

## **Benefits of instructional coaching for teacher efficacy: A mixed methods study with PreK-6 teachers in California**

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This mixed-methods, survey research explores the impact of instructional coaching in a mid-sized California school district on teacher efficacy, as assessed in part by Tschannen-Moran and Woolfolk Hoy's (2001) *Teachers' Sense of Efficacy Scale*. Literature highlights instructional coaching activities, roles, and supports that can positively impact teachers. Research also identifies instructional coaches have the greatest impact when developing collaborative, trusting teacher relationships. Significant findings between perceived use of instructional coaching and teacher efficacy in classroom management, student engagement, and instruction are indicated. The paper includes implications for intentional use of instructional coaching with novice teachers to increase efficacy and how differentiation of instructional coaching with veteran teachers might increase value of the coaching process for this subgroup.

### **Introduction**

Continued evidence highlights that professional development initiatives for educators are more effective with direct, intensive forms of mentoring-type support (Devine, Houssemand & Meyers, 2013; Castanheira, 2016). When instructional coaching is provided as a form of professional development, research shows teachers are more likely to implement rigorous differentiated supports for integrating research-based practices into instruction (Marzano, Simms, Roy & Heflebower, 2012; Devine et al., 2013; Aguilar, 2013; Gallant & Gilham, 2014). Instructional coaches, when assisting a community of practice to work together and expand their understanding of concepts, can increase teacher efficacy (Devine et al., 2013; Shields & Murray, 2017) and act as change agents to increase student learning (Shidler, 2009; Marzano & Simms, 2014; Aguilar, 2013; De Jong & Campoli, 2018).

Multiple studies over the years have found that activities involving instructional coaching, the roles of coaches, and supports provided by instructional coaching, positively impact teachers' self-efficacy (Dieger & Hurtig, 2009; McGatha, 2008; Sailors & Price, 2014; Shields & Murray, 2017; De Jong & Campoli, 2018; Eastman, 2019). Knight's (2017) instructional coaching model was the focus of the instructional coaching initiative in the district where the research reported here took place. The implementation of the model helped uncover teachers' perceived impact of instructional coaching benefits on their self-efficacy. Therefore, the following research questions guided the study reported here:

1. What is the relationship between the perceived impact of instructional coaching and teacher efficacy among teachers?
2. In what ways is the perceived impact affected by teachers' grade level or years of experience?

## **Literature review**

In social cognitive theory, self-efficacy is, "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 2). Along with influencing the choices and changes a person makes during crucial moments in one's life, self-efficacy impacts the emotional and psychological well-being of a person (Tschannen-Moran & Barr, 2004; Bandura, 2006; Brown, 2012). Motivation and determination, essential to improve skills and achieve success, can be afforded by self-efficacy (Bandura, 1997; Pajares, 2005).

## **Teacher efficacy**

Educators and researchers continue to purport the significant impact self-efficacy of teachers has on student learning (e.g., Elliott, Isaacs & Chugani 2010; Shidler, 2009; Marzano, 2017). An educator's self-efficacy, or teacher efficacy, is a personal analysis of their abilities to encourage and promote success on desired outcomes of classroom management, student engagement, and instruction (Bandura, 1997).

Teacher efficacy is constructed upon the belief in one's ability to arrange, organise, implement, and execute instruction successfully (Tschannen, et al., 1998). Effects of teacher efficacy contribute to capacity building within an individual, which leads to increased confidence in the ability to teach and affect student learning (Bandura, 1997; Tschannen-Moran et al., 1998; Ross, Hogaboam-Gray & Gray 2004). The combination of self-perception and individual conviction in one's capability to administer sound lessons results in successful instructional practices (Marzano & Simms, 2014; Marzano, 2017). When instructional practices are well executed, increased student achievement can be realised (Sari, Celikoz & Secer, 2009; Marzano & Simms, 2014). Teaching is an exceptionally individualised experience that necessitates time and mentoring in collaboration to develop well-structured lessons, reflect on pedagogy following a lesson, and practice in recognising appropriate instructional skills (Shields & Murray, 2017) in order to authenticate a teacher's sense of self-efficacy (Elliott, Isaacs & Chugani, 2010; Marzano, 2017).

## **Instructional coaching**

Instructional coaching is a way of embedding professional learning opportunities into the day-to-day work of teachers (Heineke, 2013; Kraft, Blazar & Hogan, 2018). Instructional coaches can support the development of teacher knowledge, skills, motivation, and collaboration (Knight, 2006; Aguilar, 2013). Their work can increase both teacher efficacy and agency in the coachee's ability to promote students' learning (Woolfolk Hoy & Spero, 2005; Charteris & Smardon, 2014; Kraft, Blazar & Hogan, 2018) and increase teacher

retention rates, particularly in urban settings (De Jong & Campoli, 2018). Teachers, especially those new to the profession, find more success and work more efficaciously in environments founded in collaboration and feedback (Charteris & Smardon, 2014; Whipp & Pengelley, 2017), especially when offered pedagogical and emotional support alongside the autonomy to experiment with new ideas (Shield & Murray, 2017; De Jong & Campoli, 2018).

### **Knight's instructional coaching model**

The work of Knight (2011; 2015; 2017) frames the instructional coaching model in the research district for this study. Specifically, the model is rooted in the understanding of a partnership between the teacher and the coach (Knight, 2011; 2017). This partnership includes voice, choice, and reflection as well as ongoing goal setting and dialogue as central to developing a meaningful professional coaching relationship to support teacher growth in identified target areas (Knight, 2017). Furthermore, the model expects instructional coaches to be trained and supported in their work with adult learners and the types of conversations to grow in their ability to best engage the teachers with whom they partner (Knight, 2015; 2017).

Along with these foundations, Knight's (2017) model follows a systematic approach to improvement, named the *Impact Cycle*. Knight's (2017) cycle includes three stages: 1) *Identify*, 2) *Learn*, and 3) *Improve*. In stage one, *Identify*, the coach uses questioning strategies with the teacher for self-reflection to determine a goal that can move teacher's current practice to their desired outcome, based on observation of video-recorded lessons and analysis of student work. Stage two, *Learn*, includes partnership work of discovering, attempting, and enhancing teaching strategies in order to meet the identified goal. This work can include coach modelling, co-teaching, and viewing other teachers' live or recorded examples (Knight, 2017). Lastly, stage three, *Improve*, empowers teachers to implement the new strategies on their own and work with the instructional coach to monitor practice in similar ways as in stage one. This may also include modifications to strategies based on the teacher's context, such as student needs and available resources (Knight, 2017). Through this progress review, coaches intentionally encourage and assist teachers to find success and remain encouraged in their improvement efforts. Once success is determined, Knight (2017) model guides the partners to plan for next steps in beginning the cycle once again.

### **Impact of instructional coaching on teacher efficacy**

There are critical elements to good instructional coaching models (Eastman, 2019). These include the importance that the coach/coachee relationship is built on trust, that there is a reciprocal development in confidence and identity for both the coach and coachee, and that there is a use of a collaborative model where scaffolded experiences based on the ability of the coach in active listening, questioning and providing feedback for a specific outcome was most influential across contexts (Eastman, 2019).

Building teacher efficacy through the use of instructional coaching, when the elements of a good coaching model are in place, can cultivate school-wide success for teachers and students (Woolfolk Hoy & Spero, 2005; Marzano & Simms, 2014). Likewise, the most successful school improvement efforts centre professional learning on teacher knowledge, skills, motivation, and supportive working environments (Leithwood & Seashore-Louis, 2011; Marzano & Simms, 2014). The impact of these findings increases further when honest and reflective mentoring support is fostered, especially for new teachers (Tonna, Berkjerkholt & Holland, 2017). Implementing instructional coaching is a strategy to support teachers in these areas (Knight, 2006; Marzano & Simms, 2014) and has been found to significantly increase teacher retention rates, especially in urban settings (De Jong & Campoli, 2018).

## **Methods**

This study used a survey with Likert-type and open answer items. The participants were 127 teachers who had received instructional coaching in the district. The study was conducted in a public school district serving students in pre-kindergarten through twelfth grade, typically ages 4 to 18. The school district is located in the central part of California, and serves urban, suburban and rural areas for close to 16,000 ethnically, racially, linguistically, and socio-economically diverse students.

The participants included in the study were teachers from the district who taught pre-kindergarten (Pre-K) through grade six and had received coaching or mentoring. The teachers could be employed at any one of the district's 14 elementary schools. The district utilises instructional coaching for supporting the professional development of teachers. At the time of the study, instructional coaching had been in place in the district for nine years. Coaching began as a top-down model of accountability in year one, but transitioned to a teacher-driven, collaborative coach/coachee model thereafter.

## **Instruments**

The survey included 19 items in a Likert-type survey (see Appendix), including questions from the short form of the *Teachers' Sense of Efficacy Scale* (Tschannen-Moran & Woolfolk Hoy, 2001) along with researcher-developed questions regarding participant perceptions on the impact of the district's instructional coaching model. Using Cronbach's alpha, Tschannen-Moran and Woolfolk Hoy (2001) reported high reliability overall (.90), as well as for a separate construct: engagement efficacy (.81), instructional efficacy (.86), and management efficacy (.86). The researcher developed questions also reported high reliability using the same statistical analysis (.82).

The 19 Likert-type questions measured perceived effectiveness of instructional coaching on teacher efficacy and on general utilisation using a 5-point scale with: Nothing=1; Very little=2; Some influence=3; Quite a bit=4; A great deal=5. Part I with 12 questions concerned teacher efficacy; and Part II with 7 questions concerned general utilisation of assigned coach.

The survey also presented four open ended questions in Part III, and three demographic questions on gender, years of teaching experience, and grade-level taught, in Part IV.

## **Context**

The district provides coaching for newly hired teachers with less than three years of experience in the classroom or less than three years of experience teaching in the district. Coaches are experienced teachers at the school sites, or recently retired teachers, and are selected by site administration based on expertise to support the various mentee requested growth needs. Sometimes veteran teachers will also receive coaching if assistance is requested, or if the school site administrator suggests coaching for the teacher. In these cases, the veteran teacher is paired with other veteran teachers across the district in similar teaching roles to discuss areas of need and develop a formal plan for support.

Coaches, selected at the district level from an applicant pool of current classroom teachers with pedagogical expertise in district initiatives, are considered teachers on special assignment without an assigned student class load. These coaches are placed at one of the 14 elementary school sites to support classroom teachers and grade-level teams. Classroom teachers voluntarily make appointments with their site coach to develop units of study, lesson plans, and instructional practices through a clinical model or an interactive session. This work is done one-on-one or in grade-level teams.

Both mentors and coaches receive training on their roles and on concepts and practices for adult learning (Knowles, Holton & Swanson, 2015). Coaches also received additional training for higher-level certifications on current district initiatives which are expected to be implemented across the district. Coaches attended a formal, week-long annual training based on Knight's (2016) intensive instructional coaching institute. This training is sponsored by the district's county office of education. Coaches also receive ongoing guidance from the district; they meet monthly for ongoing professional development to help them be successful. District-level administrators, with a background in coaching, facilitate this professional learning by curating specific resources to continue building coaching capacity based on the coaches' identified needs.

## **Results**

All 368 elementary school teachers in the district were invited through email to participate in the survey. There was a moderate response rate (N=178, 48.4%) to the survey. There were 157 complete surveys or surveys sufficiently complete to be deemed partially usable. Of the 157 usable surveys, 40 participants identified as male, 116 identified as female, and one participant identified as other. Years of teaching experience ranged from 0-3 years, (n=26, 16%), 4-9 years (n=28, 18%), 10-14 years (n=36, 23%), and 15+ years (n=67, 43%). The grade span varied from PreK to grade six with the following breakdown: PreK through grade 3 (n=66), grades 4-6 (n=90), and no response (n=1).

Teachers in grades 4-6 reported greater efficacy overall, in classroom management and student engagement strategies. Table 1 displays the means by survey variables

disaggregated and grouped by teacher efficacy and grade-level with those in grades 4-6 perceiving more efficacy in classroom management ( $M=16.29$ ), student engagement strategies ( $M=15.26$ ) and overall efficacy ( $M=47.69$ ). Teachers in grades PreK-3 reported lower efficacy than the teachers in grades 4-6. For PreK-3 the means of each variable were as follows: classroom management ( $M=15.60$ ), student engagement ( $M=15.22$ ) and overall efficacy ( $M=47.08$ ).

Table 1: Descriptive statistics for perceived teacher efficacy by grade level

Teacher efficacy category and variable		N	Mean	SD
Classroom management	PreK-3rd grade	65	15.60	2.35
	4th-6th grade	89	16.29	2.51
	Totals	154	15.95	2.47
Student engagement	PreK-3rd grade	65	15.22	2.71
	4th-6th grade	89	15.26	2.74
	Totals	154	15.24	2.72
Instructional strategies	PreK-3rd grade	65	16.25	2.45
	4th-6th grade	89	16.20	2.38
	Totals	154	16.22	2.40
Overall teacher efficacy	PreK-3rd grade	63	47.08	6.71
	4th-6th grade	87	47.69	7.01
	Totals	150	47.43	6.87

Table 2: Descriptive statistics for perceived impact of instructional coach by grade level

Category of perceived impact		N	Mean	SD
Classroom management	PreK-3rd grade	66	2.83	1.12
	4th-6th grade	90	2.57	1.00
	Totals	156	2.68	1.05
Student engagement	PreK-3rd grade	66	3.50	1.10
	4th-6th grade	90	3.27	1.02
	Totals	156	3.37	1.05
Instructional strategies	PreK-3rd grade	66	3.56	1.08
	4th-6th grade	90	3.19	1.03
	Totals	156	3.35	1.06
Overall	PreK-3rd grade	66	23.27	6.76
	4th-6th grade	90	21.11	6.63
	Totals	156	22.03	6.75

Table 2 exhibits the means by category of perceived impact of instructional coaching as reported by teachers. Teachers in grades PreK-3 hold a higher perception of overall coaching impact ( $M=23.27$ ) and across three disaggregated variables: classroom management ( $M=2.83$ ), student engagement ( $M=3.50$ ), and instructional strategies ( $M=3.56$ ). The lowest mean for the perceived impact of instructional coaching was in grades 4-6: overall,  $M=21.11$ ; disaggregated by classroom management ( $M=2.57$ ); student engagement ( $M=3.27$ ); and instructional strategies ( $M=3.19$ ).

Table 3 shows the relationship between the perceived impact of instructional coaching and teacher efficacy by grade-level. A MANOVA found no significant difference in the perceived impact of instructional coaching,  $F(1,147) = 2.55$ ,  $p>.05$  and teacher efficacy,  $F(1,147) = 0.28$ ,  $p>.05$  by grade-level.

Table 3: MANOVA results for differences in perceived use of instructional coach and teacher efficacy by grade level

Dependent variable	Sum of squares	df	Mean of squares	F	p
Perceived use of instructional coach	114.57	1	114.57	2.55	.11
Perceived teacher efficacy	13.38	1	13.38	0.28	.60

Table 4: Descriptive statistics for perceived teacher efficacy coach by years of service

Teacher efficacy category and variable		N	Mean	SD
Classroom management	0-3 years of service	25	15.76	2.96
	4-9 years of service	27	15.37	1.90
	10-14 years	36	16.47	2.26
	15 or more years	67	16.10	2.52
	Totals	155	15.24	2.71
Student engagement	0-3 years of service	26	15.65	2.73
	4-9 years of service	28	14.54	2.08
	10-14 years of service	36	15.89	2.96
	15 or more years	65	15.02	2.75
	Totals	155	15.24	2.71
Instructional strategies	0-3 years of service	24	16.13	2.61
	4-9 years of service	28	15.67	2.02
	10-14 years of service	36	16.39	2.54
	15 or more years	67	16.40	2.39
	Totals	155	16.23	2.39
Overall teacher efficacy	0-3 years of service	23	47.74	8.00
	4-9 years of service	27	45.59	5.48
	10-14 years of service	36	48.75	7.20
	15 of more years	65	47.38	6.70
	Totals	151	47.44	8.85

Table 4 displays the means of the variables disaggregated by the category of perceived teacher efficacy and years of teaching. Teachers with 10-14 years of service exhibit the highest means across overall teacher efficacy ( $M=48.75$ ), classroom management

( $M=16.47$ ), and student engagement ( $M= 15.89$ ). Consequently, teachers with 4-9 years of experience display the lowest means across overall teacher efficacy ( $M=45.59$ ), classroom management ( $M=15.37$ ), student engagement ( $M=14.54$ ), and instructional strategies ( $M=15.67$ ).

Table 5 displays the means disaggregated by category of perceived impact of instructional coaching and years of teaching service. Teachers who have taught 0-3 years had the highest means in overall perceived impact of instructional coaching ( $M=25.58$ ), along with the highest means in perceived impact of instructional coaching on classroom management ( $M=3.27$ ), student engagement ( $M=3.77$ ), and instructional strategies ( $M=3.88$ ). Teachers with 15 or more years of experience show the lowest mean score in overall perceived impact of instructional coaching ( $M=20.21$ ).

Table 5: Descriptive statistics for perceived use of instructional coach by years of service

Perceived use of instructional coach category and variable		N	Mean	SD
Effectiveness of coaches support in classroom management	0-3 years of service	26	3.27	1.19
	4-9 years of service	28	2.36	.87
	10-14 years	36	2.75	.97
	15 or more years	67	2.52	1.05
	Totals	157	2.67	1.06
Effectiveness of coaches support in student engagement	0-3 years of service	26	3.77	1.07
	4-9 years of service	28	3.04	.92
	10-14 years of service	36	3.58	1.05
	15 or more years	67	3.19	1.08
	Totals	157	3.35	1.07
Effectiveness of coaches support in instructional strategies	0-3 years of service	26	3.88	.95
	4-9 years of service	28	3.04	.96
	10-14 years of service	36	3.59	1.05
	15 or more years	67	3.10	1.11
	Totals	157	3.33	1.08
Overall perceived use of instructional coach	0-3 years of service	26	25.58	6.89
	4-9 years of service	28	20.43	5.93
	10-14 years of service	35	23.74	6.42
	15 or more years	67	20.21	6.71
	Totals	156	21.94	6.83

Table 6 explains the effects of years of service on the perceived impact of instructional coaching and teacher efficacy. A MANOVA was conducted and the results were significant,  $F(3,146) = 5.30, p < .05$ . Due to non-equal group sizes, a Scheffe post-hoc was conducted. The results indicate that teachers with 0-3 years of service had the highest perceived impact of instructional coaching on their efficacy and those teachers with 15 or more years of service with the lowest perceived impact of instructional coaching on teacher efficacy.



Table 6: MANOVA results for differences in perceived use of instructional coach and teacher efficacy by years of teaching service

Dependent variable	Sum of squares	df	Mean of squares	F	p
Perceived use of instructional coach	682.06	3	227.35	5.30	.00*
Perceived teacher efficacy	156.45	3	52.15	1.11	.35

\* Denotes significance at .05 alpha level

### Qualitative findings

Four semi-structured, open-ended questions asked participants to describe the impact instructional coaching had on classroom management, student engagement, and instruction (Appendix). The results, like the quantitative results, highlighted mixed perceptions (Table 7).

Table 7: Major themes of perceived impact of instructional coaching

Major themes	Example statements
Impact on student engagement/instruction	More open to try new strategies I am more apt to try something new because of [coaching] support. ...feel more confident in trying new strategies with my students because of [coaching] support.
	Demonstrates and provides strategies to incorporate into teaching ...I am more willing to try new strategies because I know I have [coaching] to help me through the learning curve. ...[coaching] gives me time to watch demonstration lessons and... how to better use our materials. [Coaching] provides me with strategies and resources to meet my student needs.
	Little to no impact ...with [coaching] I watched modelled engagement and instructional strategies... I try to incorporate those into my teaching and it makes a difference. There has not really been an influence on my teaching with [coaching].
	I usually rely on my grade level... [because coaching] hasn't impacted me in [student engagement or instruction]. ...I don't feel as though [coaching] is impacting or helping us to improve our [engagement or instructional] strategies.
Impact on classroom management	Modelling of meaningful strategies to use immediately [My coach] models staying calm and in charge.... which I need to work on and can do the next day... [My coach] models lessons in my classroom for support... I can use it what I learn right away. [My coach] is willing to come in and model effective ways to work will challenging behaviours... I can practise using what I learn that day.

Higher engagement strategies reduce behaviour	<p>...engagement strategies I get from [coaching] help keep behaviours [in my class] to a minimum.</p> <p>I don't have an issue with behaviour because of engagement strategies I learned through [coaching].</p> <p>Since [coaching], I use more engagement strategies and [now] I don't have behaviour problems.</p>
Not a support	<p>I usually ask the psychologist... I don't rely on [coaching].</p> <p>I am a veteran teacher... I don't need that kind of [coaching] help.</p> <p>...I refer to admin for help with any behaviour challenges – not [coaching].</p>

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For student engagement and instruction, teachers were overall open to trying new strategies and felt the coach demonstrated and provided meaningful strategies that could be easily incorporated into daily teaching. On the other hand, others noted coaches had little to no influence on their ability to engage students or use new instructional strategies.

Classroom management findings indicated a similar pattern, where many teachers indicated that coaches modelled critical strategies to reduce behaviour concerns. Additionally, the teachers felt they could now implement engagement strategies to reduce problem behaviours because of what they learned through instructional coaching. However, many other teachers did not believe instructional coaching provided helpful classroom supports.

## **Discussion and conclusions**

The purpose of this study was to determine if the instructional coaching model is effective in improving teacher efficacy amongst elementary school teachers in a diverse school district. The study was conducted to answer specific questions on teacher efficacy, use and perceived impact of instructional coaching, and the relationship between these constructs to understand how the model can support teacher development and school improvement.

### **Some relationship between perceived impact of instructional coaching and overall teacher efficacy**

The first research question considered the variables of overall teacher efficacy and the individual constructs of classroom management, student engagement, and instruction. A weak relationship ( $p=.21$ ) was found between the perceived impact of instructional coaching on overall teacher efficacy. When looking at the findings for trends by grade-levels, respondents in PreK-3 indicated less teacher efficacy overall and across sub-constructs as compared to their counterparts in grades 4-6. Unsurprisingly, the PreK-3 group also perceived that instructional coaching had more of an impact on their efficacy than the teachers in grades 4-6 perceived. While not significant, the trend does highlight

that the more needs a teacher has, the more impact the coaching process has on the teachers' sense of efficacy.

Conversely, if the teacher feels relatively confident in the areas of coaching focus, instructional coaching is perceived as having less impact. This is connected somewhat to the outcomes of work by Devine, et al. (2013), Shields and Murray (2017), and Whipp and Pengelley (2017). Coaching is most effective when coachees sense goals are well-defined and believe it enhances professional learning in a transformational way. This was more the case with the PreK-3 teachers who had more to gain from the instructional coaching experience.

The qualitative questions provided a deeper understanding of the quantitative results. Themes indicated that either, (1) coaching was perceived as beneficial in supporting efficacy by providing strategies that could be used with immediacy; or, (2) coaching was perceived to have little impact on coaches' efficacy in the classroom. Moreover, those who indicated coaching had little impact specifically noted using other available resources instead of the coach to help them improve their instructional capacity. When looking for solutions to specific classroom situations in instruction, engagement and behaviour, the participants noted consulting their grade-level team members, school psychologists, and site administration instead.

#### **Significant relationship between perceived impact of instructional coaching and overall teacher efficacy by years of service**

A significant relationship was found in regard to years of service, coaching, and teacher efficacy. Novice teachers (0-3 years of service) perceived a significantly higher impact of instructional coaching on their efficacy in the classroom than did veteran teachers (15+ years of service). Interestingly, these two groups were not identified as the most or least efficacious in their teaching contexts. The group with the highest overall teacher efficacy was teachers with 10-14 years of service and the lowest was found among teachers with 4-9 years of service in the profession. Though the veteran and novice teacher groups fell between these groups in teacher efficacy, the perception of the impact of instructional coaching on teacher efficacy did not follow the same trend. Veteran teachers did not have the same level of efficacy as their 10-14 years of service counterparts, and the perception of impact on instructional coaching in supporting their late-career needs was not as favourable. A set of qualitative themes mirrored this result, indicating feelings that instructional coaching had little to no impact on instruction, engagement, or behaviour strategies in the classroom. One respondent specifically noted, "I am a veteran teacher... I don't need that kind of [coaching] help."

Novice teachers, on the other hand, felt instructional coaching had a significant positive impact on their efficacy in instruction, engagement, and classroom management, as compared to the veteran teachers even though they did not feel as efficacious overall. Recognising the qualitative findings did not discuss novice teachers exactly, the findings did highlight that the strategies modelled during instructional coaching had an immediate and meaningful impact on many teachers. As explained by De Jong and Campoli (2018),

this type of support is critical for the success and retention of those new to the classroom. One teacher shared, “[My coach] is willing to come in and model effective ways to work with challenging behaviours... I can practise using what I learn that day.” Another explained, “Since [coaching], I use more engagement strategies and [now] I don’t have behaviour problems.”

The overall findings by teachers’ years of service, instructional coaching, and teacher efficacy reflect findings in other studies acknowledging the challenge of coaching to support the needs of novice teachers while positively developing veteran teachers’ professional growth (Woolfolk Hoy & Spero, 2005; Castanheira, 2016; Shields & Murray, 2017). Moreover, instructional coaching experts recognise the power differentiated coaching models have on the overall transformational success of the work in schools (Marzano, Simms, Roy & Heflebower, 2012; Devine et al., 2013; Aguilar, 2013; Gallant & Gilham, 2014).

### **Scholarly significance of the study**

The purpose of the study was to identify a relationship between the perceived use of instructional coaching and the effectiveness of coaching on improving teacher efficacy overall, and by the individual constructs of grade-level and years of service. Trend data showed that grade-levels with lower teacher efficacy, in this case, PreK-3, perceived coaching as having more of an impact than those with relatively higher teacher efficacy in the first place. Most notable for this study were the findings and conclusions by teacher years of service. This study again confirmed the power coaching has for teacher instructional improvements who are willing participants in the professional development process (Kraft, Blazar & Hogan, 2018) which is reflected of the novice teacher participants in this study. Findings from this study further indicate that veteran teachers need something different to make coaching meaningful. Research into what is needed to make this a reality for veteran teachers is the next step in growing this body of work. To cultivate transformational professional learning for late-career teachers through coaching will not only increase student learning, but once again add value to the process across multiple contexts for veteran teachers.

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## Appendix: Survey instrument

### Perceived effectiveness of instructional coaching on teacher efficacy

Part I: The following questions were developed from the *Teachers' Sense of Efficacy Scale* (Tschannen-Moran & Woolfolk Hoy, 2001) using *Qualtrics* to help the researchers gain a better understanding of the kinds of things that create difficulties for teachers in their classroom activities. Please indicate your perception about each of the statements below.

Q1 How much can you do to control disruptive behavior in the classroom?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 How much can you do to motivate students who show low interest in school work?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3 How much can you do to get students to believe they can do well in school work?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 How much can you do to help your students value learning?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5 To what extent can you craft rigorous questions for our students?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6 How much can you do to get students to follow classroom rules?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7 How much can you do to calm a student who is disruptive or noisy?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 How well can you establish a classroom management system with each group of students?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9 How much can you use a variety of assessment strategies?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10 To what extent can you provide an alternative explanation or example when students are confused?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11 How much can you assist families in helping their children do well in school?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q12 How well can you implement alternative strategies in your classroom?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Part II: The following questions were designed by the researcher to gain a better understanding of how instructional coaches are utilized. Please indicate your perception about each of the statements below.

Q13 To what extent do you use your coach?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14 In your opinion, how effective is your coach in supporting your areas of professional growth and development?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q15 How readily available is your coach to assist you if you have questions about how to teach a new topic or skill?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q16 How effective is your coach in supporting your areas of instructional need in regards to student engagement?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q17 How effective is your coach in supporting your areas of instructional need in regards to instructional strategies?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q18 How effective is your coach in supporting your areas of instructional need in regards to classroom management strategies?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q19 To what extent do you believe your teaching has been influenced by your instructional coach?

Nothing (1)	Very little (2)	Some influence (3)	Quite a bit (4)	A great deal (5)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part III: The following questions were designed by the researcher to gain a better understanding of how instructional coaches influence the use of student engagement strategies, classroom management strategies and instructional strategies in classrooms. Please respond by stating your perception about each below.

Q20 Describe how your coach makes him/herself available to assist you at your site.  
[open ended response box]

Q21 Describe how your coach has influenced your teaching practices in regards to student engagement.  
[open ended response box]

Q22 Describe how your coach has influenced your teaching practices in regards to classroom management.  
[open ended response box]

Q23 Describe how your coach has influenced your teaching practices in regards to instructional strategies.  
[open ended response box]

Part IV: The following questions help the researcher gain an understanding of demographics. Please indicate your response.

Q24 What is your gender?  
Male (1) Female (2) Other (3)

Q25 Current grade span? If you teach a combo or SPED class please select the grade in which most of your students are enrolled.  
PreK-3rd (1) 4th-6th (2)

Q26 How many years of teaching experience do you have?  
0-3 years (1) 4-9 years (2) 10-14 years (3) 15 or more years (4)

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