

Instructional Coaching and Learning of Instructional Practices

A Study of the Perceptions of Coaches and Teachers

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KEY IMPLICATIONS

1. The professional development of teachers in Singapore often assumes the form of “one-off workshops”, seminars and conferences which provide teachers with few opportunities to apply what they have learnt (Teemant, et al., 2011). The findings of this study indicate that instructional coaching may present a better alternative to former professional development “programs”, ensuring that teachers put to practice what they learn.
2. Since instructional coaching involves the use of domain-specific strategies to enhance instructional practices, it is a form of teacher development that has the potential to become a mainstay within schools. Already, the situation in schools is such that Professional Learning Communities (PLCs) are usually organised along departmental lines. Instructional coaching can be a centrepiece within these department-based PLCs.

BACKGROUND

It is widely agreed that the most effective effort for improving quality instruction is one that is collaborative, sustained, embedded in real-life learning contexts, and supported by specialists and peers (Elmore, 2002). In addition, it is one that encourages observation and engagement in professional dialogue and reflection (Supovitz,

2001). Therefore, there has been a growing interest in coaching, “a form of inquiry-based learning characterised by collaboration between individual, or groups of, teachers and more accomplished peers” (Poglinco et al., 2003, p. 1), which “involves professional, ongoing classroom modelling, supportive critiques of practice, and specific observations” (Poglinco et al., 2003, p.1).

Out of the several approaches to coaching—peer coaching, cognitive coaching, instructional coaching—instructional coaching, in particular, is invaluable in assisting teachers in translating best practices into improved classroom instruction and improving student learning (Knight, 2006). This study adopts Knight’s (2008) comprehensive definition emphasising collaboration, as the researchers investigate the perception, reception and impact of instructional coaching on teachers in a Singapore mathematics classroom.

FOCUS OF STUDY

The P.I. took up the role of coaching 8 mathematics teachers in a Singapore neighbourhood school. The context of the study is a unit on “Solving Quadratic Equations by Completing the Square” for Secondary 3 Normal Academic (NA) students. The unit was chosen because it lends well to the two practices of solving a problem and developing a formula/method.

In the initial phases of preparing the instructional materials for students, the teachers were encouraged to present the worksheets that they had designed, in order to receive coaching even at the formulation stage. Most of the time spent during the pre-unit discussions with teachers was devoted to discussing suitability of examples used and how they may be sequenced in order to help students grasp the underlying concepts and develop fluency with the method. In particular, the coach listened to the teachers as they wondered aloud and asked how students may be convinced of the “forming a square” method if they had been previously accustomed to the factorisation method. As such, the worksheets were redesigned with an intended flow that would facilitate and improve both the teachers’ instructional practices as well as students’ learning.

KEY FINDINGS

(1) What are the teachers’ perceptions of instructional coaching in the context of learning the Concrete-Pictorial-Abstract (CPA) approach to teaching Completing the Square (CS)?

For the purpose of this brief report, we present the results of one teacher: Teacher E.

Initially, Teacher E voiced concern that the technique of CS even with the alternative method which used concrete manipulatives would be challenging to her NA students. However, after receiving instructional coaching, E was appreciative of the coach for his help and support because she discovered that successful solving of the quadratic equation was not based on rote memorisation of a series of unrelated steps. Her confidence in teaching the method grew when she observed how well her NA students picked it up to work out their tasks.

E expressed that it was through the instructional coaching process that she experienced a mindset shift regarding “efficient” teaching. Her increasing openness to the new pedagogical method utilising the CPA approach enabled her to allow students more time for active learning and discovery, as opposed to the past where she would insist on her own methods in view of the limited time on her hands.

In addition, the coaching process also provided E and other teachers with the opportunity to

learn how to formulate effective instructional materials for their students. E reflected that the support given by the coach in the crafting of the worksheets was very useful as she was able to learn how to scaffold her students’ thinking and better anticipate learning patterns.

(2) What is the impact of instructional coaching on teachers’ way of teaching CS?

E was observed to have shifted from her usual style of teaching. Compared to her usual practice of “spoon-feeding” the students and rote memorisation, she gave her students more time to solve the problems while adhering to the chronological sequence of the questions in the worksheets. In the meantime, she assisted them in discovering and developing a method for CS. She acknowledged that she adopted the new method after hearing the coach’s point of view. Evidence of the instructional coaching taking effect in moulding E’s use of language in the classroom was also observed in how she adopted the language used by the coaches consistently throughout her lessons.

The results showed that the teacher was able to utilise suitable instructional practices in her classroom, an indication that instructional coaching is effective in helping teachers improve the quality of instructional practices (Knight, 2009).

SIGNIFICANCE OF FINDINGS

Currently, Singapore schools look to mentoring rather than coaching to provide teachers—in particular newly-qualified teachers—with support and guidance as a result of the introduction of the Structured Mentoring Programme in 2006.

However, coaching has a narrower and more specific focus than mentoring and is, hence, probably more manageable. Schools may want to consider looking to coaching instead of mentoring to help teachers, particularly since research has shown that coaching is effective in helping teachers improve the quality of instructional practices (Knight, 2009).

RESEARCH DESIGN

This report is primarily a case study of Teacher E’s experience—as both participant of the discussion and teacher of her class—of the instructional coaching process. E was the

resident teacher of one of the two Secondary 3 Normal Academic classes. Her full involvement—from the beginning discussions, through all her lessons, including the interviews and post-unit discussions—were video recorded. With this data, her perceptions of the instructional coaching process and the impact it made on her classroom instructional practices were analysed. The case study was supplemented—where relevant themes are concerned—by similar sentiments expressed by other teachers.

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