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**Alternative Support for Teachers In Challenging Economic
Times:**

The Use of Virtual Coaching

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Abstract

This qualitative study explored the use of virtual literacy coaching by examining 18 coaching sessions between a university-based literacy coach and a first-grade reading interventionist using Above® Connect, a web-based collaborative tool. The application provided a virtual meeting space and through the use of video pods the teacher and coach had synchronous audio and video communication. Each coaching session lasted approximately one hour and included a pre-observation discussion, a 30-minute individualized lesson with a struggling reader, and a debriefing conversation. Data, including transcriptions of the coaching sessions, interviews with participants, field notes, and journal entries were analyzed using the constant-comparative method. Categories that reflected patterns in the data were collapsed into themes, which highlighted the influence of the virtual environment on the relationship between coach and teacher and their coaching interactions.

Introduction

Literacy coaching as a form of ongoing embedded professional development has been recommended as a way to support teacher efficacy for quite sometime (Bean, 2004; Darling-Hammond & McLaughlin, 1995; Showers & Joyce, 1996). In the current economic crisis, as school districts continue to make cuts, the repetitive mantra seems to be, “we must do more with less.” Unfortunately in many cases this means eliminating FTEs and some systems, which once allotted for a literacy coach in each elementary school, have now reduced the allotment to one coach for multiple schools.

As budgets tighten and positions are cut, considering alternative ways for literacy coaches to continue to collaborate with teachers is much needed. The use of technology is currently being explored as means to this end. Specific to this study is the use of technology for videoconferencing using web-based collaborative tools. While there has been much research on the use of technology with in-service teachers, a review of the literature yielded only a few studies that focused on remote literacy coaching. Pianta, Mashburn, Downer, Hamre, & Justice (2008), in a study involving web-based coaching with an expert consultant, revealed positive effects on pre-k teachers’ interactions with students. The study involved a two year controlled evaluation trial in which one condition received access to on-demand clips of exemplar teaching and another received the same access plus web-mediated consultation. Each teacher in the second condition was assigned to a virtual consultant. Every two weeks the teachers submitted a 30-minute tape to their consultant, which ultimately served as the basis for a video-chat about the teacher and child interactions. The study provided preliminary support for web-mediated coaching. A similar study examined the effects of a semester long professional development intervention involving the expert coaching of Head Start teachers (Powell,

Diamond, Burchinal, & Koehler, 2010). The randomized controlled trial revealed no differential effects of remote literacy coaching compared with traditional face-to-face coaching. While both these studies utilized web-mediated coaching, neither study involved the remote observation of live teaching. Rock et al. (2012) did, however, examine web coaching that centered on a live lesson. Using bug-in-ear technology, university faculty remotely coached pre-service teachers using a Bluetooth earpiece and a webcam. Results from this study showed that the teachers' instructional effectiveness improved.

As existing research transfers to practice, understanding that there is more to connecting teachers remotely than just providing the necessary hardware and software is crucial. Cochrane (1996) cautioned, "it is naïve to assume that merely linking distant groups or individuals at different locations creates an effective learning environment" (p. 320). Despite the rapid changes in technology, this statement still holds true today. The emerging research on virtual coaching coupled with the aforementioned caution, speaks to the need for continued investigation into this promising practice. Therefore, the question guiding this inquiry was, "What are the influences of the virtual environment on the relationship between teacher and coach and their interactions?"

Current Study

Participants

The study involved a school in a mid-sized city in South Carolina. The school had never made Adequate Yearly Progress and was in restructuring. The study specifically examined the coaching of a first grade reading interventionist using computer-mediated communication. The participants were purposefully selected and included a literacy coach who is a clinical faculty member at a major research university (referred to as the university literacy coach - ULC). The ULC met the five requirements set forth by the International Reading Association outlining what literacy coaches must know and be able to do. This includes successful teaching experience, a deep understanding of literacy processing theory, experience working with teachers, experience as a skillful presenter, and experience observing and providing feedback to teachers (IRA, 2004, 2010). Other participants included the first-grade reading interventionist who delivered targeted assistance to the lowest-achieving children through one-to-one instruction, the school-based literacy coach (SLC) who provided computer assistance to the teacher, and the researcher.

Technology

Initially Skype had been selected for the coaching sessions, but after meeting with the school district technology director, and discussing the district's firewall and network security, it appeared this application could present challenges. While the technology director was willing to provide access by disabling the firewall, there was concern that connecting via Skype would present reoccurring problems. Ultimately, Adobe® Connect the university supported web-based conferencing application was selected for the coaching sessions. During the study, the teacher was supplied with an IBM laptop and Logitech web-cam. The ULC connected with the teacher from the university using an iMac desktop with an integrated webcam.

Data Sources and Collection

In addition to its accessibility, Adobe Connect was selected because of its ability to record and archive the coaching sessions. The application provided a virtual meeting space and through the use of video pods the coach and teacher held 18 sessions that provided synchronous audio and video communication. Each session lasted approximately one hour and began with a pre-observation discussion that outlined the competencies of the child and focal areas for improvement in both reading and writing. Next, the teacher and child engaged in a 30-minute individualized lesson. During the lesson, the ULC observed, prompted and supported the teacher, and took notes on the teacher-child interactions. Following the lesson, the ULC and the teacher participated in a debriefing that addressed student and teacher learning. During the study a total of three different children were observed.

Data collection began in September 2010 and initially involved meetings with the district technology department and basic training with the school-based literacy coach (SLC) on the use of Adobe Connect. The SLC was present during all sessions to provide technological support to the teacher as well as to observe the coaching between the ULC and the teacher. The recorded coaching sessions yielded a total of 282 transcribed pages. While the sessions were being conducted, observational field notes were taken, which included theoretical and methodological notes referring to current and future data collection (Richardson, 1998). Additionally, structured and unstructured interviews with the participants were conducted (Spradley, 1979). The interviews, held in person and via email, included questions about the similarities and differences between coaching face-to-face and in a virtual setting. All interviews were transcribed and notes taken during the interviews were integrated into the transcriptions. A reflexive journal was also kept as a means of establishing trustworthiness and informal and formal member checks ensured the findings were credible (Lincoln & Guba, 1985).

Data Analysis

Data were analyzed using the constant-comparative method (Glaser & Strauss, 1967). The categories that emerged reflected the regularities and patterns that appeared from the data and could be supported with direct quotes or observations (Strauss & Corbin 1990). Once data collection was complete, the relationships within and between categories were examined to comprehensively understand the implications of the inquiry and these categories were then collapsed into overarching themes.

Findings

Technical Difficulties

Verbal communication.

The connection between the school and the university was not problem-free and shared bandwidth caused occasional delays. While the coach was use to this, as she had experienced difficulties and delays with other distance learning applications, the teacher was not. Initially this effected the conversation as the coach and teacher would often speak at the same time. This caused hesitancy on the teacher's part that resulted in clipped yes or no replies (Field Notes/FN, 12/9/10).

The style of coaching employed in the sessions is what Puig and Froelich (2011) refer to as *conferring, observing, and debriefing*. It is this type of coaching they contend

has the most potential for shifts in teaching and learning, but is also the most likely to backfire. The key component to this high level of coaching is a “strong sense of trust” (p. 72) with coach and teacher “striking a balance between interactive and intraactive” understanding (p.73). The audio delay seemed to inhibit the interactive nature of the teacher-coach exchange that is typically characteristic of the conferring and debriefing discussions. After several sessions, however, the teacher and coach adjusted to the delay, timing their entry into the dialogic conversation accordingly (FN, 2/25/11). When the teacher was questioned if the technical difficulties detracted from the coaching conversation she replied, “Not really, once I got use to the slight delay it was fine” (Teacher Interview/T-I, 7/15/11).

Non-verbal communication.

The technical difficulties also effected the non-verbal communication between teacher and coach. When the screen would freeze, but the audio would continue, they could hear one another but actions and gestures that characterize non-verbal communication were lost (FN, 2/10/11). According to Schön (1987) the interactions between teacher and coach can achieve a state of what he referred to as “communicative grace” (p. 100). When this occurs the teacher and coach are able to “use shorthand in word and gesture to convey ideas that to an outsider seem complex or obscure” (p. 100). Initially reaching this state seemed impossible as both word and gesture were impacted by the delay.

Issues surrounding non-verbal communication and videoconferencing formats have been explored in the literature and surfaced in the data. Similar to the adjustments made by the teacher and coach in their verbal communication, they also had to learn to compensate for the interruptions in non-verbal communication (Reflexive Journal/RJ, 3/24/11). Early computer system designers theorized that the loss or partial loss of non-verbal communication from computer-mediated connections would negatively impact the interaction of the users, but these ideas have changed and it is now recognized that users adapt and adjust for deficiencies in non-verbal communication (Burgoon, et al., 2002). These adaptations and adjustments were made in this case and teacher and coach eventually reached a state of communicative grace despite the challenges of the virtual environment.

A Trusting Relationship

The audio and video delay could have had detrimental effects. The teacher and coach did not give up, however, and this was due in part to their existing relationship. The teacher and coach had known each other for seven years. The coach had provided professional development for teachers in this particular school district and had also coached the teacher in a traditional face-to-face setting. The relationship between teacher and coach is important in a traditional coaching session (Puig & Froelich, 2011; Toll, 2006) and appears to be doubly important in a virtual setting. In this study, not only did the relationship enable dialogic conversation, but it also helped with the occasional awkwardness caused by the audio and video delay. The coach stated, “ I think the fact that we know each other and were already comfortable working together helped with this (the delay)” (ULC-I, 7/15/11). The importance of the established relationship was echoed by the teacher, “I really believe that the prior relationship is a big part of this technology” (T-I, 7/15/11).

The Shared Experience

In addition to the teacher/coach relationship assisting with the technology, the shared experience of the 30-minute lesson provided added support as well. By centering the dialogue on the lesson as Schön (1987) suggested, the context became shared despite the fact the participants were not sharing the same physical space. Placing emphasis on the lesson allowed for collaboration that was embedded within the teacher's actual work. When comparing the virtual coaching session to other professional development that has been delivered remotely by the university, the teacher commented about the personal nature of the virtual coaching. "I was so happy to get some feedback from lessons I had just taught. The virtual training classes are great (referring to another type of remote professional development offered), but somewhat generic. With the coaching, it's all about me, ☺. Seriously, I got specific feedback for the students I was working with. I found that very helpful" (T-I, 2/12/11). In the virtual training sessions (the other virtual professional development to which the teacher refers), some 200 teachers synchronously view a 90-minute session on a topic related to struggling readers and writers. While there is conversation at certain points among the teachers viewing the virtual training sessions at their remote locations, there is no collaboration around a live lesson nor are the sessions specific to individual teachers. According to the teacher in this study, the embedded nature of the virtual coaching in her work with students was more beneficial than the broader training opportunities provided.

Demonstration

While the teacher/coach relationship supported certain aspects of the virtual environment, the sheer fact that they were in different locations presented challenges. In a traditional face-to-face coaching session the coach often shares suggestions with the teacher by providing a demonstration with the student. The coach commented on this limitation, "You can't make suggestions to the teacher during the actual teaching of the student. The biggest difference in coaching in person versus virtually is the ability to provide a demonstration with the student" (ULC I, 2/21/11). Initially the coach felt the technology was limiting in this way and was concerned knowing the teacher has a "heightened potential for efficacy" (Schön, 1987, p. 103) if suggestions are made during the actual teaching.

This realization forced the coach to rethink her virtual techniques (RJ, 1/23/11). Demonstration had always helped the coach shift teachers' understandings about how to support struggling readers and writers, but in the virtual setting this was no longer an option. Virtual coaching meant she had to verbalize what she had traditionally shown. This change also required more divided and "operative attention" (p. 103) on the teacher's part as she had to listen with a keen ear in order to transform the verbal suggestions into action. Because the coach was unable to jump in and show the teacher, she had to think more deeply about how to support the teacher's understandings in light of the technology (FN, 4/12/11).

A Shared Text.

In the absence of demonstration, the literacy coach had to explicitly verbalize her thinking and lead the teacher to understandings in a new way. One source of support was the shared professional text used by both teacher and coach. This text, *Literacy Lessons Designed for Individuals* (Clay, 2005), highlights teaching procedures for struggling

readers and writers. In traditional face-to-face coaching sessions, the coach commented that she used the text but that the demonstration of the technique was what she relied upon most (ULC-I, 7/15/11). In the virtual setting, the book became more instrumental. As the sessions progressed, and the coach prompted the teacher to take action through verbal suggestions, she would simultaneously take notes about her recommendations (FN, 4/27/11). Following the 30-minute lesson, the teacher and coach would refer to the book for a deeper understanding of the theory behind the recommended practice. Sharing a common professional reference provide an additional connection for the teacher and coach in the virtual environment.

Conclusion

The ability to link teachers and coaches in a virtual space creates new possibilities for supporting teachers that are certainly not trouble-free, but do provide opportunities to think deeply about teaching and learning. Puig and Froelich (2011) state the foundation of literacy coaching is built on the trusting relationships between colleagues. In a traditional face-to-face setting teacher and coach are physically present as this relationship is negotiated. Included in this negotiation is “understanding and using a spoken language system and a repertoire of accompanying paralinguistic and nonverbal behaviors; knowledge of social context, roles, and activities within which conversations occur; and the capacity to produce as well as interpret appropriate conversational behaviors” (Florio-Ruane & Morrell, 2004, p. 48). When the conversations between teacher and coach are mediated by technology there is a renegotiation of the traditional teacher/coach dialogue and ultimately of their relationship. As evidenced in this study the spoken language system and paralinguistic features such as body language, gestures, facial expressions, and tone and pitch are sometimes compromised in the virtual setting by the audio and video delay. The underlying relationship between teacher and coach in this study allowed them to adapt and adjust to these limitations. The coach elaborated on this in an interview, “I think the fact that we know each other and were already comfortable working together helped the use of this technology. We have a collaborative relationship” (ULC-I, 7/15/11). The teacher echoed this sentiment, “Having known the coach for the past few years, I was very comfortable working with her. I missed the person to person contact, but having a prior relationship with the coach made it work” (T-I, 7/15/11).

As school districts continue to experience budgetary cuts, it is important to explore alternative ways to support teachers. The findings identified in this study underscore the differences between face-to-face and virtual coaching. Understanding and accepting the limitations of the technology and recognizing the importance of the teacher/coach relationship could provide a starting point for school districts interested in computer-mediated communication. During the duration of this study, connecting remotely saved an estimated \$750 in travel expenses and 45 hours of time. These savings together with an awareness of the virtual context and its influence on negotiated communication could help make this a viable option for districts that are facing financial shortfalls.

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