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EFFECTS OF COGNITIVE COACHING ON TEACHER EFFICACY

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EFFECTS OF COGNITIVE COACHING ON TEACHER EFFICACY

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EDCI 590 INDIVIDUAL RESEARCH

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Abstract

Educators in the American school system have been under pressure to increase academic achievement among all students especially within the past decade. Government initiatives and high-stakes testing have ushered in a new era of accountability. Many attempts at school reform have been made with little success. Current research has found that the variable with the greatest impact on student achievement is the quality of the instructor. Attempts at improving teacher effectiveness have included merit pay, professional development, utilizing a scripted curriculum, and coaching.

Studies have shown that professional development embedded within the classroom is most beneficial in terms of improving instruction and increasing student achievement. Continuing the professional development after the initial delivery can prove to be difficult. Both Professional Learning Communities and peer coaching are techniques used to support instructors in implementing new concepts. However, Cognitive Coaching[sm] on a one-on-one basis has greatly influenced change in teacher behaviors, increasing teacher efficacy, and elevating student achievement scores.

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Introduction

Instructional coaching has moved to the forefront of education reform practices since No Child Left Behind (NCLB) and Individuals with Disabilities Education Act (IDEA) (Wheat-Townsend, 2016). With the numerous failures of education reform pushed by politicians and private enterprises, a new approach is required. Various methods of instructional coaching abound, however there has been little research conducted on the effectiveness of any given method (Gyllensten, 2011). Alexander Kurz (2017) speaks passionately about the need for additional research in determining the efficacy of coaching approaches which "lead to improved classroom practices and academic performance of all students" (p. 69).

Purpose

Among school-related factors affecting academic achievement, teacher quality has the greatest impact on student learning (Rogers, 2016; Wheat Townsend, 2016). Slinger (2004) reiterates that "it is the teacher, not the program that makes the difference" (p. 29). Hence, it is necessary to identify effective strategies to support teachers in providing excellent instruction for students. Current trends lean toward Professional Learning Communities and instructional coaching. Little research has been conducted on the effectiveness of instructional coaching (Kurz, 2017).

Many methods of instructional coaching exist (Greene, 2004; Strahan, 2010; Wheat Townsend, 2016). Kurz (2017) states there has been much variation in coaching without a systematic review of the effectiveness of methods. For the purpose of this study, the researcher chose to focus on Cognitive Coaching[sm].

Problem Statement

What effects does Cognitive Coaching[sm] have on increasing efficacy of public school teachers?

Rationale for the Study

One focus area for increasing effectiveness of individuals and organizations in the work environment has been coaching. This practice takes on a variety of forms, crossing many disciplines. While the methods are numerous, the literature and research on the effectiveness of these approaches is lacking (Kurz, 2017; Gyllensten, 2011).

Definitions

Coachee - an individual who is receiving coaching from a coach trained in the Cognitive Coaching[sm] approach.

Coaching Cycle – a complete coaching cycle includes the Planning Conversation, the Observation, and the Reflecting Conversation (DeMasters, 2018).

Cognitive Coach - an individual who has been formally trained and certified in Cognitive Coaching[sm]. Formal training consists of eight, full-day sessions. Coaches may hold the formal position of administrator, specialist, or teacher.

Cognitive Coaching[sm] - a type of mentoring designed to increase individual effectiveness. This occurs through a process of questioning and paraphrasing responses to help guide the thought process of the one being coached (coachee).

The term Cognitive Coaching is trademarked by Costa and Garmston. For the purpose of this study, cognitive coaching refers to the style of coaching developed by Costa and Garmston.

Elementary and Secondary Education Act (ESEA) - a civil rights law providing grants to state educational agencies to assist in improving the quality of education in elementary and secondary schools. This law also provided stipends for districts serving low-income students. It was signed into law in 1965 by President Lyndon B. Johnson.

Every Student Succeeds Act (ESSA) - signed into law by President Barrack Obama in 2015 to ensure success for schools and students. Key components included accountability measures, focus on promoting equity for disadvantaged and high-need students, and a push for high academic standards enabling students to succeed in college and careers.

Five States of Mind – Costa and Garmston identified five states of mind or thinking patterns. These states of mind include Efficacy, Flexibility, Consciousness, Craftsmanship, and Interdependence.

Individuals with Disabilities Education Act (IDEA) - a law which ensures a free and appropriate education for students with disabilities. This law was signed in 1975 by President Gerald Ford, reauthorized in 2004, and amended through ESSA in 2015.

No Child Left Behind (NCLB) - a law enacted in 2002 under President George W. Bush to increase student achievement using strict accountability measures and consequences. State tests were mandated to measure student proficiency in grades 3-12, however states determined what the criteria was for "proficient." The goal was for all students in the nation to be proficient on state tests by the 2013-2014 school year.

Teacher efficacy - a teacher's beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments. Teaching efficacy refers to the thought that teachers can make a difference. Terms associated with efficacy may include self-confidence, craftsmanship, or effectiveness.

Race to the Top – awarded competitive grants to local education agencies to implement reforms and innovations designed to improve academic achievement and reduce learning gaps among specified student subgroups. Grants were awarded by the federal government through the American Recovery and Reinvestment Act.

Reading Excellence Act – a federally run grant program providing funds to low-performing, high-poverty school districts to support reading readiness initiatives in grades K-3.

Literature Review

In 2001, President Bush signed into law No Child Left Behind (NCLB) to increase the nation's student achievement and hold public schools more accountable (Wheat-Townsend, 2016). This initiative, along with others (e.g., Elementary and Secondary Education Act, 1965; Every Student Succeeds Act, 2015; Individuals with Disabilities Education Act, 2004; Race to the Top Act, 2011; Reading Excellence Act, 1999) "have emphasized the need to support teachers' use of evidence-based practices for improving student learning and behavior" (Kurz, 2017, p. 66). During this time, many strategies were employed to reform the school system of America. Privatization of schools, charter schools, restructuring internal administration, and firing teachers for lack of student achievement were issues facing schools which were not meeting the requirements set forth by high-stakes tests and accountability measures. In addition, the business sector and local government officials attempted to cure the illnesses of the schools through micromanagement and business-style leadership (Ravitch, 1998, pp. 234-236). However, these traditional notions of leadership rarely met the challenges facing the educational entity (Strahan, 2010).

As accountability measures increased and new methods of educational transformation were required, research on effective teaching techniques became more proliferate (Wheat Townsend, 2016). Federal legislation pushed the movement of research-based teaching techniques and the use of data to inform instructional decisions (Kurz, 2017). Professors and researchers took on the challenges of identifying effective leadership techniques, teaching methods, and learning strategies to address the multiple variables affecting student academic achievement. During this time, instructional coaching surfaced as a key strategy for increasing teacher effectiveness and student achievement (Wheat Townsend, 2016).

Instructional Coaching

Within the scope of instructional coaching, many approaches emerged. Some of those approaches included technical coaching, team coaching, peer coaching, collegial coaching, and cognitive coaching (Greene, 2004; Kurz, 2017; Strahan 2010; University of Florida, 2016). Of these methods, two central themes regarding instructional coaching surfaced. Technical coaching, team coaching, and peer coaching focus on current teaching techniques and delivery. Collegial coaching and cognitive coaching, on the other hand, concentrate on improving the current practices of instruction (Greene, 2004).

While coaching methods were changing, supervision and evaluation procedures were also evolving. In the early 1970s, Morris Colgan and Robert Goldhammer developed clinical supervision. Through this method of supervision, teachers were given feedback in a collegial, non-judgmental means in efforts to improve instruction and repertoire (Hampton, 2009). In the 1980s, Madeline Hunter revised the clinical supervision model to evaluate the more technical/didactic aspects of teaching. Sequence of instruction and procedures became more of a focus and the humanistic model supporting interpersonal relationships faded away (Aleiske, 1997; Smith, 1997). In the mid-80s to 90s, a shift occurred from systematically changing teacher behaviors to influencing the cognitive process of teachers to help them improve instruction (Alseike, 1997). This era ushered in cognitive coaching.

While Hunter attempted to change the behaviors of the teacher or "fix" what is wrong with the teacher (Alseike, 1997; Townsend, 1995), Art Costa and Bob Garmston (2002) argued behaviors are preceded by thoughts. To improve a teacher's practice, one must improve or deepen his/her thought processes. This concept sets the foundation of cognitive coaching.

Research has found the single most influential school-based factor is the effectiveness of the teacher (Frase, 2001; Wheat Townsend, 2016). "Most effective teachers are autonomous individuals – self-asserting, self-perpetuating, and self-modifying" (Costa, 2002, p. 4) or efficacious. Teacher efficacy has been found to be the most consistent variable affecting school success (Alseike, 1997; Greene, 2004; Smith, 1997). Smith (1997) reports "cognitive coaching has the potential to facilitate teacher development and increase teacher efficacy by giving teachers control and power to be effective" (p. 43).

Professional Development

"While principals need to keep current about policies and regulations, their main focus should be to ensure the development and maintenance of effective educational programs and teaching within their school to enhance student learning and achievement" (Rogers, 2016). This is best done through on-going professional development. Multiple researchers have found on-going embedded professional development has greater benefits for continued change than one day in-services (Feeney, 2007; Slinger, 2004; Wheat Townsend, 2016). Beverly Showers and Bruce Joyce (1996) found fewer than ten percent of teachers participating in one day in-services implement what they learn. Given this information, many schools have begun to employ instructional coaches to support classroom teachers in applying new strategies as part of continuing professional development (Wheat Townsend, 2016). This coaching results in greater implementation of new instructional strategies (Greene, 2004). Slinger (2004) reported coaching is critical for the application of learning to occur.

However, one caveat is that coaches must be adequately trained; and roles must be clearly defined. Many coaches have been placed in positions without adequate training, knowledge of the challenges, or explicit expectations of their duties. One study of 15 different

instructional coaches found the term "coach" had been used in multiple ways, furthering the misconceptions of what the responsibilities of a coach were (Greene, 2004). The various terms and styles of coaching have yet to be commonly defined.

Coaching Practices

Coaching practices vary in method and approach. Multiple models have been created in the past few years. Those models include but are not limited to: 1) instructional coaching; 2) peer coaching; 3) consulting; 4) school-wide (reform) coaching; 5) technical coaching; and 6) cognitive coaching (Summer, 2011; Kurz, 2017). Many coaching practices have risen to the forefront of education reform, yet there has been limited research to determine the effectiveness of those approaches (Kurz, 2017). Descriptions of the aforementioned coaching practices follow.

Instructional Coaches. Instructional coaches assist with a variety of practices. They are not necessarily content experts but experts in coaching, who know the right questions to ask and the right decisions to make in order to move a teacher further along in his/her practice. Instructional coaches customize professional development to match each teacher's needs and interests while they help the school establish common understanding among all teachers. Instructional coaches may use a variety of coaching techniques to reach the end goal (Wheat Townsend, 2016).

Peer Coaching. Peer coaching is a technique which facilitates colleagues' collaboration and sharing of ideas, thoughts, and observations. This practice can enable teachers to better understand themselves and their students in order to make learning more meaningful (Soisangwarn, 2014). Key components of this coaching style include collective ownership and mutual support and development of goals, plans, and materials. Colleagues serve as both the coach and the coachee at given intervals. Peer coaching provides opportunities for teachers to

learn collaboratively with their peers. Observations are non-evaluative and can occur without verbal feedback (Kurz, 2017). While peer coaching may prove to be cost effective and sensible, studies have found little to no effect on goal attainment using this technique (David, 2016). Ross and Bruce (2007) noted in their study the effects of peer coaching had a small impact on increasing teacher efficacy.

Consulting. A consultant is an individual with specialized expertise in a specific field or content area. They typically provide information, identify problem areas and potential solutions, and facilitate change within the organization to build comradery and lead the group to meeting the goals set forth (Bennett, 2001).

School-wide Reform Coach. A reform coach enters the educational setting with a mindset to bring about school wide improvement. The duties of the reform coach include supporting administration and teachers in school leadership, sharing decision making, assisting in oversight of time management, and observing classroom lessons while providing feedback to instructors. A reform coach models leadership, facilitates teacher-principal interaction, and coordinates principal-teacher participation in the reform efforts (Kurz, 2017).

Technical coaching. Technical coaches focus on the sciences of improving teacher skills and increasing fidelity of intervention implementation. Coaching is presented through modeling, teacher practice and observations with feedback (Kurz, 2017).

Cognitive Coaching[sm]. Cognitive coaching is founded on the idea that behaviors are caused by thoughts. If the thought process is clarified and changed, then the behaviors change. Among educators, intentional planning, clarification of objectives, and reflective practice leads to improved instructional delivery. The process of cognitive coaching allows coachees to identify their own areas of growth, mindfully plan for instruction, and reflect on practices through a

series of questions led by the coach. Using the process of paraphrasing and questioning, the cognitive coach promotes in depth thought regarding instructional processes and allows the coachee to internalize his/her actions. With a change in thinking comes a change in behavior. When a coachee identifies his/her own areas of strength or weakness, there is an increase in ownership and a higher likelihood the individual will maintain improved techniques (Costa, 1994).

Delivery Methods

Coaching may be provided to educators by principals, specialists (math, reading), instructional coaches, or colleagues. Research has found the formal position of the coach (administrator, specialist, instructional coach, or colleague) does not change the outcome of teacher improvement (Alseike, 1997; Edwards, 2016). However, intentions must be clearly identified for the purpose of each coaching session. Importantly, one must distinguish between coaching and evaluating (Edwards, 2016).

Lack of clearly defined responsibilities impedes relationship building and trust between coach and coachee. Without trust and confidentiality, changes in teacher efficacy are limited. Most importantly, coaches must spend time and energy in building trusting relationships with participants (Strahan, 2010).

Another issue to consider prior to employing the use of a coach includes defining the role and expectations of the coach's position. Administrators should realistically outline the duties and responsibilities of the position and clearly communicate those expectations with the coach and staff. If the coach is expected to work with both teachers and students, specific details should be communicated and written in a job description. There should also be support and training available for the coach (Bean, 2015).

Reliable data collected on the effectiveness of coaching is dependent on having clearly defined expectations of the given position. This study focuses on the role of a formally trained Cognitive Coach thus eliminating variables in technique, training, and type of coaching.

Methodology

This study uses a systematic review or meta-synthesis of existing research to identify commonalities and differences in efficacy among public school teachers K-12 who participated in cognitive coaching experiences.

Andy Siddaway and associates (2019) define a systematic review as a process to synthesize and critique high-quality literature reviews on a given topic in attempt to identify what is known and what we need to know. This approach is methodical, replicable, and transparent. The intent of a meta-synthesis is to collect evidence of individual studies, draw broad conclusions regarding key concepts, and explain how existing research supports and confirms (or opposes) given theories (Siddaway, 2019). The Cochrane Community (2003) defines a systematic review as "a review of a clearly formulated question, that uses systematic and explicit methods to identify, select, and critically appraise relevant research, and to collect and analyze data from the studies that are included in the review." The following steps outline the process in conducting the meta-synthesis for this research study.

Method of Inquiry

A single, clearly stated research question was created to guide the research process. This question was revised among a group of colleagues to further clarity and focus.

Literature Review

With this guiding question, a comprehensive review of literature pertaining to the effects of Cognitive Coaching[sm] on teacher efficacy was synthesized to provide a basis for the study. Information gained included a continuum of supervisory and instructional practices dated to the early 1970s. Definitions of coaching styles were provided as well.

Data Collection and Analysis

Data were collected from previous studies completed. Articles selected for review relate to cognitive coaching in the public education system. Studies include coaches who have been formally trained in Cognitive Coaching[sm]. Studies also evaluate quantitative data. Articles pertaining to cognitive behavior therapy are not included as they relate more to personal psychological change in patients rather than professional change in educators (Valentine, 2010). Records of articles reviewed were maintained on a spreadsheet with reasonings as to why they were chosen or excluded for review.

Extensive research occurred using multiple search engines to obtain relevant data available to support or disprove the effectiveness of Cognitive Coaching[sm] in increasing teacher efficacy. Attempts were also made to locate unpublished materials relevant to the study.

Data Analysis

Four studies were thoroughly examined and reviewed to identify common themes in the application of Cognitive Coaching as related to increasing teacher efficacy. Inclusion criteria for studies in this synthesis are: 1) use of Cognitive Coaching as a coaching model; 2) formal training of coaches and/or teachers in cognitive coaching; and 3) research occurred in public schools grades K-12. Descriptions of those studies follow.

Research focusing on "The Effects of Cognitive Coaching on Teacher Efficacy and Empowerment" was conducted by Jennifer L. Edwards and Rae R. Newton in 1994. Participants in this study were placed in three subgroups; a control group of 92 educators who had not received Cognitive Coaching training, 27 who had received training in 1991, and 24 who were trained in 1992. 8% of the participants were principals and 3% were central office administrators,

with the remaining percentage being teachers. The instruments used in this study were the

Vincenz Empowerment Scale (Vincenz, 1990) and the Teacher Efficacy Scale (Gibson &

Dembo as cited in Edwards, 1994). These assessments were administered one time at the end of

the study. Baseline data were not gathered. The location of the study was not mentioned.

Beth Ushkow Alseike sought to identify the influences of Cognitive Coaching on

teachers in 1997. 136 teachers from 10 schools in Douglas County, Colorado participated in this

study. Coaches in this county were trained and experienced in Cognitive Coaching. A minimum

of six years of experience was required; 70% of the coaches had eight years of experience. All

coaches met with the teachers in a coaching capacity at least weekly. The comparison group

consisted of 121 teachers who were not cognitively coached. The measurement tool used was the

Cognitive Coaching Survey, parts I and II. Part I assessed influences of cognitive coaching on

the instructional process. This was given only to the participants in the group. Part II assessed the

five states of mind and was given to both the control group and the participants.

In a 1998 study titled "The Effects of Cognitive Coaching and Nonverbal Classroom

Management on Teacher Efficacy and Perceptions of School Culture," Jennifer L. Edwards,

Kathy E. Green, Cherie A. Lyons, Mary S. Rogers, and Marcia E. Swords collected data over a

three-year period from 202 teachers working in a large metropolitan school district on the west

coast. The experimental group consisted of 138 teachers who were trained in Cognitive

Coaching, coached each other, and received coaching from 36 cognitive coaches. 164 teachers

were in the control group. Instruments used to measure results included The Teacher Efficacy

Scale and the School Culture Survey. Additional tools of assessment were used, but not analyzed

in this study.

In 2018, Gretchen A. DeMasters conducted a study to determine the relationship between teacher's use of Cognitive Coaching in the classroom and teacher efficacy. Participants in the study were trained in the eight-day session of the Foundations of Cognitive Coaching. The sample size consisted of 44 teachers working in southwest Missouri. The researcher used the Tschannen-Moran short form survey to gather baseline data and measure relationships between Cognitive Coaching and teacher efficacy. The survey measured the degree of efficacy participants felt in using wait time, paraphrasing, and asking mediative questions in the areas of student engagement, instructional strategies, and classroom management. DeMasters' study focused on teacher implementation of Cognitive Coaching tools (wait time, paraphrasing, mediative questioning) as they were used in the classroom unlike other studies which tend to focus directly on the coaching process as applied to improving teacher instruction and efficacy.

All four studies had portions devoted to identifying the correlation between cognitive coaching and teacher efficacy. Each study used formal assessments to evaluate impact of cognitive coaching practices on teacher efficacy. Other ideals which surfaced include quality of training and experience of coaches, personal investment of participants, and number of coaching cycles.

"The qualities and attributes of the coach are critical to meeting teachers' individual adult learning needs (Squire, 2016, pg. 4)." In 2016, the University of Florida published a report indicating "teachers who experience high-quality coaching are more likely to enact the new teaching practices and apply them more appropriately" (pg. 6). Hence, Alseike, DeMasters, and Edwards ensured that teachers were trained in Cognitive Coaching with the Cognitive Coaching Seminars Foundation Training created by Costa and Garmston (1989) for the purposes of their studies. This training occurs over an eight-day period and provides an understanding of the

foundations of Cognitive Coaching. Alseike (1997) employed the use of coaches who not only had formal training, but also had a minimum of six years of experience. In Edward's studies (1994, 2018) teachers were formally trained in Cognitive Coaching. In her 2018 study, participants had also applied skills over a three-year period both in the classroom with students and in coaching each other. The research conducted by Edwards in 1994, compared teachers who had one year of experience applying cognitive coaching skills to those who had two years of experience. Those with increased time to practice the skills learned had higher scores of teacher efficacy.

Research has also indicated that the number of coaching cycles teachers participate in correlates to teacher efficacy. While Robinson (2011) found a significant increase in self-efficacy over three cycles of cognitive coaching, other researchers found the number of coaching cycles most effective for increasing teacher efficacy should be greater than six (Alseike, 1997; Slinger, 2004; Edwards, 2020). Houston (2015) found the minimum number of coaching sessions for effective implementation of approaches was eight to nine (as cited in DeMasters, 2018).

While an educator's knowledge of pedagogy is important, teacher enthusiasm and motivation must also be taken into consideration when assessing the effectiveness of a strategy (Leat, 2006). Edwards (2018) noted that participation level in coaching activities directly correlated to higher scores of teacher efficacy as reported by the Teacher Efficacy Scale. In Edwards' 1994 study, she identified a limitation may have been that all participants were volunteers inferring that volunteers may be predispositioned with a higher level of efficacy to begin with. It is important to note that participants in the studies reviewed were volunteers. DeMasters (2020) also indicated motivation may directly relate to efficacy levels.

Findings and Conclusions

A systematic review of the four studies chosen for evaluation provides strong evidence cognitive coaching positively influences teacher efficacy both in overall performance and in targeted areas such as student engagement, classroom management, and instructional practices.

Alseike's (1997) research showed cognitively coached teachers scored above average on post-test results in the area of efficacy. Data also showed evidence teachers who coached (in addition to being coached) had greater levels of efficacy given increased experience in assuming the role of coach. Her study inferred cognitively coached teachers were more efficacious and interdependent than the comparison group. DeMasters (2018) measured teacher efficacy in correlation with specific components of cognitive coaching. Results indicate moderate positive relationships of teacher efficacy in the areas of student engagement, instructional strategies, and classroom management. These results collectively indicate a moderate positive relationship between the implementation of cognitive coaching and teacher efficacy overall (DeMasters, 2018). Edwards' (1998) research also measured cognitive coaching components in regard to teacher efficacy. She noted high scores in teacher efficacy correlated with the use of the coaching skills and results indicated positive outcomes as a result of cognitive coaching. Findings from these studies provide evidence Cognitive Coaching increases teacher efficacy. In Edwards' 1994 study, outcomes indicated higher levels of teacher efficacy in the experimental groups as compared to the control group. When data between the two treatment groups were analyzed, the group which had been trained earlier scored higher on the efficacy assessment. Edwards inferred this was due to the additional time the group had to practice the skills learned from cognitive coaching (Edwards, 1994).

While various components of cognitive coaching were measured by the studies analyzed, the common outcome is Cognitive Coaching positively impacts teacher efficacy. The greater time spent applying the skills learned correlates to greater levels of efficacy (Edwards, 1994; Alseike, 1997; Edwards, 1998; DeMasters, 2018).

"The qualities and attributes of the coach are critical to meeting teachers' individual adult learning needs" (Squire, 2016, pg. 4). Hence, Alseike, DeMasters, and Edwards ensured teachers were trained in Cognitive Coaching with the Cognitive Coaching Seminars Foundation Training created by Costa and Garmston (1989) in each of their studies. This training occurs over an eight-day period and provides an understanding of the foundations of Cognitive Coaching.

Cognitive coaching influences teachers in the instructional process and all phases of planning, teaching, analyzing, and applying. The number of years of experience, gender of participants, or socioeconomic status did not significantly impact the influence of cognitive coaching in Alseike's study (1997) and Edwards' study (1998). However, in Edwards' 1994 study differences in levels of teacher efficacy were noted between males and females with females scoring higher on assessments. DeMasters (2018) did not report differences between experience, gender, or social economic status.

This study suggests cognitive coaching has positively impacted teacher efficacy in multiple studies occurring over a 20-year period. These data are significant because they provide evidence that Cognitive Coaching is a professional development tool which has continued to yield positive results in effecting teacher efficacy, improving instruction, and increasing student achievement given the test of time.

Recommendations for Further Study

Continued research is needed to evaluate the effectiveness of various coaching methods and identify those with the greatest impact on increasing achievement in teachers and students. A comparison study of Cognitive Coaching and another coaching technique could provide insight into the effectiveness of a given coaching process. Would it be beneficial for coaches to know and use a variety of coaching styles or deeply understand and apply one technique? Does one style of coaching show evidence of greater gains over another? How do the coaching styles match up with teacher personalities?

Cognitive coaching has evidenced having positive results on educators regardless of their years of experience; however, is there a point of maximum impact in an educator's career to exponentiate the results of coaching? Should this be a practice implemented in student teacher's instructional program?

What impact does Cognitive Coaching have at the collegiate level? The opportunities for application outside of the primary and secondary school settings are vast.

Limitations of Study

The measurement tools used in each study were different. Results may have been skewed due to the variables in assessments. Edwards conducted two of the studies which may have led to bias in analyzing data.

Participants in this study were volunteers. According to Edwards (1994), "…the act of volunteering, in and of itself, may to some extent be indicative of efficacy and/or empowerment" (pg. 20).

The number of studies reviewed for this synthesis were limited. Additional studies may strengthen or disprove the findings. However, this researcher was unable to locate any studies disputing a positive correlation between cognitive coaching and teacher efficacy.

Research occurred during the 2020 COVID-19 quarantine. Libraries closed. Access to research materials were limited mainly to what could be obtained via the internet. Interlibrary loans were not readily available.

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Appendix A

Studies to be used in Systematic Analysis

Author	Date	Title	Type of research	Number of Subjects	Coach qualifications	Reasoning for selection
Alseike, Beth Ushkow	1997	Cognitive Coaching: Its Influences on Teachers	Quantitative	121 elementary teachers in study group, 136 in control group	Official training of 8 full days and 6 years experience as a coach.	Meets inclusion criteria, highly trained Cognitive Coaches, Elementary school setting, Component of Efficacy is measured
DeMasters, Melinda C.	2018	Relationship between Teachers' Use of Cognitive Coaching SM in the Classroom and Teacher Efficacy	Quantitative	44 subjects, elementary school	Official training of 8 full days.	Meets inclusion criteria, component of teacher efficacy is measured and described.
Edwards, Jennifer	1994	The effects of Cognitive Coaching on teacher efficacy and empowerment.	Quantitative	143 teachers, principals, and admin., 2 treatment groups, 1 control group	Official training of 8 full days.	Meets inclusion criteria.
Edwards, Jennifer	1998	Effects of Cognitive Coaching and Nonverbal Classroom Management	Quantitative	3 year study, K-12 educators, 138 treatment subjects, 164 control subjects	peer coaching, stated training but did not explicitly identify quantity of training or experience.	Meets inclusion criteria, component of teacher efficacy is measured and described.
Excluded Articles						
Smith, Christine	1997	Self-reflection as a means of increasing teacher efficacy through cognitive coaching	Quantitative	6 subjects, 2-4 years experience, control group	informal cognitive coahing training	Coaches not formally trained.
Squire, Patsy O.	2016	A Descriptive Single-Embedded Case Study of Novice and Veteran Teachers' Perspectives of Instructional Coaching	Qualitative	6 teachers, 3 Novice, 3 Veteran. 1 month time period	Not cognitive coaching specific, coaching experience 3 years or more	Not cognitive coaching specific, small sample size
Wheat Townsend, Jennifer D.	2016	Context-Specific Coaching: Discovering the Complexities of Using Instructional Coaching With Principals and Teachers	Qualitative	3 coaches, 2 year co-hort,	16 days training: 8 days cognitive coaching, 8 days Jim Knight	Not measuring teacher efficacy.
Townsend, Stephanie	1995	Understanding the Effects of Cognitive Coaching on Student Teachers and Cooperating Teachers	Qualitative	5 student teachers, 5 cooperating teachers	Limited informal training of cognitive coaching	Focus on validity of use for pre-service teachers.
Eger, Kim	2006	Teachers' Perception of the impact of Cognitive Coaching on their Teacher Thinking and Behaviors	Qualitative	90 tenured high school teachers, 90 non-tenured high school teachers	Formally trained in cognitive coaching tenured teachers with 2+ years of experience mentoring	Does not measure efficacy specifically, not at elementary school level.
Gyllensten, Kristina, et. al.	2011	Experiences of Cognitive Coaching	Qualitative	10 - 4 men, 6 women	Coaching experience, training in cognitive therapy, no formal cognitive coaching training	Mixed venues - not all elementary school workers.
Rosendale, Angela	2019	Mentoring Mentors: Considering the Supports Necessary to Create Effective Induction Programs	Qualitative	20 participants	Cognitive coaching specific	Focus on mentoring teachers development, not teacher efficacy specifically
Flatt, Katherine	2019	The Effect an Instructional Coaching Model has on Student Achievement, Teacher Efficacy, and Instructional Improvements	Mixed methods	21 teachers, 670 students	Not cognitive coaching specific, linear study over 2 years	The Impact Model by Dr. Jim Knight
Verstraete	2019	Development, Leadership and Change: An Analysis of Education Peer Coaches' Experiences	Qualitative	10 peer coaches, specifically assigned to coaching duties	Peer Coaching - did not detail coaching approach	Did not specify coaching training as cognitive coaching.
Trujillo	2018	Effective Leadership Attributes and Coaching Models for Principals				Focus on three styles of coaching to improve leadership of prinicpals
Attempts						
4/10/20 Emailed Jenny Edwards of Thinking Collaboratively regarding info of recipients for the outstanding research award in cognitive coaching.						
4/10/20 mailed Darren Ralston, instructional coach and editor of The Ed Narrative out of Charlottesville, VA seeking unpublished research.						