$

Are the variables of "work with a coach (level of participation)" and "reflection about teaching" related?

- Use ANOVA
- 1 dependent variable = reflection score (interval ranging from 10-40)
- 1 independent variable = participation in coaching (categorical: I don't work with an instructional coach, one or two coaching experiences this year, three or four, more than four)

Analysis for H_{1a}:

Are the variables of "time working with a coach" and "reflection about teaching" related?

- Use ANOVA
- 1 dependent variable = reflection score (interval ranging from 10-40)

- 1 independent variable = time working with a coach (categorical: less than one year, one year to three full years, four years or more)

Analysis for H_{1b}:

Are the variables of "valuableness of coaching experience" and "reflection about teaching" related?

- Use ANOVA
- 1 dependent variable = reflection score (interval ranging from 10-40)
- 1 independent variable = valuable score (ordinal: 1-4)

Analysis for Research Question 2: Are the variables of "self-reflection" and "reflection about teaching" related?

Use Pearson correlation (linear regression)

1 dependent variable = reflection score

1 independent variable = self-reflection score

Analysis for Research Question 3: Are the variables of "required/optional" and "level of participation" related?

Use Mann-Whitney test

1 dependent variable = level of participation (ordinal: none, sometimes, often, frequently)

1 independent variables = required or optional (categorical)

There is a chance that the data collected from the population will not meet the standard assumptions for parametric statistics (due to sample size and lack of normality). Once the data is collected, the researcher will decide whether or non-parametric statistics should be used.

Limitations of Methodology

The selection of participants in this study was not random; the entire population was given the opportunity to participate and they choose whether or not to do so. Additionally, as reflectiveness is a desirable quality, it is important to remember that self-reported data may have this limitation lurking behind it. Attempts to acknowledge and measure this dynamic are mentioned above and are addressed in the results section.

There are possibly some teachers that have been directed by their principal to work with an instructional coach due to poor performance. It is unknown if any teachers exist in this category, and if they do it is a small subset such that asking any clarifying information would have revealed their identity. It is estimated that there are no more than four teachers who fall into this category. Readers are cautioned to keep this in mind as the analysis is discussed given that their data will be included with the teachers who work in a school where participation in coaching is optional.

The use of an instrument that has not been tested beyond anecdotally in the field ("Your reflective self-assessment tool") can bring some limitations to the study. An attempt to address this limitation was made with the inclusion of the tested SRIS along with the pilot test that was conducted in this study. However, it is still a possible limitation that readers need to be aware of when considering the results of this study.

The scope and possible applications of this study may be limited by the population that was examined. Participants were exclusively at the middle level in a single district. The unique microcosm of this population may be comparable to other school districts or groups of schools; however, readers will be cautioned to extrapolate with care.

The experience of the instructional coaches in the three buildings varies, which may be limiting to the study. At the school where coaching is required, one of the coaches has been in the role at that building for four years, the second coach three years, and the third two years. At one of the other middle schools, the part-time coach has been coaching for two years and the fulltime coach started in the role last spring, but both have been at the school for a number of years in the role of teacher. The third middle school has a first year coach, new to the building. These dynamics influence the perception and experience with coaching in each building. While the study aims to examine coaching from a broader perspective, these possible limitations exist.

In an effort to understand the possible impact of the aforementioned limitations, the researcher spoke with the building principals after the data was collected. After identifying trends and questions were raised, the researcher formulated questions and had a discussion with each leader to better understand and interpret the results of the study. This included asking questions regarding staffing, funding choices, staff development, and building culture.

Ethical Considerations

In this study, it is important that teachers were given anonymity so that their responses could be honest and given freely without fear. Data collection procedures were used to ensure anonymity of respondents. Also, remembering that instructional coaching can be a contentious issue that involves people's jobs and job satisfaction, it is important that the data collected stay generalized to the point of protecting the identity of the respondents.

Participants needed to provide informed consent prior to taking the survey and they participated at their own will with the option to cease participating at any time before they completed the survey. The information that was provided prior to distributing the survey highlighted the intent of the study, how the data will be used, and the remaining IRB

requirements to ensure that respect, beneficence, and justice were ensured throughout the research process.

Chapter IV: Results

This study examined multiple facets of an instructional coaching program in a school district, working to understand the impact instructional coaching has on the reflective practice of teachers while attempting to understand points of leverage in a coaching framework. The survey results gathered in the study were coded, disaggregated, and analyzed according to the methodology described in Chapter III. In this chapter, the pilot test analysis is described first, followed by the results of the middle school study. After completing the analysis for the hypotheses of the study, additional tests were conducted to further explore the data. These results are included in this chapter along with the optional open-ended responses provided by respondents.

Pilot Test

The population for the pilot study consisted of 30 teachers at an elementary school. The researcher attended a staff meeting prior to administering the survey to explain the basic premise of the study. All teachers were sent the survey along with a video summary via email. Teachers were given three days to complete the survey, and the principal gave them time during their work day to participate.

There were 27 respondents to the survey within the sampling window. All responses were used to calculate Cronbach's alpha for the ten questions of the survey that lacked reliability data ("Your reflection self-assessment tool"). The value found was $\alpha = 0.68$. As a measure of internal consistency, this value is generally viewed as "acceptable" if it is 0.7 or higher. The value found in this study does not quite reach the acceptable level yet is close enough that the researcher progressed with the study.

Sample

The response rate for the middle school survey was 78.6% with 103 teachers completing the survey. The respondents included 38 teachers from the school where coaching is required and 65 teachers total from the two schools where coaching is optional. The response rate was relatively balanced between the two groups, with 80.9% of teachers from the required-coaching school responding and 77.4% of the teachers from the optional-coaching schools responding. Due to the anonymity of the survey, it is not known what the balance of respondents is between the two optional-coaching schools.

Hypothesis Testing

This section discusses the results of the statistical test conducted for each hypothesis. Interpretation of these results will be presented in Chapter V. A summary of the results can be found in Table 4.1. In Chapter III it was mentioned that upon gathering data a decision would be made as to whether or not parametric assumptions hold with the data set. The researcher found reason to question the assumptions and thus when necessary switched the analysis to non-parametric comparable tests. The parametric statistics are still included below and the results of the hypothesis tests did not change regardless of which test was used.

The first hypothesis looked to answer the following research question: What difference, if any, exists in teachers' use of reflective practice based on whether or not they work with an instructional coach?

H_{1o}: There is no difference in teachers' use of reflective practice based on whether or not they work with an instructional coach.

H_{1a}: There is a difference in teachers' use of reflective practice based on whether or not they work with an instructional coach.

The variables used to test this hypothesis were a respondent's reflection score and their level of participation in coaching. There were four levels of participation (I don't work with an instructional coach, I've had one or two coaching experiences this year, I've had three or four coaching experiences this year, I've had more than four coaching experiences this year). Using the Kruskal-Wallis test (p-value = 0.71360) and ANOVA (p-value = 0.65574), there was failure to reject the null hypothesis. There was not enough evidence to say that there is a difference in teachers' use of reflective practice based on whether or not they work with an instructional coach.

The first research question had a sub-question: Is there a difference in reflective practice based on coaching frequency?

H_{1ao}: There is no difference in teachers' use of reflective practice based on how long they have been working with an instructional coach.

H_{1aa}: There is a difference in teachers' use of reflective practice based on how long they have been working with an instructional coach.

The variables used to test this hypothesis were a respondent's reflection score and the length of time they have been working with a coach. There were four levels of time (I don't work with a coach, less than a year, one to three full years, four years or more). Using the Kruskal-Wallis test (p-value = 0.48384) and ANOVA (p-value = 0.42839), there was failure to reject the null hypothesis. There was not enough evidence to say that there is a difference in teachers' use of reflective practice based on how long they have been working with an instructional coach.

The first research question had a second sub-question: Is there a difference in reflective practice based on the perceived value of coaching?

H_{1bo}: There is no difference in teachers' use of reflective practice based on their perceived value of coaching.

H_{1ba}: There is a difference in teachers' use of reflective practice based on their perceived value of coaching.

The variables used to test this hypothesis were a respondent's reflection score and his or her perceived value of coaching. There were four levels of valuableness (not valuable, somewhat valuable, valuable, very valuable). Using the Kruskal-Wallis test (p-value = 0.57506) and ANOVA (p-value = 0.65830), there was failure to reject the null hypothesis. There was not enough evidence to say that there is a difference in teachers' use of reflective practice based on their perceived value of coaching.

The second research question was as follows: What relationship, if any, exists between teachers' reflective practice as it relates to teaching and their self-reflective practice as it relates to everyday behaviors?

H_{2o}: There is no correlation between teachers' reflective practice as it relates to teaching and their self-reflective practice as it relates to everyday behaviors.

H_{2a}: There is a correlation between teachers' reflective practice as it relates to teaching and their self-reflective practice as it relates to everyday behaviors.

The variables for this hypothesis were a respondent's reflection score and his or her self-reflection score. Using linear regression, a Pearson correlation coefficient was found to be r = 0.36531. This means there is a moderate to weak positive correlation between these two variables. The null hypothesis was rejected. There was some evidence that the two scores are positively correlated.

The following was the final research question posed: What difference, if any, exists in teachers' level of participation in coaching based on the instructional coaching model?

H_{3o}: There is no difference between teachers' level of participation in coaching based on the instructional coaching model.

H_{3a}: There is a difference between teachers' level of participation in coaching based on the instructional coaching model.

The variables for this hypothesis were the coaching model (required or optional) and level of participation (four levels). The Mann-Whitney test was used (p-value = 0. 00009) and the null hypothesis was rejected. The χ^2 test was also used (p-value = 0.00012) as readers may justify the dependent variable had categorical outputs, and the null hypothesis was rejected. There was enough evidence to say that there is a difference between teachers' level of participation in coaching based on the coaching model, the difference being if it is required, they participate more.

Table 4.1

Middle School Study Results

Hypothesis (null)	Statistical Test	Result of Test
H_{1o}: There is no difference in teachers' use of reflective practice based on whether or not they work with an instructional coach.	Kruskal-Wallis	p-value = 0.71360 sample medians = 31.5, 32, 30, 31.5 sample count = 18, 50, 15, 20 degrees of freedom = 3 **Failed to reject the null**
	ANOVA	p-value = 0.65574 **Failed to reject the null**
H_{1ao}: There is no difference in teachers' use of reflective practice based on how long they have been working with an	Kruskal-Wallis	p-value = 0.48384 sample medians = 31, 31.5, 31, 32 sample count = 19, 18, 52, 14

instructional coach.		degrees of freedom = 3 **Failed to reject the null**
	ANOVA	p-value = 0.42839 **Failed to reject the null**
H_{1bo}: There is no difference in teachers' use of reflective practice based on the teacher's perceived value of coaching.	Kruskal-Wallis	p-value = 0.57506 sample medians = 29.5, 32, 31, 32 sample count = 22, 41, 24, 16 degrees of freedom = 3 **Failed to reject the null**
	ANOVA	p-value = 0.65830 **Failed to reject the null**
H_{2o}: There is no correlation between teachers' reflective practice as it relates to teaching and their self-reflective practice as it relates to everyday behaviors.	Pearson Correlation	r = 0.36531 Moderate to weak positive correlation
H_{3o}: There is no difference between teachers' level of participation in coaching based on the instructional coaching model.	Mann-Whitney Test	p-value = 0.00009 (two-tailed) **Reject the null**
	χ^2	p-value = 0.00012 χ^2 = 20.73372 degrees of freedom = 3 **Reject the null**

Additional Hypothesis Testing

After completing the analysis of the data specific to the identified Research Questions, the researcher identified new questions that could be answered by completing additional analysis with the collected data. The following questions were posed with accompanying hypotheses:

4) What difference, if any, exists in teachers' perceived value of coaching based on the instructional coaching model?

   H_{4o}: There is no difference between teachers' perceived value of coaching based on the instructional coaching model.

   H_{4a}: There is a difference between teachers' perceived value of coaching based on the instructional coaching model.

5) What difference, if any, exists in teachers' perceived value of coaching based on the number of years they have been teaching?

   H_{5o}: There is no difference between teachers' perceived value of coaching based on the number of years they have been teaching.

   H_{5a}: There is a difference between teachers' perceived value of coaching based on the number of years they have been teaching.

6) What difference, if any, exists in teachers' level of participation in coaching based on teachers being able to choose what kind of coaching experience they have?

   H_{6o}: There is no difference between teachers' level of participation in coaching based on teachers being able to choose what kind of coaching experience they have.

   H_{6a}: There is a difference between teachers' level of participation in coaching based on teachers being able to choose what kind of coaching experience they have.

7) What difference, if any, exists in teachers' level of participation in coaching based on teachers being able to choose how often they work with a coach?

   H_{7o}: There is no difference between teachers' level of participation in coaching based on teachers being able to choose how often they work with their coach.

H_{7a}: There is a difference between teachers' level of participation in coaching based on teachers being able to choose what kind of coaching experience they have.

8) What difference, if any, exists in teachers' level of participation in coaching based on teachers being able to choose what they work on with their coach?

   H_{8o}: There is no difference between teachers' level of participation in coaching based on teachers being able to choose what they work on with their coach.

   H_{8a}: There is a difference between teachers' level of participation in coaching based on teachers being able to choose what they work on with their coach.

A summary of the results for the additional hypotheses are listed in Table 4.2. To follow suit with the above section, parametric statistics were also included when applicable, though the results of the hypothesis testing remained the same.

The variables examined for H_4 were the coaching model used at a respondent's school (required or optional) and the value the respondent placed on coaching (not valuable, somewhat valuable, valuable, very valuable). The Mann-Whitney test was used and the calculated p-value was 0.00047. A t-test was also used (p-value = 0.00052). In both cases, the null hypothesis was rejected, and there was evidence to say that teachers who experience the required model of instructional coaching find coaching more valuable than those at the schools where coaching is optional.

The variables examined for H_5 were the number of years a respondent has been teaching (three levels) and the value the respondent placed on coaching (four levels). The Kruskal-Wallis test was used and a p-value of 0.03560 was found. An ANOVA test was also conducted (p-value = 0.02698). The null hypothesis was rejected in both tests, and there was evidence to say that

teachers who have been teaching for a shorter amount of time find more value in instructional coaching.

The variables examined for H_6, H_7, and H_8 were a respondent's level of participation in coaching (four levels) and the importance of choice on what they work on with their coach, how often they work with their coach, and the kind of experience they have with their coach (four levels). A χ^2 test was used for each hypothesis, and none of the p-values were significant (0.32431, 0.62979, and 0.24873 respectively). There was failure to reject the null for all three hypothesis sets. Not enough evidence existed to show there is a difference in teachers' participation in coaching based on the importance of any one of these three factors.

Table 4.2

Additional Middle School Study Tests

Hypothesis (null)	Statistical Test	Result of Test
H_{4o}: There is no difference between teachers' perceived value of coaching based on the instructional coaching model.	Mann-Whitney	p-value = 0.00047 "required" mean = 2.78947, n = 38 "optional" mean = 2.06154, n = 65 z-score = 3.49759 **Reject the null**
	t-test	p-value = 0.00052 (two-tailed) **Reject the null**
H_{5o}: There is no difference between teachers' perceived value of coaching based on the number of years they have been teaching.	Kruskal-Wallis	p-value = 0.03560 Less than 6 years mean = 2.69231, median = 3, n = 26 6 to 15 years mean = 2.41936, median = 2, n = 31 More than 15 years mean = 2.06526, median = 2, n = 46 degrees of freedom = 2

		Reject the null
	ANOVA	p-value = 0.02698 **Reject the null**
H_{6o}: There is no difference between teachers' level of participation in coaching based on teachers being able to choose what kind of coaching experience they have.	χ^2	p-value = 0.32431 χ^2 = 10.33293 degrees of freedom = 9 **Failed to reject the null**
H_{7o}: There is no difference between teachers' level of participation in coaching based on teachers being able to choose how often they work with their coach.	χ^2	p-value = 0.62979 χ^2 = 7.070386 degrees of freedom = 9 **Failed to reject the null**
H_{8o}: There is no difference between teachers' level of participation in coaching based on teachers being able to choose what they work on with their coach.	χ^2	p-value = 0.24873 χ^2 = 11.40873 degrees of freedom = 9 **Failed to reject the null**

Open-Ended Responses

At the end of the survey, respondents were invited to answer an open-ended question to provide any additional information. It was not a required question and of 103 respondents only 25 submitted a response that included information about coaching. The responses were a mix of

positive, neutral, and negative views. Below is a summary of the ideas from the open-ended responses.

Some respondents voiced that instructional coaches are doing the work administrators used to do in their building in the area of instructional leadership. A couple of respondents questioned the amount of money spent on instructional coaching and voiced concern at the expensive practice. Still others bemoaned the fact that their coach is not an expert in their content area; therefore, they do not value coaching.

Two respondents referenced professional networks outside of their building that provide them the support they would expect from a coach, thus they choose not to participate in the practice. A few respondents who expressed dissatisfaction with instructional coaching explained that the coach in their building seemed to be doing significant office support or behavioral support during their day. One respondent stated that having only one coach at their building made it difficult for the coach to have an impact schoolwide.

Several respondents named the support they receive from their coach as valuable, impacting their professional practice in a positive way. Various respondents also identified that coaches provide someone to process with, someone to provide ideas, and someone to help them reflect. Multiple respondents appreciated the flexibility and choice provided throughout their coaching experiences.

Chapter V: Discussion, Implications, Recommendations

Overview of the Study

This study sought to examine the reflective practice of teachers and what, if any, relationship there is to their participation in instructional coaching. A survey was used to collect the data for this research and was administered to middle school teachers in a Midwest public school district. A census was performed, providing each teacher at the three middle schools a chance to respond to the survey. During the three day sampling window, 78% of population completed the survey.

The data was analyzed and the hypotheses for the study were tested. Upon completing the initial analysis, further questions arose based on the data that was collected. The researcher added five research questions and accompanying hypotheses then completed further analysis. All results were outlined in Chapter IV. A complete discussion of all results along with implications and recommendations based on the analysis are found in this chapter.

Research Questions

The following research questions were explored in this study:

1) What difference, if any, exists in teachers' use of reflective practice based on whether or not they work with an instructional coach?
    a. Is there a difference in reflective practice based on coaching frequency?
    b. Is there a difference in reflective practice based on the perceived value of coaching?
2) What relationship, if any, exists between teachers' reflective practice as it relates to teaching and their self-reflective practice as it relates to everyday behaviors?

3) What difference, if any, exists in teachers' level of participation in coaching based on the instructional coaching model?
4) What difference, if any, exists in teachers' perceived value of coaching based on the instructional coaching model?
5) What difference, if any, exists in teachers' perceived value of coaching based on the number of years they have been teaching?
6) What difference, if any, exists in teachers' level of participation in coaching based on teachers being able to choose what kind of coaching experience they have?
7) What difference, if any, exists in teachers' level of participation in coaching based on teachers being able to choose how often they work with their coach?
8) What difference, if any, exists in teachers' level of participation in coaching based on teachers being able to choose what they work on with their coach?

Conclusions

The first research question and its sub-questions were posed to understand if there was a difference in coaching participation, frequency, and perceived value of coaching based on a teacher's reflective practice, as measured by the "reflection score" derived from "Your reflective self-assessment tool" by Hall and Simeral (2015). For all three questions, the statistical testing showed that there was not enough evidence to suggest that reflective practice makes a significant difference in coaching participation, frequency, or the perceived value of coaching. A construct validity question was raised when examining the "reflection score" results. Almost every teacher answered the questionnaire in a way that placed them in the top two categories for reflection, Action and Refinement (Hall & Simeral, 2015). This calls into question the manner in which the respondents answered the questions—perhaps they were choosing the perceived "right" answer

instead of their "true" answer given that reflectiveness is a desirable quality. With this in mind, the recommended conclusion is that while there are perhaps other factors more significant in influencing a teacher's participation in coaching, the frequency of that participation, and their perceived value of coaching, further examination of how to measure reflective practice is needed before ruling out its connection to working with an instructional coach.

Research question two was developed to serve as a check for the "reflection score" measurement, in the hopes of avoiding a possible construct validity issue. The measure for the "reflection score" using the tool developed by Hall and Simeral (2015) does not include validity and reliability data in peer-reviewed literature. In an attempt to balance this reality, the SRIS tool was used in conjunction to see if the two scores demonstrated a positive correlation. The hypothesis was tested and there was a moderate to weak positive correlation found between the two scores, meaning that while a correlation exists, it does not hold strong predictive value. The conclusion drawn is that the "reflection score" yields a value that can serve as a general measure to provide an overall sense of the reflective practice of an educator, but should not be the sole measure of reflective practice.

The population studied was made up of three schools. One of the schools required their teachers to work with an instructional coach while the other two made it optional to work with a coach. Research question three asked whether there was a difference in participation in coaching as a result of this, considering that perhaps teachers at the required-coaching building may have refused the mandate or teachers at the optional-coaching schools participated in coaching more because it was of their own free will. The analysis showed there is a significant difference in participation in the two models, with teachers at the required-coaching school participating in coaching more than those at the optional-coaching schools. It is unknown if the higher rate of

participation is due to the optional-coaching schools only having one instructional coach which could hinder participation due to limited availability of the coach. Additional investigation is needed to determine why the optional-coaching schools had lower participation. Furthermore, study could be done at the required-coaching school to ascertain whether or not participation would decrease if it were not required.

After considering the question of if there is a difference in participation with the teachers who are required to be coached, it was natural to explore if they had a difference in the perceived value of coaching compared to their counterparts in the optional-coaching schools. Data analysis showed that there was a significant difference in perceived value between the two groups, with the teachers at the school where coaching is required finding coaching to be more valuable. This conclusion does not explain the details of why the required aspect makes coaching more valuable, nor does it show that it is in fact the requirement as opposed to a variety of other factors such as building culture, building leadership, and coaching experiences. However, it does show merit in exploring this idea further as the difference in perceived value between the two groups was significant.

One factor of consideration when exploring the value of coaching is the number of years a teacher has been in the profession. The data collected in the survey allowed for exploration of this idea—thus, research question five was developed. The hypothesis testing showed a significant difference between the three demographic age groups (less than six years, six to 15 years, more than 15 years) with the perceived value of coaching decreasing as the years of experience increased. Various reasons as to why this occurred include that more inexperienced teachers are more open-minded to the idea of coaching, they might be more comfortable having

people in their classroom due to recently completing a teacher preparation program, or they might be more willing to change as their practices are newly developed.

While examining who was participating in coaching, the researcher attempted to identify what is most important to teachers about the coaching experience as they consider being a participant. The survey asked a question in which teachers evaluated three statements as not important, somewhat important, important, or very important—what type of coaching experience, how often the experiences occurred, and what they work on with their coach. For each respondent, all three of these statements were almost always ranked important or very important, so the hypothesis testing did not show a significant difference between importance and participation in coaching. The takeaway from this analysis is that all three of these ideas are important to teachers who are considering participating in coaching. It is still worthwhile to investigate what is the most important of all three, or identify something else that is more important when trying to create willingness for participation.

There are potential internal validity issues within this study. First, the selection of the participants was not random—a single district was chosen to be studied and the entire population of middle school teachers was provided the opportunity to participate in the survey. Participants self-selected and there may be subset of the population that chose not to respond to the survey. This could lead to a misrepresentative data set. In the same way, the sampling method used could potentially be an external validity issue, as only middle school teachers who have had coaching available for five years were examined. Readers should keep these potential validity issues in mind as they look to apply findings to other situations.

A second potential issue of internal validity is that as a correlational study, determining cause and effect cannot be done. This study is only able to find possible correlations between

variables. Correlation does not mean causation. It is possible that there are variables at play that were not identified or studied, and those variables could be the reason why the correlation exists.

There are possible confounding variables present in this study. The three schools studied all have a different history with their instructional coaches. At the required-coaching building, one of the coaches has been in the role for five years, whereas at the other two buildings the coach is in their first year. The relational aspect of coaching cannot be overlooked and perhaps this played a role in the results of the survey. Another possible confounding issue could be response issues—given that 22% of teachers did not respond, there is a chance that an important subgroup is missing from the data set. Perhaps the inclusion of their data would have made a difference in the analysis. These are possibilities that the reader should consider when interpreting the results.

Implications

The conclusions have practical implications for the district under examination and could be of value to other schools. First, in refining a district-wide coaching plan, further examination is needed of the required-coaching school. To support continued growth and deeper implementation of instructional coaching at the secondary level, both in that school and at others, there is a need to understand the nuances of coaching at that school such that they can be sustained and promoted elsewhere. Additionally, the district is encouraged to explore more in-depth why the less experienced teachers are valuing coaching more. Perhaps it is due to mindset, maybe due to the priority of coaching time, or possibly due to another unknown factor. Interviewing this group of teachers could lead to valuable information for the systemic coaching plan.

A critical implication of this study for the district is that a sound, meaningful method of measuring and monitoring reflective practice among teachers was not identified in the tool used for this data collection. The ease of use and efficiency of both time and money made self-reported survey data attractive from a systems-level. However, the complexities of reflective practice seemed to be lost in the attempted use of this tool. Perhaps paired with observations, interviews, or additional questions the tool may have led to more differentiated results, but instead the data around reflection was not significant or particularly useful from a systems perspective. Using a rubric or continuum such as that provided by Hall and Simeral (2008) could be employed by an administrator and/or coach to measure and monitor teacher growth in reflective practice. Effectively doing this would likely require inter-rater reliability work to ensure consistency. This could be the logical next step for the district in their efforts.

Upon completing the analysis, the researcher spoke with each principal from the schools in the population. For the most part, the principals were not surprised by the results. The principal from the required-coaching school was pleased to see the difference in valuableness rankings, noting that overall the data shows that the school coaching plan is impacting change within the timeframe the principal expected and affirms the next steps planned for the building. One principal from an optional-coaching school expected to see more participation and higher valuableness rankings; however, the dynamics of combining two schools within that classification made specific building results challenging. Both principals at the optional-school wondered about the impact of their first year coaches on the data from their buildings. There was general agreement among the principals that reflective practice seems difficult to measure from self-reported data yet they would find value in being able to measure reflectiveness quickly and accurately.

Recommendations for Practitioners

The data collected in this study shows a need for either additional measures of reflective practice among teachers or a refined method of measuring the practice to gain a more complete understanding of the teacher's use of reflection. Some studies indicate that teaching or at least showing a measurement instrument prior to assessing reflective practice could increase a teacher's growth in the area (Hagevik, Aydeniz, Rowell, 2012; Watts & Lawson, 2008); for example, using a rubric that details various characteristics at different reflective levels such that a teacher could strive to improve in a specific area. The instrument used in this study was not shown to teachers prior to administration. It is recommended that practitioners consider doing so before using it themselves as perhaps this would lead to more differentiated results.

Another recommendation for those in the field of education is to identify professional development needed for teachers, instructional coaches, and administrators so that how to measure reflective practice is mutually agreed upon. This may be as simple as a common rubric used outlining the various dimensions and applications of reflection or as in-depth as fostering inter-rater reliability between coaches and administrators as they work to measure individual teachers' reflective practice through observation and interview.

Recommendations for Academics

Ascertaining a method of measuring the impact instructional coaching has on teacher practice without using self-reported data from teachers as the primary measurement is absent from the field (Dillard, 2015). There is a need for further exploration into a means of additional measurement, perhaps using the coach and administrator rubric by Hall and Simeral (2008) to monitor a teacher's development of reflective practice. Potentially, teacher interviews or focus groups need to be added to effectively measure teacher practice. Primary considerations as

further research is conducted are efficiency of the measurement (both time and cost), simplicity (ease of use), and longevity (progress-monitoring capability).

Concluding Comments

Measuring the impact of instructional coaching is challenging yet necessary (Dillard, 2015; Garcia, Holland, & Mundy, 2013). Identifying the points of leverage that make a coaching model highly effective is likewise difficult but imperative. This study aimed to measure the impact of coaching through teacher reflective practice, given that reflectiveness links to classroom effectiveness (Hall & Simeral, 2008). Additionally, an examination of the characteristics of a coaching program in a school district was conducted in this study to identify essential elements of effectiveness within the structure. The need still exists to find a method of measuring reflection that is efficient and useful for progress-monitoring. Further research is required to investigate the why behind the suspected critical aspects of effective instructional coaching models. The endeavor to understand and improve the implementation of instructional coaching endures, in the pursuit of nurturing reflective practice among teachers and improving student learning.

References

Akbari, R., Behzadpoor, F., & Dadvand, B. (2010). Development of English language teaching reflection inventory. *System, 38*(2), 211-227. doi: 10.1016/j.system.2010.03.003.

Armutcu, N., & Yaman, S. (2010). ELT pre-service teachers' teacher reflection through practicum. *Procedia – Social and Behavioral Sciences, 3*, 28-35. doi: 10.1016/j.sbspro.2010.07.009

Barkley, S. (2015). Principal/instructional coach partnership. Retrieved from: http://barkleypd.com/blog/principalinstructional-coach-partnership/

Camburn, E. M., & Han, S.W. (2015). Infrastructure for teacher reflection and instructional change: An exploratory study. *Journal of Educational Change, 16*(4), 511-533. doi: 10.1007/s10833-015-9252-6

Carlo, D. D., Hinkhouse, H., & Isbell, L. (2010). Developing a reflective practitioner through the connection between educational research and reflective practices. *Journal of Science Education and Technology, 19*(1), 58-68. doi:10.1007/s10956-009-9178-y

Carr, S. E., & Johnson, P. H. (2013). Does self reflection and insight correlate to academic performance in medical students? *BMC Medical Education, 13*(113), doi: 10.1186/1472-6920-13-113

Cornish, L., & Jenkins, K. A. (2012). Encouraging teacher development through embedding reflective practice in assessment. *Asia-Pacific Journal of Teacher Education, 40*(2), 159-170. doi 10.1080/1359866X.2012.669825

Costa, A. L., & Garmston, R. J. (2016). *Cognitive coaching*. (3rd ed.). Lanham, MD: Rowman & Littlefield.

Danielson, L. M. (2009). Fostering reflection. *Educational Leadership, 66*(5). Retrieved from

http://www.ascd.org/publications/educational-leadership/feb09/vol66/num05/Fostering-Reflection.aspx

De Leon, L., & Pena, C. (2011). The use of digital video to foster reflective practice in teacher education. *International Journal of Instructional Media*, *38*(2), 125+. Retrieved from http://go.galegroup.com.ezproxy.bethel.edu/ps/i.do?id=GALE%7CA273786663&v=2.1&u=clic_bethel&it=r&p=PROF&sw=w&asid=af41ba6f6c6e76a7f4964fb8f21e9f19

Denton, C. A., & Hasbrouck, J. (2009). A description of instructional coaching and its relationship to consultation. *Journal of Educational & Psychological Consultation, 19(2),* 150-175.

Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process.* Rev. ed., Boston, MA: Heath and Co.

Dillard, J. D. (2015). *The self-reported impact of instructional coaching on middle school teachers' practices in an urban Georgia school district* (Unpublished doctoral dissertation). Georgia State University, Atlanta. Retrieved from http://scholarworks.gsu.edu/eps_diss/129

Etscheidt, S., Curran, C. M., & Sawyer, C. M. (2012). Promoting reflection in teacher preparation programs: A multilevel model. *Teacher Education and Special Education, 35*(1), 7-26. doi: 10.1177/0888406411420887

Farrell, T. S. C., & Ives, J. (2015). Exploring teacher beliefs and classroom practices through reflective practice: A case study. *Language Teaching Research, 19*(5), 594-610. doi: 10.1177/1362|688|454|722

Freese, A. R. (2006). Reframing one's teaching: Discovering our teacher selves through reflection and inquiry. *Teaching and Teacher Education, 22*, 100-119.

doi: 10.1016/j.tate.2005.07.003

Fullan, M., & Knight, J. (2011). Coaches as system leaders. *Educational Leadership, 69(2),* 50-53.

Garcia, S. G., Jones, D., Holland, G., & Mundy, M. (2013). Instructional coaching at selected middle schools in south Texas and effects on student achievement. *Journal of Instructional Pedagogies, 11*, 1-16. Retrieved from http://search.proquest.com/docview/1440862435?accountid=8593

Gawande, A. (2011). Personal best. *The New Yorker.* Retrieved from http://www.newyorker.com/magazine/2011/10/03/personal-best

Gimbel, P. (2008). Helping new teachers reflect. *Principal Leadership, 8*(5), 6-8. Retrieved from http://search.proquest.com/docview/234998416?accountid=8593

Gningue, S. M., Schroder, B., & Peach, R. (2014). Reshaping the "glass slipper": The development of reflective practice by mathematics teachers through action research. *American Secondary Education, 42*(3), 18-29. Retrieved from http://search.proquest.com/docview/1560529048?accountid=8593

Grant, A. M., Franklin, J., & Langford, P. (2002). The self-reflection and insight scale: A new measure of private self-consciousness. *Social Behavior and Personality, 30*(8), 821. Retrieved from http://search.proquest.com/docview/209832046?accountid=8593

Hagevik, R., Avdeniz, M., & Rowell, C. G. (2012). Using action research in middle level teacher education to evaluate and deepen reflective practice. *Teaching and Teacher Education, 28*(5), 1884-1892. doi:10.1016/j.tate.2012.02.006

Hall, P., & Simeral, A. (2008). *Building teachers' capacity for success: A collaborative approach for coaches and school leaders.* Alexandria, VA: ASCD.

Hall, P., & Simeral, A. (2015). *Teach reflect learn.* Alexandria, VA: ASCD.

Hargreaves, J. (2004). So how do you feel about that? Assessing reflective practice. *Nurse Education Yoday, 24,* 196-201. doi: 10.1016/j.nedt.2003.11.008

Harford, J., & MacRuairc, G. (2008). Engaging student teachers in meaningful reflective practice. *Teaching and Teacher Education, 24*, 1884-1892. doi: 10.1016/j.tate.2008.02.010

Hays, R., & Gay, S. (2011). Reflection or 'pre-reflection': What are we actually measuring in reflective practice? *Medical Education, 45*(2), 116-118. doi: 10.1111/j.1365-2923.2010.03813.x

Jaeger, E. L. (2013). Teacher reflection: Supports, barriers, and results. *Issues in Teacher Education, 22*(1), 89-104. Retrieved from http://search.proquest.com/docview/1500822545?accountid=8593

Kalk, K., Luik, P., Taimalu, M., & That, K. (2014). Validity and reliability of two instruments to measure reflection: A confirmatory study. *Trames, 18*(2), 121-134. doi: 10.3176/tr.2014.2.02

Kayapinar, U., & Erkus, A. (2009). Measuring teacher reflection: Development of TRS. *Eurasian Journal of Educational Research, 37*, 144-158.

Kember, D., Leung, D. R. P., Jones, A., Loke, A. Y., McKay, J., Sinclair, K., Tse, H., Webb, C., Wong, F. K.Y., Wong, M., & Yeung, E. (2000). Development of a questionnaire to measure the level of reflective thinking. *Assessment & Evaluation in Higher Education, 25*(4), 381-395. doi: 10.1080/713611442

Knight, D. S. (2012). Assessing the cost of instructional coaching. *Journal of Education Finance, 38(1)*, 52-80.

Knight, J. (2007). Five key points to building a coaching program. *Journal of Staff Development, 28(1),* 26-31.

Knight, J. (2007). *Instructional coaching: A partnership approach to improving instruction.* Thousand Oaks, CA: Corwin Press.

Knight, J. (2009). Coaching: The key to translating research into practice lies in continuous, job-embedded learning with ongoing support. *Journal of Staff Development, 30(1),* 18-20.

Knight, J. (2011). What good coaches do. *Educational Leadership, 69(2),* 18-22.

Knight, J. (2013). *High impact instruction: A framework for great teaching*. Thousand Oaks, CA: Corwin Press.

Knight, J., Bradley, B. A., Hock, M., Skrtic, T. M., Knight, D., Brasseur-Hock, I. & Hatton, C. (2012). Record, replay, reflect: Videotaped lessons accelerate learning for teachers and coaches. *Journal of Staff Development, 33(2),* 18-23.

Larrivee, B. (2008). Development of a tool to assess teachers' level of reflective practice. *Reflective Practice, 9*(3), 341-360. doi: 10.1080/14623940802207451

Loughran, J. J. (2002). Effective reflective practice: in search of meaning in learning about teaching. *Journal of Teacher Education, 53*(1), 33-44. Retrieved from http://go.galegroup.com.ezproxy.bethel.edu/ps/i.do?p=EAIM&u=clic_bethel&id=GALE|A82005175&v=2.1&it=r&sid=summon&userGroup=clic_bethel&authCount=1

McCullagh, J. F. (2012). How can video supported reflection enhance teachers' professional development? *Cultural Studies of Science Education, 7*(1), 137-152. doi:http://dx.doi.org/10.1007/s11422-012-9396-0

Peterson, D. S., Taylor, B. M., Burnham, B. & Schock, R. (2009). Reflective coaching

conversations: A missing piece. *The Reading Teacher, 62*(6), 500-509. Retrieved from: http://www.jstor.org.ezproxy.bethel.edu/stable/20464456

Rayford, C. R. (2010). *Reflective practice: The teacher in the mirror* (Unpublished doctoral dissertation). University of Nevada, Las Vegas. Retrieved from http://digitalscholarship.unlv.edu/cgi/viewcontent.cgi?article=1018&context=thesesdissertations

Robbins, P. (1991). *How to Plan and Implement a Peer Coaching Program.* Alexandria, VA: ASCD.

Rock, M. L., Zigmong, N. P., Gregg, M., & Gable, R. A. (2011). The power of virtual coaching. *Educational Leadership, 69(2),* 42-48.

Rodgers, C. R. (2002). Voices inside schools. *Harvard Educational Review, 72(*2), 230-253.

Rush, L. S., & Young, S. (2011). Wyoming's instructional facilitator program: Teachers' beliefs about the impact of coaching on practice. *Rural Educator, 32(2),* 13-22.

Saperstein, A. K., Lilje, T., & Seibert, D. (2015). A model for teaching reflective practice. *Military Medicine, 180*(4), 142-146. Retrieved from http://search.proquest.com/docview/1673867129?accountid=8593

Schön, D. A. (1983). *The reflective practitioner*. Basic Books.

Shultz, Kenneth S., & Chávez, David V. (1994). The reliability and factor structure of a social desirability scale in English and in Spanish. *Educational and Psychological Measurement, 54*(4), 935-940. doi: 10.1177/0013164494054004009, © 1994 by SAGE Publications. Reproduced by Permission of SAGE Publications.

Showers, B., & Joyce, B. (1996). The evolution of peer coaching. *Educational leadership,*

53(6), 12-16. Retrieved from http://www.ascd.org/publications/educational-leadership/mar96/vol53/num06/The-Evolution-of-Peer-Coaching.aspx

Smith, A. T. (2012). Middle grades literacy coaching from the coach's perspective. *RMLE Online: Research in Middle Level Education, 35*(5).

Watts, M., & Lawson, M. (2008). Using a meta-analysis activity to make critical reflection explicit in teacher education. *Teaching and Teacher Education, 25*, 609-616. doi: 10.1016/j.tate.2008.11.019

Yaman, S. (2016). A study on reflection as a source of teacher development: Pre-service and experienced teachers. *Academic Journals, 11*(7), 437-448. doi: 10.5897/Err2016.2634

Yopp, D., Burroughs, E. A., Luebeck, J., Heidema, C., Mitchell, A., & Sutton, J. (2011). How to be a wise consumer of coaching: Strategies teachers can use to maximize coaching's benefits. *Journal of Staff Development, 32*(1), 50-53,61. Retrieved from http://search.proquest.com/docview/870749801?accountid=8593

York-Barr, J., Sommers, W. A., Ghere, G.S., & Montie, J. (2006). Reflective practice to improve schools: An action guide for educators. (2nd ed.). Thousand Oaks, CA: Corwin Press.

Zhao, M. (2013). Teachers' professional development from the perspective of teaching reflection levels. *Chinese Education and Society, 45*(5), 56-67. doi: 10.2753/CED1061-1932450404.

Appendix A

Self-reflection and Insight Scale

(Factors, reverse scoring and scoring instructions shown)

Please read the following questions and circle the response that indicates the degree to which you agree or disagree with each of the statements. Try to be accurate, but work quite quickly. Do not spend too much time on any question

THERE ARE NO "WRONG" OR "RIGHT" ANSWERS – ONLY YOUR OWN PERSONAL PERSPECTIVE

BE SURE TO ANSWER EVERY QUESTION ONLY CIRCLE ONE ANSWER FOR EACH QUESTION

1.	**I don't often think about my thoughts (R) (E)**	Disagree Strongly 1	*Disagree* 2	Disagree Slightly 3	Agree Slightly 4	*Agree* 5	Agree Strongly 6
2.	**I am not really interested in analyzing my behaviour (R) (N)**	Disagree Strongly 1	*Disagree* 2	Disagree Slightly 3	Agree Slightly 4	*Agree* 5	Agree Strongly 6
3.	**It is important for me to evaluate the things that I do (N)**	Disagree Strongly 1	*Disagree* 2	Disagree Slightly 3	Agree Slightly 4	*Agree* 5	Agree Strongly 6
4.	**I am very interested in examining what I think about (N)**	Disagree Strongly 1	*Disagree* 2	Disagree Slightly 3	Agree Slightly 4	*Agree* 5	Agree Strongly 6
5.	**I rarely spend time in self-reflection (R) (E)**	Disagree Strongly 1	*Disagree* 2	Disagree Slightly 3	Agree Slightly 4	*Agree* 5	Agree Strongly 6
6.	**I frequently examine my feelings (E)**	Disagree Strongly 1	*Disagree* 2	Disagree Slightly 3	Agree Slightly 4	*Agree* 5	Agree Strongly 6
7.	**It is important to me to try to understand what my feelings mean (N)**	Disagree Strongly 1	*Disagree* 2	Disagree Slightly 3	Agree Slightly 4	*Agree* 5	Agree Strongly 6
8.	**I don't really think about why I behave in the way that I do (R) (E)**	Disagree Strongly 1	*Disagree* 2	Disagree Slightly 3	Agree Slightly 4	*Agree* 5	Agree Strongly 6
		1	2	3	4	5	6

9. I have a definite need to understand the way that my mind works (N)	**Disagree** Strongly	*Disagree*	Disagree Slightly	Agree Slightly	*Agree*	Agree Strongly
	1	*2*	3	4	5	6
10. I frequently take time to reflect on my thoughts (E)	**Disagree** Strongly	*Disagree*	Disagree Slightly	Agree Slightly	*Agree*	Agree Strongly
	1	*2*	3	4	5	6
11. It is important to me to be able to understand how my thoughts arise (N)	**Disagree** Strongly	*Disagree*	Disagree Slightly	Agree Slightly	*Agree*	Agree Strongly
	1	*2*	3	4	5	6
12. I often think about the way I feel about things (E)	**Disagree** Strongly	*Disagree*	Disagree Slightly	Agree Slightly	*Agree*	Agree Strongly
	1	*2*	3	4	5	6

E = Engagement in self-reflection: N = Need for self-reflection: I = Insight: R = Reverse scored

Scoring Instructions

The scoring process is very simple. Summed scores are used. There is no scaling or scale transformation required other than basic reverse scoring for four items.

Step 1.
Reverse score those items marked (R).
An original score of "1" would become "6"; "2" would become "5"; "3" becomes "4" and visa versa.

Step 2.
Sum the scores for each subscale

Engagement in Self-reflection Sub-scale – Items: **1(R)**, **8(R)**, 10, **13(R)**, 16, 19

N = Need for Self-reflection Sub-scale – Items: **2(R),** 5, 7, 12, 15, 18

Grant, A. M., Franklin, J., & Langford, P. (2002). The Self-reflection and Insight Scale: A new measure of private self-consciousness. Social Behavior and Personality, 30, 821-836. – *Permission is freely granted to use this scale for research and therapeutic/coaching purpose.*

Appendix B

Your Reflective Self-Assessment Tool

Your reflective self-assessment tool

Source: Hall/Simeral, *Building Your Capacity for Success* (ASCD, 2015)

Before you get started, it's important to emphasize this advice: Be honest. Choose the statement that resonates with you first. There are no right or wrong answers, nor good or bad scores, only choices that match your patterns of thinking and information that informs your next-steps. You could probably read the scenarios and pretty easily choose the option that indicates stronger reflective tendencies, but if that's not an honest appraisal of your thinking, you'll get erroneous feedback that will send you down the wrong path. This tool is for your use, so again: Be honest.

Read each of the following 10 scenarios, and circle the letter next to the response that is MOST ACCURATE, MOST LIKELY, or MOST OFTEN the approach you would take in that situation. You will likely find that some of the scenarios have more than one option that matches how you operate. In that case, go with your gut – what would you typically do? After the final scenario, you'll record your responses on a scoring-chart and follow the next set of directions to analyze the results.

1. **When planning for today's (or tomorrow's) lesson, MOST OFTEN I…**
    a. Begin with the content and activities that we will be covering, and occasionally prepare specific teaching strategies.
    b. Utilize recent student assessment data to determine what I'm going to teach and how I'm going to teach it.
    c. Spend most of my time deciding which instructional methods I'll use to meet specific needs of my students, relying on unit plans to determine the content.
    d. Consult the teacher's edition and follow the lessons as provided.
2. **When considering the frequency that I reflect on my teaching, MOST OFTEN I…**
    a. Reflect usually after teaching a particular lesson and/or analyzing an assessment.
    b. Reflect after grading student work or when prompted by an administrator, coach, or colleague.
    c. Occasionally reflect on my own, usually after grading assignments or quizzes.
    d. Continuously reflect, including during the lesson itself.
3. **When planning to address student misconceptions, MOST OFTEN I…**
    a. Address them when they occur, because it is difficult to tell where students will struggle.
    b. Follow the plan for the lesson from beginning to end.
    c. Analyze student work to determine what struggles they're having, then plan to address them.
    d. Plan for check-ins through the lesson, so I can provide support as necessary.
4. **When I encounter students that struggle in a lesson, MOST OFTEN I…**
    a. Analyze each student's specific struggles to determine a course of action to address them.
    b. Can't always tell why they struggle, because there are so many variables.
    c. Realize I have little control over how some students perform, so I continue to encourage them.
    d. Look at my teaching strategies to see if changing strategies might have a better effect.

5. **When attempting to re-engage students who are off-task, MOST OFTEN I…**
    a. Stop the lesson, regroup the students, and resume the lesson when I'm ready.
    b. Address the situation with a variety of pre-planned engagement strategies.
    c. Employ a strategy that I am most comfortable with and have used before with success.
    d. Use ideas from the lesson plan I'm following and/or power through in hopes that the students will reengage.
6. **When I ask questions in class, MOST OFTEN I…**
    a. Ask questions that I have prepared in advance.
    b. Ask questions from a collection I have prepared, varying my asking/answering strategies.
    c. Ask questions that come to me while I'm teaching that will continue to move the lesson forward.
    d. Ask the questions as written in the lesson plan.
7. **When describing the students I teach each day, MOST OFTEN I…**
    a. Can identify those who are most/least successful, who struggle with assignments, and who are the first to finish.
    b. Share the students' academic profiles and can cite the latest assessment data.
    c. Focus on personality, behavioral, and overarching descriptive traits.
    d. Can explain the latest assessment data, including anecdotal information, and describe how students are grouped for instruction.
8. **When students are struggling in a lesson, MOST OFTEN I…**
    a. Stick with the lesson plans to make sure we cover the required material.
    b. Attempt to address the learning gaps by modifying the following day's lesson.
    c. Adjust my instructional approaches immediately.
    d. Will go back and re-teach the problems they got wrong.
9. **When determining the level of success of a particular unit, MOST OFTEN I…**
    a. Monitor the progress of individual students through continuous formative and summative assessment strategies.
    b. Monitor class performance on lesson assignments and/or quizzes to see if they are "getting it."
    c. Monitor performance by administering an end-of-unit test, and noting student scores.
    d. Monitor class progress through formative and summative assessment strategies.
10. **When reflecting on the levels of performance my students demonstrated on a recent assessment, MOST OFTEN I…**
    a. Check the grade book to see how the students fared.
    b. Can describe individual students and the specific concepts they have mastered.
    c. Explain with solid details about how groups of students performed.
    d. Provide information about how the class did as a whole.

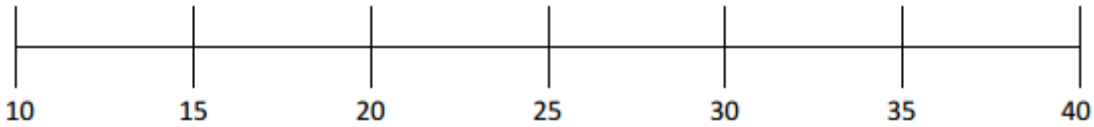
Self-assessment scoring guide

Now that you have completed the self-assessment (honestly and accurately!), it's time to collect some data about your reflective practices. Record your responses in the chart below. Write the score that you received in the far-right column for each question. Total your score and note the stage on the Continuum of Self-Reflection that most likely characterizes your self-reflective tendencies.

Question	A	B	C	D	Your Score
1	2	3	4	1	
2	3	1	2	4	
3	2	1	4	3	
4	4	1	2	3	
5	2	4	3	1	
6	3	4	2	1	
7	2	3	1	4	
8	1	3	4	2	
9	4	2	1	3	
10	1	4	3	2	
TOTAL	**Add the scores in the final column to determine the overall score:**				

The total score (sum of the scores from all 10 questions) gives you an indication of your reflective composite. Plot your score on the Continuum below. See the guide to determine the stage on the Continuum of Self-Reflection that most likely characterizes your self-reflective tendencies:

- 10-14 points: Unaware
- 15-24 points: Conscious
- 25-34 points: Action
- 35-40 points: Refinement



Appendix C

Permission for use of "Your Reflective Self-Assessment Tool"

Re: Reflection Self-Assessment

Pete Hall petehall@educationhall.com via eigbox.net Aug 5

to me

That sounds fantastic. We haven't done any hard data analysis of our scale - in fact, it's quite pedestrian really. It's been field-tested a lot and refined several times. What we've published in TRL is the latest and greatest iteration, so as far as data collection goes - it's all on you right now! :)

We're also in negotiations with ASCD and McREL about getting some formal data collected. If and when that happens, I'd be happy to share it with you for the purposes of your dissertation. Good luck!

Pete!

On 2016-08-05 10:03, Jessica Cabak wrote:

Thank you so much! I am absolutely willing to share my data compilation/analysis along with my dissertation. I am honored to be able to use your scale and reference both of your books often in my dissertation proposal :)

If you have any data (in particular regarding reliability, validity, or norms for the scale) that you would be willing to share, it could be useful in my methodology section of my dissertation. Any little bit helps - I understand if this is not possible, but just thought I'd ask.

Thanks again! My hope is to collect data this winter and defend my dissertation in April. I'll keep you posted!

Take care,

Jessica

On Fri, Aug 5, 2016 at 11:18 AM, Pete Hall <petehall@educationhall.com> wrote:

Jessica,

Thank you for the inquiry. Sounds like a great project! We would be amenable to this if you can agree to two conditions:

1. You share your data with us after you collect/compile it so we can see how your data collection plays out - and compare it with some of the data we've collected over the years.

2. You share your dissertation with us when you complete it so we can congratulate you on your hard work and see how you perceive the connection between our work and your big ideas. :)

Sound good to you? Sounds good to us.

Pete!

On 2016-08-04 05:57, Jessica Cabak wrote:

Hello!

My name is Jessica Cabak and I am a doctoral student at Bethel University in Minnesota. My research involves examining the impact of using an instructional coaching model of professional development to grow reflective practice in teachers.

After an extensive literature review, I think your Reflective Self-Assessment Tool is one of the best scales developed to measure the reflective level of teachers. Your books "Building Teacher's Capacity for Success" and "Teach Reflect Learn" are excellent additions to the academics of the field.

I am very interested in using your scale as part of my instrument of measure in my dissertation - could I have your permission?

Please let me know if you have any questions. Thank you for your consideration!

Jessica Cabak

cabjes@bethel.edu

Appendix D

Permission for use of "Self-Reflection and Insight Scale"

Re: Self-Reflection and Insight Scale

On Thu, Jul 28, 2016 at 12:21 AM, Anthony Grant <anthony.grant@sydney.edu.au> wrote:

Dear Jessica

Good to hear from you. Please do feel free to use the SRIS. I am attaching some papers that I hope will be of help

Tony Grant

ANTHONY M GRANT PhD | Associate Professor

Director: Coaching Psychology Unit | School of Psychology

THE UNIVERSITY OF SYDNEY

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E anthony.grant@sydney.edu.au | **W** www.psych.usyd.edu.au/coach

CRICOS 000268

From: Jessica Cabak [mailto:jessica-cabak@bethel.edu]

Sent: Tuesday, 26 July 2016 1:33 AM

To: Anthony Grant

Subject: Self-Reflection and Insight Scale

Hello Dr. Grant,

My name is Jessica Cabak and I am a doctoral student at Bethel University in Minnesota. I am studying the relationship between a teacher'sreflective practice and their work with an instructional coach.

I am very interested in your SRIS, in particular I would love to be able to include the Self-Reflection questions as part of my study's survey. I would also be including some impression management questions along with questions that investigate reflection specific to the practice of teaching.

Could I please use your SRIS in my study?

Thank you for your consideration - let me know if you have any questions.

Jessica Cabak

Appendix E

Informed Consent Statements and Survey

Reflection and Coaching Survey – Informed Consent for Pilot Study

You are invited to participate in a study of instructional coaching and reflective practice. The hope is to learn how instructional coaching relates to the reflective practice of teachers. You were selected as a possible participant in this study because you teach at Richardson Elementary in ISD 622 and your principal along with the district as agreed to the pilot. The researcher (Jessica Cabak) is examining the population of middle school teachers for her dissertation as she completes her doctorate in Educational Leadership through Bethel University. Your school was chosen to participate in the pilot as teachers in your building can be considered comparable to the population of interest for the study (due to experience with instructional coaching and professional development). If you decide to participate, Jessica will ask you questions regarding your reflective practice along with demographic questions to help her understand your involvement in your school's model of instructional coaching. The survey has 30 questions and will take approximately 10-15 minutes to complete.

Your response is completely anonymous - the Qualtrics program being used does not collect even the IP address you are using.

When you complete this survey, **you can enter your name into a drawing for one of two Target gift cards valued at $10 each**. To enter, once you submit this survey there will be an option for you to click on a link that takes you to a different survey where you will be asked for

your name. It is done this way to ensure that no identifying information can be connected to your survey results.

Any information obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission. In any written reports or publications, no one will be identified or identifiable and only aggregate data will be presented.

This research study is dual in nature. As the researcher, Jessica is completing the study for her dissertation. Additionally, Jessica is an employee of ISD 622 and she is partnering with the school district to collect meaningful data. After the completion of the study, Jessica may take on a consulting role for the district, aiding in the use of the results of the study. At no time will raw data be shared, only aggregate data (with the possible exception of the optional open-ended responses).

Your decision whether or not to participate will not affect your future relations with ISD 622 and/or your school of employment in any way. If you decide to participate, you are free to discontinue participation at any time without affecting such relationships.

This research project has been approved by my research advisor in accordance with Bethel's Levels of Review for Research with Humans. If you have any questions about the research and/or research participants' rights or wish to report a research related injury, please call Jessica Cabak (651-748-6311) or her supervisor Dr. Annette Ziegler (763-506-7102). By completing the survey, you are granting consent to participate in this research.

Reflection and Coaching Survey – Informed Consent for Study

You are invited to participate in a study of instructional coaching and reflective practice. The hope is to learn how instructional coaching relates to the reflective practice of teachers. You were selected as a possible participant in this study because you teach in a middle school in ISD 622. The researcher (Jessica Cabak) is examining the population for her dissertation as she completes her doctorate in Educational Leadership through Bethel University. If you decide to participate, Jessica will ask you questions regarding your reflective practice along with demographic questions to help her understand your involvement in your school's model of instructional coaching. The survey has 30 questions and will take approximately 10-15 minutes to complete.

Your response is completely anonymous - the Qualtrics program being used does not collect even the IP address you are using.

When you complete this survey, **you can enter your name into a drawing for one of 10 Target gift cards valued at $10 each**. To enter, once you submit this survey there will be an option for you to click on a link that takes you to a different survey where you will be asked for your name. It is done this way to ensure that no identifying information can be connected to your survey results.

Any information obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission. In any written reports or publications, no one will be identified or identifiable and only aggregate data will be presented.

This research study is dual in nature. As the researcher, Jessica is completing the study for her dissertation. Additionally, Jessica is an employee of ISD 622 and she is partnering with the school district to collect meaningful data. After the completion of the study, Jessica may take on a consulting role for the district, aiding in the use of the results of the study. At no time will raw data be shared, only aggregate data (with the possible exception of the optional open-ended responses).

Your decision whether or not to participate will not affect your future relations with ISD 622 and/or your school of employment in any way. If you decide to participate, you are free to discontinue participation at any time without affecting such relationships.

This research project has been approved by my research advisor in accordance with Bethel's Levels of Review for Research with Humans. If you have any questions about the research and/or research participants' rights or wish to report a research related injury, please call Jessica Cabak (651-748-6311) or her supervisor Dr. Annette Ziegler (763-506-7102). By completing the survey, you are granting consent to participate in this research.

Read each of the following scenarios and select the response that is most accurate, most likely to be true, or most often the approach you would take in the given situation. You will likely find that some of the scenarios have more than one option that matches your style. In that case, go with your gut -- what would you typically do? Try to be accurate, but work quite quickly. There are no right or wrong answers -- please be honest.

When planning for today's (or tomorrow's) lesson, I...

- ❍ Begin with the content and activities that we will be covering and occasionally prepare specific teaching strategies.
- ❍ Utilize recent student assessment data to determine what I'm going to teach and how I'm going to teach it.
- ❍ Spend most of my time deciding which instructional methods I'll use to meet the specific needs of my students, replying on unit plans to determine the content.
- ❍ Consult the teacher's edition of the textbook and follow the lessons provided.

When considering how often I reflect on my teaching, I...

- ❍ Routinely reflect after teaching a lesson and/or analyzing an assessment.
- ❍ Reflect after grading student work or when prompted by an administrator, coach, or colleague.
- ❍ Occasionally reflect after grading assignments or quizzes.
- ❍ Continuously reflect, including during the lesson itself.

When planning to address student misconceptions, I...

- ❍ Address them when they occur, because it is difficult to tell where students will struggle.
- ❍ Follow the established plan for the lesson from beginning to end.
- ❍ Analyze student work to determine what struggles students are having and then plan to address them.
- ❍ Plan for check-ins throughout the lesson, so I can provide support as necessary.

When I encounter students who struggle in a lesson, I...

- Analyze each student's specific struggles to determine a course of action designed to address them.
- Can't always tell why they struggle, because there are so many variables.
- Realize I have little control over how some students perform, so I continue to encourage them.
- Look at my teaching strategies to see if changing them might have a better effect.

When attempting to reengage students who are off-task, I...

- Stop the lesson, regroup students, and resume the lesson when I'm ready.
- Address the situation with a variety of preplanned engagement strategies.
- Employ a strategy that I am most comfortable with and have used before with success.
- Use ideas from the lesson plan I'm following and/or power through in hopes that students will reengage.

When I ask questions in class, I...

- Ask questions that I have prepared in advance.
- Ask questions from a collection I have prepared, varying my asking/answering strategies.
- Ask questions that come to me while I'm teaching and that will continue to move the lesson forward.
- Ask questions that are included (as written) in the lesson plan.

When describing the students I teach each day, I...

- Can identify those who are most/least successful, who struggle with assignments, and who are the first to finish.
- Can identify individual academic profiles and can cite the latest assessment data.
- Tend to focus on their personalities, behavioral patterns, and overarching descriptive traits.
- Can explain the latest assessment data, including anecdotal information, and can describe how they are grouped for instruction.

When students are struggling in a lesson, I...

- ❍ Stick with the lesson plan to make sure we cover the required material.
- ❍ Attempt to address the learning gaps by modifying the following day's lesson.
- ❍ Adjust my instructional approaches immediately.
- ❍ Go back and reteach the problems they got wrong.

When determining the level of success in a particular unit, I...

- ❍ Monitor the progress of individual students through continuous formative and summative assessment strategies.
- ❍ Monitor class performance on lesson assignments and/or quizzes to see if students are "getting it."
- ❍ Monitor performance by administering an end-of-unit test and noting student scores.
- ❍ Monitor class progress through formative and summative assessment strategies.

When reflecting on my students' assessment performance levels, I...

- ❍ Check the grade book to see how the students fared.
- ❍ Can describe individual students and the specific concepts they have mastered.
- ❍ Explain with detail how groups of students performed.
- ❍ Provide information about how the class did as a whole.

Please read the following questions and select the response that indicates the degree to which you agree or disagree with each of the statements. Try to be accurate, but work quite quickly. Do not spend too much time on any question. There are no "wrong" or "right" answers - only your own personal perspective.

I don't often think about my thoughts.

- ❍ Disagree Strongly
- ❍ Disagree
- ❍ Disagree Slightly
- ❍ Agree Slightly
- ❍ Agree
- ❍ Agree Strongly

I am not really interested in analyzing my behavior.

- ❍ Disagree Strongly
- ❍ Disagree
- ❍ Disagree Slightly
- ❍ Agree Slightly
- ❍ Agree
- ❍ Agree Strongly

It is important for me to evaluate the things that I do.

- ❍ Disagree Strongly
- ❍ Disagree
- ❍ Disagree Slightly
- ❍ Agree Slightly
- ❍ Agree
- ❍ Agree Strongly

I am very interested in examining what I think about.

- ❍ Disagree Strongly
- ❍ Disagree
- ❍ Disagree Slightly
- ❍ Agree Slightly
- ❍ Agree
- ❍ Agree Strongly

I rarely spend time in self-reflection.

- ❍ Disagree Strongly
- ❍ Disagree
- ❍ Disagree Slightly
- ❍ Agree Slightly
- ❍ Agree
- ❍ Agree Strongly

I frequently examine my feelings.

- ❍ Disagree Strongly
- ❍ Disagree
- ❍ Disagree Slightly
- ❍ Agree Slightly
- ❍ Agree
- ❍ Agree Strongly

It is important to me to try to understand what my feelings mean.

- ❍ Disagree Strongly
- ❍ Disagree
- ❍ Disagree Slightly
- ❍ Agree Slightly
- ❍ Agree
- ❍ Agree Strongly

I don't really think about why I behave in the way that I do.

- ❍ Disagree Strongly
- ❍ Disagree
- ❍ Disagree Slightly
- ❍ Agree Slightly
- ❍ Agree
- ❍ Agree Strongly

I have a definite need to understand the way that my mind works.

- ❍ Disagree Strongly
- ❍ Disagree
- ❍ Disagree Slightly
- ❍ Agree Slightly
- ❍ Agree
- ❍ Agree Strongly

I frequently take time to reflect on my thoughts.

- ❍ Disagree Strongly
- ❍ Disagree
- ❍ Disagree Slightly
- ❍ Agree Slightly
- ❍ Agree
- ❍ Agree Strongly

It is important to me to be able to understand how my thoughts arise.

- ❍ Disagree Strongly
- ❍ Disagree
- ❍ Disagree Slightly
- ❍ Agree Slightly
- ❍ Agree
- ❍ Agree Strongly

I often think about the way I feel about things.

- ❍ Disagree Strongly
- ❍ Disagree
- ❍ Disagree Slightly
- ❍ Agree Slightly
- ❍ Agree
- ❍ Agree Strongly

Do you work at John Glenn Middle School?

- ❍ Yes
- ❍ No

How often do you participate in a coaching experience? This may include having a coach observe your classroom, visiting another classroom with your coach, curriculum planning with your coach, having a coach videotape your lesson, and/or having a coach administer a student survey in your classroom and processing the results. Coaching experiences can be individual or in small groups such a grade level pairs.If you had coaching experiences last more than one day (for example, coach provided feedback by observing your classroom for three days in a row) please count each day as a separate experience.

- ❍ I don't work with an instructional coach.
- ❍ I've had one or two coaching experiences this year.
- ❍ I've had three or four coaching experiences this year.
- ❍ I've had more than four coaching experiences this year.

How long have you been working with an instructional coach? Note: does not have to be the same coach for the whole time.

- ❍ I don't work with an instructional coach.
- ❍ Less than a year
- ❍ One year to three full years
- ❍ Four years or more

How valuable do you find working with an instructional coach?

- ❍ Not Valuable
- ❍ Somewhat Valuable
- ❍ Valuable
- ❍ Very Valuable

Consider each statement. How important is the truth of the statement to your participation (or chance of participation) in coaching?

	Not Important	Somewhat Important	Important	Very Important
I choose what I work on with my coach.	❍	❍	❍	❍
I choose how often I work with my coach.	❍	❍	❍	❍
I choose what kind of coaching experience I have (observations, visits to classrooms, curriculum planning, etc.)	❍	❍	❍	❍

Is there any additional information you would like to provide? For example, points of clarification on your responses or comments about your experience with instructional coaching?