

# Enhancing preschool-kindergarten educator implementation of interactive reading instruction through vertical teaming: Exploring collaborative enquiry

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## Abstract

Using data from a 2-year empirical project in an urban school within the United States, this article describes how educators of preschool, transitional-kindergarten and kindergarten (PreK-TK-K) altered perceptions and practices as a result of participating in a purposefully crafted professional learning community using collaborative enquiry. Emergent thematic findings highlight shifts in educator understanding and application of interactive reading practice and alignment across classrooms of young learners. This vertical professional learning community provided space and time where educators constructed meaning through collaborative enquiry, video observations and reflection, which informed educator thinking and enriched student interaction for literacy learning.

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**Introduction**

School district leadership across the United States encourages their principals to build a positive culture of learning for both students and teachers. One way in which principals meet this initiative involves forming Professional Learning Communities (PLCs) to support teacher professional development. This article shares educator perspectives while focusing on interactive reading within a vertical PLC across preschool, transitional-kindergarten and kindergarten (PreK-TK-K) grade levels. To further understand this approach the authors describe the theoretical underpinnings of interactive reading and early learning, the vertical PLC project using collaborative enquiry conversations, and the major themes that emerged from the qualitative data along with the implications, conclusions and prospects for future research.

**Literature review***Interactive reading*

Reading is a core area that educators teach in the elementary years and has been the focus of much research. For young children, their school-based reading experiences often first come in the form of listening to stories and talking about the pictures. They then use oral language to build graphophonic knowledge of letter sounds, letter names and eventually read the words on the page. It is crucial to engage young learners when reading. Interactive reading is a specific teaching technique that promotes child interest and social engagement while also allowing teachers to highlight different aspects of the literacy experience (Fisher et al., 2004; Wadsworth, 2008; Wiseman, 2011). Moreover, interactive reading provides a scaffold for teachers to build the comprehension skills of students, engage students in learning and develop a supportive community of readers. Research has also found that interactive reading has been highly beneficial for students with learning disabilities (Justice et al., 2017), across different academic content such as science (Berry et al., 2013; Oliveira, 2015), with older elementary and adolescent students (Marchessault and

Larwin, 2014, Tracey et al., 2011), as well as with culturally and linguistically diverse learners (Lin, 2014; Lohfink, 2014). While extensive research has been compiled on the benefits of interactive reading (Elleman and Compton, 2017; Hoggan and Strong, 1994; Jacobs, 2016; Justice et al., 2017; Wadsworth, 2008), other studies have investigated educators' implementation of interactive reading (Fisher et al., 2004; Justice et al., 2017; Lane and Wright, 2007; Wadsworth, 2008; Wiseman, 2011). Nonetheless, there is sparse information on the use of collaborative enquiry within a vertical PLC and the influence on teachers' understanding of interactive reading including their instructional practice with early learners.

### *Early learning continuum*

In the past few years, American principals have taken on additional administrative roles for preschool programmes located in elementary schools due to the shifts in educational policies and funding of early learning. According to a survey conducted by the National Association of Elementary School Principals (NAESP, 2014), 60 per cent of principals were responsible for early childhood programmes including 3- and 4-year-old children on elementary campuses.

Early child development research has examined systematic and comprehensive models that support educational practice in a collaborative effort to improve outcomes for students. Reynolds, Magnuson and Ou (2010) reported that the type of instructional practices utilized by both preschool and elementary teachers impacted on children's early learning in preschool to third grade (PreK-3). Childhood advocates recognize that this is a unique developmental period in which children and families are best served by an integrated, seamless continuum approach built on developmentally appropriate practices (Reynolds and Temple, 2008). In addition, PreK-3 programmes with purposefully aligned curricula and instructional strategies provide more continuity and better organization of services for students, as well as enhanced school-family partnerships (Reynolds et al., 2010; Reynolds and Temple, 2008). Moreover, Reynolds and Temple (2008) further advocated that an on going collaborative educational model across the first 10 years of a student's life provides the most optimal support for learning and development.

### *Professional learning communities*

School districts are constantly exploring new ways of improving student achievement. Principals are responsible for developing formative plans that account for growth in teacher and student performance. School districts

encourage their leaders to develop a culture of learning and collaboration among teachers and students, often achieved by utilizing professional learning communities (PLCs). Hord and Sommers (2008) described PLCs as professionals coming together as a community to learn. Educational experts advocate the creation of a collaborative school culture that enhances teacher practices and ultimately improves student achievement (DuFour et al., 2009; Vescio et al., 2008; Waldron and McLeskey, 2010). Dufour et al. (2009) further noted that PLCs provide opportunities for educators to engage in conversation during a repeated process of gathering evidence around student learning, develop ideas to build on that learning, challenge assumptions, explore new ideas, analyze practised ideas and apply new knowledge to future practices.

Principals traditionally design horizontal PLCs, meaning that the group of educators are from the same grade and/or discipline such as a 4th grade PLC or Special Education PLC (Bertrand et al., 2006). However, vertical teaming is an alternate design principals may choose to utilize for PLCs. Vertical grouping refers to educators from sequential grades meeting with a common purpose to exchange ideas and focus on academic advancement (Gilmer, 2010). Moreover, Dufour et al. (2009) identified that the inclusion of external stakeholder perspectives (e.g. researchers, content experts, community education advocates etc.) is important in PLCs because divergent thinking encourages teachers to build new knowledge and deepen pedagogical competency, later actualized in classrooms.

### *Collaborative enquiry*

Educational researchers (Vescio et al., 2008; Waldron and McLeskey, 2010) identified that successful PLCs included *collaborative enquiry* as a generative conversational process for teachers to intentionally explore new ideas and examine current practice as well as student learning. Collaborative enquiry incorporates Vygotsky's theory of cognitive development (Vygotsky, 1978) and dialogic learning science (Wegerif, 2017), which supports a conversational format encouraging higher-level thinking, cognitive flexibility and co-construction of ideas from multiple perspectives. Moreover, Butler and Schnellert (2012) found that the use of collaborative enquiry in professional development yielded meaningful changes in teacher beliefs and practices in the classroom. While there has been widespread research on the benefits of PLCs, few studies describe how principals lead PLCs to shift educators' thinking to build greater capacity of understanding theoretical underpinnings and application in classrooms for effective instruction.

## **Purpose**

The purpose of this study was to explore perceptions of a unique group of educators utilizing collaborative enquiry within a vertical PLC focused on interactive reading practices for preschool, transitional-kindergarten and kindergarten students. Collaborative enquiry can be an effective conversational process for educators to learn new ways of thinking within vertical PLCs (Vescio et al., 2008; Waldron and McLeskey, 2010; Wegerif, 2017). However, studies are warranted to inform principals about how conversational enquiry with PreK-TK-K educators' impacts on the understanding and application of interactive reading.

## **Methods**

### *Research framework*

Authors of the current project utilized collaborative enquiry to engage in building a shared community of educators through the use of a *plan-do-study-act* cycle (Best and Dunlap, 2014; Tichnor-Wagner et al., 2017; Vaszauskas, 2001). This model involves a cyclical structure, which provided a framework for team members to problem-solve through self-reflection, identify complications and brainstorm possible solutions. This qualitative approach encouraged educator participation by way of posing questions, comparing ideas, debating pedagogy, and reflecting from multiple perspectives to internalize and improve practices across PreK-TK-K classrooms.

### *Research context*

ABC Elementary is a large urban 100per cent Title I elementary school, meaning it receives a federally funded supplement due to serving children from low-income families. It serves children from ages 0 – 11 with diversified programming including an infant toddler programme, as well as state and Head Start preschool programmes within a transitional-kindergarten to fifth grade (TK- 5) elementary school. This urban school has a large English Learner population with the majority of students being Hispanic/Latino including students with disabilities ranging from mild to severe. Every autumn, a large portion of these enrolled preschool students articulate into kindergarten – continuing their school experience at ABC Elementary for the remainder of their primary schooling.

Previously, PreK supervision fell under central district administration until recent leadership and budget shifts moved PreK evaluation and support to

elementary site principals. The current principal seized this opportunity to reconsider how to integrate the preschool programme into the elementary structure and align teaching practices across PreK-TK-K classrooms.

Considering contractual limitations and essential duties as well as functions for committee work, the principal proposed a project to develop a vertical PLC focused on PreK-TK-K in order to develop continuity of interactive reading practices across teachers and to invite specialized professionals to encourage differing views. A vertical teaming approach was selected in order to connect preschool teachers to the greater school community including classroom teachers, content experts and university partners in education as well as provide a direction for what preschool students needed to know and do in kindergarten. This approach provided a wealth of certificated experience that preschool teachers typically did not have access to, given the nature of their preparation programmes.

### ***Participants***

The PreK-TK-K Professional Learning Community comprised the school principal, a university researcher, a resource teacher, a preschool teacher, a transitional-kindergarten teacher, two kindergarten teachers and a bilingual speech-language pathologist who worked exclusively with preschoolers. The principal considered various factors such as work duties currently assigned to educators, who would benefit from participation in the vertical PLC, and who would contribute and add social capital to the group.

Each member agreed to participate in the project. The principal, speech-language pathologist, resource teacher, preschool teacher, university researcher and transitional-kindergarten teacher participated for the entire length of the study, while kindergarten teachers changed from year one to year two. All eight professionals were female. At the time of the project, the teaching experience varied for each professional (2 years to 29 years). Two educators held bachelor degrees, four had master's degrees and two held doctoral degrees.

### ***Procedures***

During this 2-year period, a participant-observation method was employed in order to observe behaviors, artefacts and events in an academically social setting (Marshall and Rossman, 2006). This method provided the authors with rich opportunities to engage PLC members as well as record observations to identify emergent patterns among the group. The PLC convened about every 8 weeks from October of the first year until May of the second year for

approximately 45 minutes. Thus, they met 6 times each year for a total of 12 meetings. With the exception of the first two meetings, PLC meetings were audiotaped and transcribed verbatim by research assistants and the third author checked transcripts against the audiotapes to ensure accuracy. During the second year, the team received a Learning and Leadership Grant from the National Education Association, where educators received a stipend in the amount of either \$816 (2 years of participation) or \$412 (1 year of participation). The principal and university researcher did not receive stipends.

In addition, the principal allocated site funds to purchase target books for each educator to utilize. Members originally suggested books to promote ownership of their participation in the project. The books used were selected from award-winning authors, whose stories were of interest to the children, matched to their social experiences, and were developmentally applicable across grade levels. The educators were familiar with each book and considered them appealing for young students. Educators practised reading the books multiple times prior to the initial reading with students. The following books were chosen: *Memoirs of a Goldfish* (2010) by Devin Scilliann and Tim Bowers; *Miss Nelson is Missing* (1977) by Harry Allard and James Marshall; *Not Norman, A Goldfish Story* (2005) by Kelly Bennett and Noah Jones; *Stephanie's Ponytail* (1996) by Robert Munsch and Michael Martchenko; along with *The Night I Followed the Dog* (1994) by Nina Laden.

Educators already included reading experiences as part of the academic schedule for 15-20 minutes daily. During this time, students were encouraged to listen to stories, participate in classroom discussions and communicate their ideas. In the first year, the principal selected the target book *Stephanie's Ponytail*. In year two, the PLC team selected the book used during the same 6 to 8 week time period and cycled books over the course of this project. This resulted in mutually shared experiences from preschool to kindergarten in which professionals then engaged in collaborative enquiry discussions regarding the vertical articulation of interactive reading pedagogy aligned to the curriculum.

The principal had previously established the use of PLCs as a systemic design for school improvement. Kindergarten to fifth grade classrooms were already engaged in this style of professional development; thus, this practice was extended to the preschool programme. Initially, the principal and university researcher proposed an overarching plan focused on enhancing and supporting alignment of interactive reading practices across the grades. Together they observed in the classrooms during interactive readings and wrote field notes about teacher and student interactions. Field notes were studied for instructional trends and patterns leading to target topics for subsequent meetings. Prior to each meeting, the

principal and university researcher drafted an agenda based on teacher learning needs and/or follow-up from prior discussions. The principal then initiated each meeting using *collaborative enquiry*, a generative conversational process in which teachers explored new ideas, challenged assumptions and compared instructional practices (Vescio et al., 2008; Waldron and McLeskey, 2010). Vibrant discussions occurred as the principal presented reflective questions prompting teachers to share their experiences and thoughts about their classroom lessons, including what worked, what did not work and what they might do differently. During enquiry, team members agreed, disagreed and debated ideas. External stakeholders offered speciality information including childhood and/or language-literacy science to support new ways of thinking. At times, the members read research articles related to interactive reading and/or compared curriculum standards across the grades to help inform each educator's beliefs and practice. Members posed thoughtful questions to clarify their own understanding of different instructional concepts or practices used by one another based on grade, age, teacher's focus and/or child development. The collaborative enquiry process encouraged purposeful conversations to confirm, contrast, extend or abandon one's own way of thinking and provided a cycle of feedback for educators to try new or different teaching practices.

The principal and university researcher also scheduled observations and collected video clips of educators during interactive lessons in an effort to highlight and guide the PLC discussions. The principal considered each educators' comfort level and videotaped only when educator permission was granted. Therefore, for the first year the preschool teacher was videotaped three times, the kindergarten teacher was videotaped twice and the transitional-kindergarten teacher was videotaped once. The PLC members then viewed these recordings together and reflected on specific pedagogy. During the second year, the university researcher videotaped interactive reading lessons for all educators, including the speech-language pathologist using the selected book. The reduction in videotaping resulted from new members joining the group and scheduling difficulties. Additionally, educators individually created autonomous lesson plans for the same book prior to the video recording. The members discussed the lesson plans and video clips in subsequent meetings to further their own learning based on recorded evidence.

### *Data analysis*

Qualitative data was analyzed using a constant comparative method (Glasser and Strauss, 1967; Marshall and Rossman, 2006). Initially, the first and second



authors reviewed and re-read the transcriptions from the PLC meetings in order to reveal if and how members' responses related to one another, the frequency of ideas expressed, and if responses denoted new learning. The inductive interpretive coding process included the following: deconstruction of dialogues by initially reviewing audio-recorded transcripts line-by-line to determine insights, extensive repeated review to identify similar units of meaning and, lastly, reconstruction by mutual supposition as comparisons were made across underlying themes in order to identify the interrelatedness of each to derive the overall fit into a category. Thus, phenomenological data were saturated and specific open coded themes were acknowledged then organized into larger categorical constructs (Creswell, 2009; Glasser and Strauss, 1967; Sargeant, 2012). Peer scrutiny by the third author and research debriefing meetings prompted the repetitive processes of rethinking, rereading and review of the data analysis to bolster triangulation and trustworthiness of the data coding including interpretation in order to minimize bias.

## Results

Upon examination of the conversational data presented in the transcripts, three primary categories emerged: Fun, Conceptual Understanding and Instructional Practices. Table 1 depicts the categories and subsequent themes. Conversational excerpts from a single meeting and across multiple meetings denote key

**Table 1.** PreK-TK-K categories and themes.

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|  |
|--|
| Categories & themes                            |
| Fun  |
| Conceptual understanding                       |
| Alignment to curriculum standards              |
| Shift in teacher metacognitive planning        |
| Awareness of student engagement and motivation |
| Barriers to implementation                     |
| Instructional practices                        |
| Material selection                             |
| Picture prompts                                |
| Choral response                                |
| Questioning                                    |
| Role-play                                      |
| Realia   |
| Writing  |
| Vertical teaming                               |

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perceptions expressed by the educators during enquiry discussions about interactive reading.

### *Categories*

*Fun.* The primary category identified concepts expressed by the educators about making interactive reading fun for early learners. Data indicated various ways in which the educators identified, described and challenged prior ideas then incorporated aspects of fun into their teaching. The data show how educators thought differently about ways to make interactive reading enjoyable for students.

During the PLC meetings, the principal opened with an enquiry about what teachers could do to get young students engaged in reading. The educators had the opportunity to listen, share and learn different perspectives as well as to reflect on actual practice in the classrooms. Given the diverse group of educators, each member brought a unique view to the enquiry discussions, including varied interpretations that spurred cognitive dissonance and new learning. Some described fun by what they observed in the children's physical appearance such as smiles while others discussed representation by verbal responses such as giggles, laughter and excited vocal prosody or a verbal request for repetition of a preferred book or activity. Some even initially questioned why fun would matter for interactive reading. While participation in the PLC provided an opportunity for educators to build a common understanding around the concept of fun, as a group, the educators also reshaped their personal perspective on the topic.

The data provides examples of how a transitional-kindergarten teacher's ideas shifted for thinking about fun over the course of two years. In year 1, she responded to the principal's question, "What's joyful about interactive reading?" by saying: "If it's a good book, they like it well enough to browse through it at breakfast time" (Transitional-Kindergarten Teacher, PLC 3). This teacher's response suggests that the child initiated the construct of fun by choosing to review a favourite book rather than the teacher considering fun as part of her teaching responsibility.

In the 2nd year of the project, a kindergarten teacher challenged the PLC members to apply the construct of fun during interactive read-alouds:

*"So if we take these actions: select fun books, invite movements, think about jobs for kids to do, re-reading, what would happen do you think? What would we see with kids? Kids would become more invested"* (Kindergarten Teacher, PLC 7).

Following these suggestions, at the next meeting, the transitional-kindergarten teacher from year one began to express views on how to incorporate fun by changing the classroom environment and using preferred activities for young learners:

*“We’re so used to that traditional teaching, you’re a group in front of me, it’s okay to have some next to you, some behind you some in front and that just felt so fun. I thought that it really lent itself for authentic listening because there was this and there was that and no one could really hide ‘cause they were so busy doing things.”* (Transitional-Kindergarten Teacher, PLC 8)

The enquiry process provided an opportunity for teachers to study their own practices and gain new ideas from peers working with different aged students. Moreover, PLC members held multiple conversations focused on ensuring interactive reading included modifications for students with special needs by making reading more concrete. The SLP provided additional insights for using tactile cues to add fun into play for preschoolers with communication impairments during interactive reading:

*“It’s good for them to learn pretend play and talk about the book. And they are all having fun with that and they would touch their head and be like “Oh, idea” and they all will touch their head and talk about that to give the basics of that [action].”* (Speech- Language Pathologist, PLC 10)

By the 11th PLC, the transitional-kindergarten teacher who originally expressed a singular view of fun showed expansion in her own perception of what fun might look like during interactive reading by stating:

*“I thought this was kind of exciting, you know there is some value in letting kids choose their learning. . .One girl said beginning, middle and end. The others were like no, too academic, so then they chose to draw on cards or paper.”* (Transitional-Kindergarten Teacher, PLC 11)

The data highlight how the PLC team emphasized the pleasure of reading while also addressing learning. Teachers developed various ideas of fun and then actualized them based on their own understanding, comfort level, skill, and academic focus per interactive reading lesson.

### ***Conceptual understanding***

The second category that emerged related to a cognitive-mental shift in conceptual understanding. Given the diversity of experience, current job specification, and past experiences, educators came into the PLC with a differentiated understanding of interactive reading theory and instructional practice. At the

beginning, some educators equated interactive reading with simple storytime, where the educator read stories aloud to students with no or little intentional planning around learning goals. Other educators understood interactive reading as a method for reading whole stories in their entirety over a series of days concluding with follow-up comprehension questions, while others saw interactive reading as a marriage of the above understandings as well as opportunities to build language and critical thinking in meaningful ways. Throughout this project, educators began changing their conceptual understanding, focusing on the joy children find when engaged in interactive reading. The conceptual understanding category represents the transformative ideas observed in the educators' new learning and reflection during this time. Separate themes were identified within this category, including, alignment to curriculum standards, shifts in teacher metacognitive planning, awareness of student engagement and motivation, as well as barriers to implementation.

### ***Alignment to curriculum standards***

ABC elementary adopted state curriculum standards that provide instructional rigour in order for all children to reach their academic potential (California Department of Education, 2019). For preschoolers, the *Desired Results Developmental Profile (DRDP)* is used as a formative assessment tool to inform instruction and programme standards (DRDP, 2015). For transitional-kindergarten and above, the *Common Core Standards* inform the curriculum utilized across grades (California Department of Education, 2019). Alignment of interactive read-aloud work with grade level standards was evidenced throughout the PLC discussions as demonstrated in the excerpt below:

*“And it’s interesting to see the DRDP, what it calls out and the foundational skills and how they compliment or align with the standards because often there’s a dip. So how do we bring up the rigour of the DRDP which still needs to be developmentally appropriate because they’re three and four? But really preparing kids as they come into TK and Kinder. It’s really important.” (Principal, PLC 12)*

Moreover, conversations extended to include children with disabilities and how educators could differentiate lessons to work within a child's zone of proximal learning while also addressing the goals of the standards as noted in the example below:

*“Looking at standards and how we build vocabulary for our kids with language impairments in classrooms also affects everybody. The idea is that you can use these writing skills from preschool*

through to high school and the kids take ownership and understand when you talk about stories.”  
(Speech-Language Pathologist, PLC 8)

The vertical structure of the PLC provided a space for professionals to examine educational standards, explain how they might perceive the integration of standards with different student populations and extend the learning to educators of other grades and specializations. It further encouraged educators to engage in cognitive flexibility by suspending their own beliefs to consider ideas from other grades and disciplines.

### *Shift in teacher metacognitive planning*

Given the nature of the differences inherent in each member of the PLC team, there were many opportunities for all members to alter their own decision-making because they had a renewed understanding of best practices and connection to the standards. Educators reflected on the art of teaching, which required thoughtful enquiry into learning needs based on the children’s age, how to scaffold a lesson incorporating children’s experiences and how to plan a lesson in ways that addresses curriculum requirements while motivating students. For example, what does comprehension look like in PreK and across the continuum? The data revealed educators challenged their own perceptions due to shared understandings of common requirements, comparison of teaching strategies across the grades, seeing success in others and overcoming self-doubt to try new pedagogy. Throughout meetings, insights about how children learned relative to their age and experiences began to transform, specifically how and why educators planned lessons in the chosen format along with how lessons could be organized differently for children, as shown below:

“I responded in a more planning sense. It forces me, the teacher, to rethink the book and its possibilities. I often might go towards something like fluency or something that’s right in your face so I stretched critically too, to think about that. But then the challenges, if I’m doing that, is it appropriate for my learner, so it goes back to scaffolding, so if it’s so far outside of their zone of proximal development, I have to rethink that too, you know? I think it’s a hard balance.”  
(Kindergarten Teacher, PLC 5)

In that same discussion about planning, a different teacher developed an understanding of how to differentiate and/or modify whole-class lessons with respect to the needs of all learners. Conversations encouraged members to agree, disagree and examine their own beliefs to consider new information.

Educators began to alter their way of thinking about differentiation by providing additional time on one section of the text, allowing for increased repetition of re-reads, and often attempting a different physical configuration of the room to provide space for interactive activities, as noted below:

*“Another thing I added was permission to slow down. I mean that’s a big one. Often I see a lot of rushing and rushing and this actually gave permission to slow down and really do that focused teaching for differentiated learning and it’s okay for us to use one material in many different forms instead of using many different materials to reach all the goals.”* (Transitional-Kindergarten Teacher, PLC 5)

On further reflection, the kindergarten teacher responded by sharing her mental shift regarding interactive reading:

*“Anyways I was thinking it stretched ourselves in terms of what else can I do with this book? What else can I do with this book? Because often I say, okay we’re working on cause and effect or we’re working on compare and contrast or we’re working on beginning, middle, end. So focusing and staying committed with that book forced us to think more critically about the book, that perhaps we wouldn’t have got there because we would have been onto the next [book].”* (Kindergarten Teacher, PLC 5)

Throughout the meetings, PLC members demonstrated an evolving focus from a macro view to a micro view of skills and how to use texts differently to highlight a particular skill or detail during interactive reading. In the excerpts above, educators began to question their prior beliefs and consider new views about interactive reading.

### ***Awareness of student engagement and motivation***

Educators consistently shared that PreK-TK-K learners were enthusiastic about interactive readings. These literacy activities became favourite times for the students as they increased their participation when a teacher assigned reading roles to the children:

*“I love the kids’ involvement. I think it really made them interested and they were all really paying attention because they had that responsibility to read different parts.”* (Kindergarten Teacher, PLC 5)

Moreover, the resource teacher who worked alongside PreK-TK-K teachers also observed that students who previously were less engaged began to request additional readings of the same book as they gained confidence and joy from the interactive reading activities:

“Even get to the point where they practise it a few times and you videotape them so they can watch themselves. If that’s so motivating for them too, then they’ll want to read it again and hear it again . . . They were so excited to show what they knew and like I said, they were very confident like yeah, I can do this.” (Resource Teacher, PLC 12).

Given the exploratory nature of the PLC to bring together a diverse group of PreK-TK-K educators, the educators co-created a trusting environment that not only afforded them chances to try new pedagogy but also sparked motivation for themselves and students.

### ***Barriers to implementation***

Despite the positive benefits educators gained during participation in the vertical PLC, barriers also existed for the project, as demonstrated below:

“As teachers we have to make decisions because this work should not be an interruption, but how do you fit it in so that it’s seamless and not an interruption. I understand that logistically, because we’re reading other things in our classrooms.” (Principal, PLC 10)

In response, the kindergarten teacher expressed her reservations for the interactive reading lessons:

“Sometimes I think that’s too much time. I need that to. . .it’s too much time to prep. It’s worth it, I guess.” (Kindergarten Teacher, PLC 10)

Throughout the project, two educators expressed difficulty with prioritizing planning related to interactive reading. While they read the expected literature and engaged in conversations, progression of their conceptual understanding and implementation of practices were noticeably slower in contrast to other group members.

Educator statements relating to meta-cognitive shifts in planning were the second most frequent category identified. The preschool teacher’s words summarize her thoughts, saying “We discussed it as a learning experience. It gives us a view of what we can do, what we do not have to do and to incorporate what we feel is appropriate.” (Preschool Teacher, PLC 9)

Throughout the meetings, as PLC members deliberated, their insights about how children learned relative to their age and experiences continued to transform.

### ***Instructional practices***

The third category related to instructional practices and represents the actual strategies including differentiated ways in which teachers engaged early

learners. Over the course of the PLC, a shared understanding was developed and common language began to be used when discussing interactive reading approaches across the PreK-TK-K continuum. This exemplified how the use of collaborative enquiry provided opportunities for educators to deliberate pedagogy and practices.

Educator participation in divergent conversations supported the extension of their applied knowledge to interactive reading. Seven different themes emerged in this category: Material Selection, Picture Prompts, Questioning, Choral Response, Role-Play, Realia and Writing.

### ***Material selection***

Texts are a powerful instructional platform for providing students with opportunities to relate personal experiences to the cultural, societal and academic concepts for which they can develop and better understand via interactive readings. Educators thoughtfully considered qualitative indicators like text complexity when selecting books. In particular, learners connected text-to-self, text-to-world and text-to-text. The teachers showed how the authors used particular words or writing styles to highlight an important detail for the reader, as noted below:

“And they had all CAPS for some of the words. . .we figured out that the author shows emotion through words because the words can either be big or the words are italics, showing the emphasis.”

(Kindergarten Teacher, PLC 4)

Additionally, text selections were made in order for books to resonate with students across each grade level and their real-life experiences. During the 6th PLC, the transitional-kindergarten teacher remarked about her learning on text selection by stating:

“I think it lends itself to differentiated instruction. We’ve seen that across grade levels but also within one classroom across reading levels. You could focus on different aspects depending on the kids.”

(Transitional-Kindergarten Teacher, PLC 6)

### ***Picture prompts, questioning and choral response***

In the 4th PLC, the team reviewed video clips of each educator utilizing the same book to examine instructional practices. The principal summarized the instructional practices discussed for early learners:



*“We talked about the idea of tone. [The transitional-kindergarten teacher] did it concretely by charting it the way the author did. The kindergarten teacher did it by acting it out and asking questions.” (Principal, PLC 4)*

Then the preschool teacher responded by adding how she might modify her practice by asking children to draw pictures representing that author’s tone, “you give them a line from the story to draw a picture that matches the tone” (Preschool Teacher PLC 4). Alternatively, the SLP discussed that repetition of the same words also represents tone, especially with preschoolers who exhibit communication difficulties as they repeat the same word over and over to express their emotion and by using group choral response when reading, both highly verbal and less verbal children participated together. Therefore, while educators used the same book they each focused on different aspects relative to their learners and these conversations stimulated different ideas for what they themselves may consider using in their future lessons.

### ***Role-Play***

The idea of role-playing was a new teaching practice for some of the educators. They often expressed concerns with how to manage classroom behaviours, encourage whole class participation and monitor comprehension during role-play. During a meeting where educators used collaborative enquiry to compare techniques, a kindergarten teacher responded by saying:

*“Oh, I had so many ideas after our last meeting and I just never got around to them yet. I read the book to the kids. I asked some of the questions that we had come up with talking about some of the facial expressions and the body movements. But I really want to act it out.” (Kindergarten Teacher, PLC 9)*

The above statement supports the notion that with supported reflective thinking, this educator began to change her opinion about using role-play activities during interactive reading. She displayed excitement about executing a new interactive reading practice in her classroom. It was evident from the PLC discussions that the educators incorporated more role-play activities during their lessons. This technique became a valued instructional practice as it invited different opportunities for all PreK-TK-K students; those with and without disabilities, diverse learners, less skilled readers and those who preferred and benefitted from a kinesthetic approach, as noted here:

“We’re gonna look at emotions according to the character and then hopefully I’ll do a skit with them. Get them used to it and I have somebody who wants to be Viola Swamp, somebody who wants to be Miss Nelson. We can do this. . . get the wig and everything going, so that’s what we’re heading towards.” (Preschool Teacher, PLC 10)

### **Realia**

The use of real objects was another instructional practice discussed by the PLC. Many young children learn by touching and exploring while listening. During the final meeting, the educators specifically reflected on their use of realia within their interactive reading lessons as demonstrated by the SLP substituting different items as exemplified:

“So I found a funky little fish bowl and two really funny fish. They were very odd. Diego was my scuba diver and some random tree was my plant. It teaches them imagination and creativity. It’s not always an exact match to what’s in the book but they get the idea of it.” (Speech-Language Pathologist, PLC 12)

While tangible objects are frequently used in preschool, it was also found to be, beneficial for older students, too. Following a classroom observation, the university researcher acknowledged the alignment of practice across PreK-TK-K grades:

“So [the preschool teacher] had a big string that was the fishbowl. All the kids were holding their picture and when it was their turn, they went into the fishbowl. It was so clever. I was thinking that when these kids get to Kindergarten, and [the teacher] is talking about setting, they are already going to have that background knowledge.” (University Researcher, PLC 12)

Over the two years, all teachers began to incorporate realia into their interactive reading lessons as they found benefits for emergent readers, diverse learners as well as for students receiving special education services. They better understood the effect of teaching and how students could build on their knowledge when articulating across grades.

### **Writing**

Some teachers asked students to draw pictures to illustrate a key part of the book, while others requested that the students write sentences to denote the flow of the story. For example, educators also co-created charts with learners by focusing on text pieces to emphasize specific ideas found within text to build a bigger meaning concept, as shown below:

“. . . I made a chart and I basically broke it down into just two ways either through the pictures or the words as we talk about it.” (Preschool Teacher, PLC 4).

Another teacher used charts to organize related ideas within the story or further develop linguistic aspects:

“We just started a book by giving them a blank picture and showed them how to draw a goldfish and said the setting is a bowl, the goldfish is our main character. Let’s see how it changes. . . It was really fun. I want to do more with it. It would be really cool too to help them with transitions because the kids are getting better at writing.” (Kindergarten Teacher, PLC 11)

The educators had many opportunities to share their beliefs related to instructional practices and extend or challenge their own ideas. They further engaged in conversation and provided one another feedback about their application within the classroom.

### *Vertical teaming*

Lastly, the data revealed that the vertical teaming paradigm among the diverse professionals, in conjunction with collaborative enquiry, prompted divergent reflection for the members. This model formed a unique opportunity for educators to pose questions, engage in disparate conversations and compare ideas, including developmental expectations across grades, thereby influencing their own knowledge and application of practice.

Review of the data showed that traditional instructional practices were more often discussed in year 1 while the educators changed to discuss more creative practices in year 2. In year 1, following demonstrations by the SLP and university researcher, the transitional-kindergarten teacher asked, “Gosh, how do they come up with those ideas” (PLC 6)? Thus, having different grade teachers as well as content experts participate in the PLC increased the diversity of ideas shared across educators. In the second year at the last meeting, the preschool teacher summarized her experience in the project by saying “One person can’t do it all so having that extra support from my co-teachers was really helpful this year. I think it was one of my best years” (PLC 12). Her comment reflects how she also included the SLP and university researcher as co-teachers along with her peers who helped support her learning. As a result of this project, teachers began to refine their own knowledge and showed shifts in thinking related to the nuances of their instructional practices.

## **Discussion**

This empirical project brought together a diverse group of early learning professionals who shared different knowledge and practice ideas of interactive reading for PreK-TK-K children in the United States. Early learning researchers (Reynolds et al., 2010; Reynolds and Temple, 2008) suggest that PK-K children benefit from vertically aligned instructional practices in the classroom. Moreover, Vescio et al. (2008) found that teachers participating in PLCs yielded a strong focus on student learning. Yet, principals often utilized horizontal PLCs in schools rather than vertical PLCs. Moreover, site SLPs, resource teachers and community experts are not regularly included.

This study suggests that the teachers from different grades as well as community professionals added value to the vertical PLC conversations. They did so by providing new information on child development alignment, challenging the stagnation of a singular view that can happen when teachers focus on only one grade, and offering different instructional models that helped each other to stretch their critical thinking for pedagogy and classroom applications. The collaborative enquiry process supported educators' conceptual shifts as they engaged in higher order thinking, self-reflection and internalized new ideas yielding educational transformations similar to other key research (Vescio et al., 2008; Wegerif, 2017). Yet, the current study also differed due to the inclusion of community professionals. The SLP and university researcher offered content expertise that teachers would not have otherwise received. Furthermore, the external stakeholders benefited from participation in the vertical PLC by gaining a better understanding of diverse classroom expectations per grade, articulation of standards as well as similarities and differences in teaching practices across the PreK-TK-K continuum. Likewise, the PreK-TK-K teachers learned new theoretical constructs from the community professionals as well as refining their understanding of academic requirements and differences that helped them think about what students may need to be successful. Early learning researchers (Reynolds et al., 2010; Reynolds and Temple, 2008) advocate for improved student learning that transcends grade levels to support closing the achievement gap. As was illustrated in this project, it is important for principals to consider divergent views when designing their PLCs.

In this study, educators reflected on their own thinking and learned from one another in order to make interactive reading more fun for children. This project suggests that having fun while reading improves student engagement, motivates children to try new tasks, builds confidence during complex learning and is beneficial for both teachers and students. Students who were

having fun were participating more often, requesting repetition of lessons and retaining more details about the stories read, thus suggesting a positive academic outcome as supported by research indicating that more engaged students result in better school performance (Vaszauskas, 2001; Vescio et al., 2008). While explicit academic measures were not collected to correlate with this project, teachers reported they felt the students learned and remembered more about the stories during these interactive reading activities compared to previous lessons. They also stated that listening comprehension and writing improved, specifically in the classroom. It is important for principals to consider guiding educators to incorporate fun into classrooms as it is motivating for both teachers and students as well as supporting positive learning outcomes.

Educational research (Bertrand et al., 2006; Flowerday and Schraw, 2000; Fuchs, 2009; Lohfink, 2014) confirms that teacher beliefs about their own abilities directly influence their capacity and have a clear impact in the classroom. Yet, how does one's beliefs change? The second finding of this study, conceptual understanding, refers to shifting one's mental mindset when learning. Evidence of mental processing by way of cognitive tension and revision led to new insights as teachers learned specific content knowledge for reading as well as made comparisons across grade levels. Furthermore, community professionals learned about the application of reading practices in the classroom. This type of collaborative enquiry corresponds to existing literature (Butler and Schnellert, 2012; Vescio et al., 2008; Wegerif, 2017) that notes that when teachers collaborate, converse and compare opinions, they make fundamental shifts in their practice. Due to the distinct knowledge expressed by each member in the vertical PLC, the educators learned from each other and considered new concepts they would not have otherwise been privy to in a same grade PLC. This bi-directional learning was similar to other research on vertical teaming (Bertrand et al., 2006; Gilmer, 2010). Moreover, classroom teachers expressed new understandings of interactive reading. This mental shift parallels the work of Stephens et al. (2011), even though their focus was on literacy coaches rather than PLCs. Importantly, this study contributes to the educational literature by providing support that beliefs can change when educators collaborate, debate, and challenge their own assumptions during collaborative enquiry. Administrators can consider ways to incorporate collaborative enquiry within vertical teams to support teachers' thinking.

Throughout the PLC discussions, data showed how educators discussed aligning standards across PreK-TK-K for best instructional practices. Educators discussed known literacy techniques identified in research such as

text referencing and discussion (Fisher et al., 2004; Lane and Wright, 2007), but also discussed how to modify lessons for various learners and grades. Overall, educators began to take a more artistic approach and exercised freedom to use realia, writing extensions and other props in order to engage young students in more meaningful ways. At times educators both agreed or disagreed, or questioned new ideas. Engaging in challenging conversations is one way in which individuals alter their own understanding. Due to their participation in the vertical PLC, teachers borrowed instructional practices from one another with greater frequency as their learning and confidence was supported through new learning, which correlates with the work of Stephens et al. (2011) and Wegerif (2017).

This project suggests that principals have a rich opportunity to restructure PLCs by using vertical teaming with collaborative enquiry to guide educator knowledge and shift thinking for the inclusion of fun in teaching as well as generating practical ideas for instruction to promote alignment across grades. As principals are taking on more responsibility for PreK-TK-K learners in their state schools, a model such as the one described in this study provides options and value for creating different professional development actions with the aim of encouraging long-term positive outcomes for teachers, students and communities (Reynolds et al., 2010).

### ***Limitations***

The current study included limitations for consideration. The scope of the project was restricted by the geographical location of the ABC school as well as by the inclusion of only one school district. Participation was limited to a select group of PreK-TK-K educators. Caution was taken during data collection and analysis to mitigate potential biases. Due to the heterogeneity of the team, exact duplication is unlikely yet provides an archetype that could lend information for generalization to other teams. In addition, it was unknown if students had prior exposure to any of the books utilized in this project, nor were achievement data included.

### ***Recommendations***

Extensive research has been compiled on the topic of professional learning communities (Hord and Sommers, 2008; Vescio et al., 2008; Waldron and McLeskey, 2010) as well as interactive reading (Elleman and Compton, 2017; Hoggan and Strong, 1994; Jacobs, 2016; Justice et al., 2017; Wadsworth, 2008) denoting positive outcomes for students. Hence, it would be beneficial

to expand the scope of this empirical enquiry across grade levels and across a broader group of educational professionals. A closer examination of the PreK-3 continuum and vertical teaming could well inform educators for meeting the needs of diverse learners as they articulate through elementary grades. In addition, vertical teaming may provide a structure for principals to explore and access community resources, as well as ways to support teachers in their own growth during professional development that may further benefit schools.

Moreover, given the exploratory nature of the current project, it is important to consider a structured format to examine educators' internal states; by using a pre- and post-survey as well as repeated interviews during the process. One may consider a design with a peer coaching model to help ameliorate teachers' conceptual understandings. This would support measuring the impact for educators participating in the learning community, changes to their opinions and any resulting adaptations to their practice. Lastly, further studies which examine the application of specific interactive reading techniques with corresponding student achievement outcomes is warranted in order to inform broader effective practice.

## **Glossary of terminology**

*Collaborative Enquiry*: A process in which a group of teachers intentionally explore new ideas and examine current practice related to learning (Butler and Schnellert, 2012).

*Educators*: Education professionals including administrators, teachers and specialized services providers who work in state schools (U.S. Department of Education, 2020).

*Interactive Reading*: A teaching technique that promotes child interest and engagement while teachers highlight different literacy components (Fisher et al., 2004).

*Title 1 School*: A state school in the United States that receives additional federal funds to support programmes due to a high enrollment of low-income children (U.S. Department of Education, 2020).

*Vertical Teaming*: A group of teachers from different grades and specialized professionals meeting with a common purpose to exchange ideas and improve student performance (Gilmer, 2010).

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