



Introduction to the special issue on practitioner knowledge to support reading and writing: new directions and approaches

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Over the past 25+ years, many have responded to Moats' (1994) call to attend to teachers' knowledge to support early literacy in English and other alphabetic languages. This body of work has not only deepened our understanding of the specialized knowledge required to teach reading and writing but has also informed standards and position statements concerning what literacy professionals should know and be able to do (e.g., Brady & Moats, 1997; International Dyslexia Association, 2018; Snow et al., 2005). Further research on practitioners' knowledge to support literacy remains necessary, however, as we continue to strive for a broadly literate society. As we move into the next quarter century of research on this topic, it is important to reflect on how research has expanded upon earlier work to elaborate our understanding of this important set of constructs.

The goal of this special issue was to highlight work that broadens our current understanding of practitioners' knowledge to support reading and writing. When establishing the call for papers for the issue, we were especially interested in papers that expanded the focus of the existing literature in one or more ways. First, we wanted to include work that addressed multiple aspects of practitioner knowledge. Drawing on Moats' (1994) seminal work, much of the published literature on practitioners' knowledge to support reading and writing has focused on content knowledge related to word recognition skills such as knowledge of phonology, orthography, and morphology. From our perspective, this has left substantial gaps,

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particularly regarding additional aspects of language and of reading comprehension. Second, we wanted to highlight papers that expanded the student age group beyond the predominant focus on teachers of Kindergarten to Grade 3. Whereas some recent work has expanded this age range, to focus on knowledge of those working with preschool-aged children (e.g., Cunningham et al., 2015; Dwyer & Schachter, 2020; Michel et al., 2014; Phillips et al., 2020; Piasta et al., 2020), upper elementary students (McCutchen et al., 2009; Wijekumar et al., 2019, 2020), middle/high school students (Love, 2009; Magidin de Kramer et al., 2012), and adults (Bell et al., 2013), we were aiming to further expand and enrich this range.

Third, in acknowledgement of the reality that many professionals are involved in supporting students' literacy development, we wanted to address the knowledge of practitioners beyond general education classroom teachers. A burgeoning literature has begun to examine the knowledge of these practitioners (e.g., university teacher educators, speech-language pathologists, interventionists, paraprofessionals, literacy coaches, administrators; see Binks-Cantrell et al., 2012; Brimo & Melamed, 2017; Carroll et al., 2012; Joshi et al., 2009; Spencer et al., 2008). Fourth, we wanted to include papers that used diverse methodological approaches, including both quantitative and qualitative methods. Methodological diversity and innovations may lead to unique insights into practitioner knowledge, psychometrically stronger measures, and more compelling claims regarding the role of such knowledge as it influences instructional practices or student learning. In pursuit of these insights, we have included papers representing varying stages of programmatic research, from new pilot studies to more established projects.

Overview of papers included in the special issue

Each of the papers included in this special issue responds to this call to expand our understanding of practitioner knowledge to support reading and writing. We organize our overview of included papers into three topical sections. Each topic represents a major, but certainly not the sole, focus and contribution of these works.

Development and application of new measures

Several papers provide findings on the development, or early application, of new measures of practitioner knowledge. Pittman et al. (this issue) describe their measure to assess practitioner knowledge of English spelling patterns and influences of linguistic diversity on spelling. In piloting the measure with teacher educators, Pittman et al. demonstrate measure reliability and provide preliminary evidence as to teacher educators' spelling-related content knowledge. Knowledge of simple spelling patterns was a relative strength, whereas knowledge of more complex spelling patterns, and features of Spanish and African American English that might affect spelling, were areas for continued improvement. Few aspects of teacher educators' backgrounds predicted spelling knowledge, with the exception that those whose teaching philosophies emphasized the importance of language constructs

and language variation in spelling tended to have higher knowledge. Peltier et al. (this issue) employed conceptual change theory to improve and revise the Dyslexia Beliefs Questionnaire. They classify current or former Kindergarten–Grade 3 teachers' knowledge about the origins, characteristics, identification, and treatment of dyslexia in terms of alignment with current research (scientific conception), misalignment with research (misconception), or uncertainty (lack of knowledge). In general, teachers' knowledge about dyslexia was characterized as a mix of scientific conceptions, misconceptions, and uncertainty. Many teachers, in particular, held misconceptions about the role of vision and visual perception in dyslexia. Although most teachers reported having no or little prior training about dyslexia, both reported amounts of training and teachers' confidence in their understanding of dyslexia were positively associated with knowledge.

Piasta et al. (this issue) describe their process of developing and piloting a new measure, the Teachers' Content Knowledge of Oral Language Survey, to assess knowledge about oral language concepts and development. In addition to describing measure reliability, Piasta et al. provide initial evidence of validity based on positive correlations with related measures and higher performance of pre-professional speech-language pathologists as compared to preservice early childhood teachers. They did not find associations, however, between knowledge scores and preservice early childhood teachers' preparation to support language learning. Also focusing on knowledge related to oral language, Phillips et al. (this issue) capitalize on their recently developed knowledge measure (Phillips et al., 2020) to examine preschool teachers' pedagogical content knowledge regarding language and vocabulary. They explored how inservice preschool teachers' pedagogical content knowledge related to the time allocated to book reading and children's growth in vocabulary and syntax. Their findings indicate complex associations among knowledge, practice, and children's learning, such that knowledge moderated associations between the latter. Phelps and Bridgeman (this issue) similarly emphasize the importance of knowledge as enacted in practice. They report on their development of performance tasks that span an array of literacy-related topics, including those relevant to word recognition, reading fluency, and writing, and ask respondents to model or explain concepts in the context of teaching. In piloting the tasks with Kindergarten–Grade 6 preservice teachers, they find that the tasks can be administered and scored efficiently, with initial evidence of reliability and validity that supports continued development work.

Innovative qualitative or mixed-method inquiries

Other papers highlight the important insights to be gained through qualitative or mixed-method inquiries into practitioner knowledge. Schachter (this issue) used a phenomenological approach and stimulated recall interviews to understand the knowledge that informed inservice preschool teachers' in-the-moment reasoning during whole class and language arts activities. She indicated that teachers relied on a range of interrelated knowledge during their practice, including knowledge of goals, children, feelings, school environment, skill development, and past experiences. Teachers tended to emphasize knowledge that was specific

to their immediate context as opposed to decontextualized knowledge. Bingham et al. (this issue) also focused on connections between inservice preschool teachers' knowledge and practice and used an open-ended, contextually relevant means of assessing teachers' knowledge about early writing. They reported that teachers tended to focus on children's transcription skills, with few teachers referencing knowledge of all four components of writing established in the literature. The complexity of teachers' knowledge was negatively associated with prior teaching experience and positively associated with measures of the quantity and quality of writing opportunities offered in their classrooms.

Davis et al. (this issue) similarly focused on open-ended methods to document practitioner knowledge. During interviews, they probed upper-elementary and middle-school (Grades 3–8) teachers' understanding of reading comprehension processes using a think aloud protocol, concept mapping, and a short teaching scenario. By integrating across these multiple data sources, they elucidated how teachers' conceptualizations of reading comprehension align with current research and also reflect multiple, diverse theoretical orientations. Likewise, Jakobson et al. (this issue) also used interview procedures to explore Grades 1–9 inservice teachers' knowledge about reading comprehension processes, strategies, and instruction. Their analysis indicated that general education and special education teachers' knowledge about reading comprehension processes largely emphasized cognitive components, with some teachers also acknowledging the roles of metacognition, motivation, and background knowledge. Teachers held implicit, but not necessarily explicit, knowledge about reading comprehension strategies and emphasized instructional activities that primarily supported lower-level processes of reading comprehension.

Knowledge in new practitioner populations

A final set of papers broaden our understanding of knowledge to support reading and writing by reporting findings concerning new or understudied practitioner populations. Gul et al. (this issue) specifically focus on knowledge held by teachers of students who are blind or visually impaired. They characterized these teachers' linguistic awareness and knowledge about dyslexia, noting that such teachers tended to have more accurate knowledge about the role of vision and visual perception in dyslexia than reported in prior studies involving other teacher populations. Preparation, education level, and experience did not predict linguistic awareness, but those with a master's degree and more years of teaching experience tended to have more accurate knowledge about dyslexia. Brimo et al. (this issue) investigated the syntax knowledge of pre-professional speech-language pathologists. Moreover, they considered how this knowledge might be improved. They developed brief, online learning modules and found significant effects for two of four modules, suggesting that such modules may be one way to support practitioners in learning this type of content knowledge.

Themes on which to build future research

Collectively, these papers achieve the goals set for the special issue. They address numerous aspects and representations of knowledge and its application. This includes knowledge related to word recognition (Gul et al.; Phelps & Bridgeman), spelling and writing (Bingham et al.; Pittman et al.; Phelps & Bridgeman), dyslexia (Gul et al.; Peltier et al.), oral language (Brimo et al.; Phillips et al.; Piasta et al.), and reading comprehension (Davis et al.; Jakobson et al.; Phelps & Bridgeman), as well as other knowledge sources used by teachers (Schachter). Papers focus on practitioners spanning preschool (Bingham et al.; Phillips et al.; Piasta et al.; Schachter), elementary (Davis et al.; Jakobson et al.; Phelps & Bridgeman), middle and secondary (Davis et al.; Jakobson et al.), and postsecondary contexts (Brimo et al.; Davis et al.; Gul et al.; Phelps & Bridgeman; Piasta et al.; Pittman et al.) and include preservice and inservice teachers (Davis et al.; Bingham et al.; Jakobson et al.; Phelps & Bridgeman; Phillips et al.; Piasta et al.; Schachter), general and special education teachers (Jakobson et al.), teachers of students who are blind or visually impaired (Gul et al.), and pre-professional speech-language pathologists (Brimo et al.; Piasta et al.). Moreover, included papers represent a range of quantitative, qualitative, and mixed-methods research designs.

Additionally, across papers, there are several key themes that point to important directions for future research. First, the collection of papers highlights the complementarity and potential of diverse measurement approaches—including open-ended, contextually relevant, and situated approaches in addition to more traditional, survey approaches—for comprehensively understanding practitioners' knowledge. These approaches and the new measures introduced show significant promise, with respect to content coverage and psychometric rigor, and are worthy of further study and validation. The ultimate test of a knowledge measure is in how well it relates to student outcomes. More work is needed on each of these approaches to evaluate such predictive associations. As this work proceeds, we encourage authors to explore both direct links (e.g., Bingham et al.) and also the potential for mediated (e.g., Piasta et al., 2020) and moderated (e.g., Phillips et al., this issue) connections to student learning gains. We also encourage authors to continue investigating how knowledge intersects with beliefs, curricula, and contexts to influence both instructional practice and student skill development.

Second, whereas many of the included papers evaluated the association between practitioner's knowledge and their prior educational experiences (e.g., obtained degrees, years of instructional experience, relevant coursework), there were limited findings of significant associations (Gul et al.; Piasta et al.; Peltier et al.; Pittman et al.). This mirrors similar null or inconsistent findings in the literature (Bos et al., 2001; Brady et al., 2009; Clark et al., 2017; Cunningham et al., 2004; Piasta et al., 2009; Puliatte & Ehri, 2018; Spear-Swerling & Brucker, 2003; Spear-Swerling & Cheesman, 2012; Washburn et al., 2011). Thus, the sources, and even correlates, of practitioner knowledge remain ambiguous. Further research is required to explore what might predict—and support—stronger and more impactful knowledge. For example, studies are needed to robustly evaluate

whether particular formats of preservice and inservice professional learning (e.g., online modules such as piloted by Brimo et al.; refutation texts as suggested by Peltier et al.) or use of specific curricular materials (e.g., those designed to be more educative for implementers; Charalambous & Hill, 2012; Davis & Krajcik, 2005) predict gains in knowledge. As noted in several papers (e.g., Phelps & Bridgeman; Piasta et al.; Pittman et al.), the content of teacher preparation coursework and experiences also deserve further attention, particularly as these support learning about aspects of literacy beyond word recognition.

Third, and perhaps of greatest theoretical consequence, the multiplicity of terminologies, and ways of conceptualizing and of operationalizing knowledge constructs, affords both strengths and challenges to the field. More work is required to better understand the structure of practitioner knowledge. For example, constructs labeled as pedagogical content knowledge, applied content knowledge, and knowledge for teaching (e.g., Bingham et al.; Jakobson et al.; Phillips et al.; Schachter) may or may not represent a unitary underlying construct and may, or may not, be distinguishable from content knowledge within various literacy-related domains. Furthermore, as especially illuminated by the qualitative and mixed methods papers included here (e.g., Gul et al.; Peltier et al., Pittman et al.; Schachter), the boundaries between knowledge and beliefs may be less sharp than previously conceived, especially when represented from practitioners' points of view. Similarly, the boundaries between knowledge of instructional practices and performance of such practices may blur; especially when teachers demonstrate tacit acumen that they may have difficulty describing explicitly (e.g., Davis et al.; Jakobson et al.). One question worthy of further exploration is whether bringing practitioner's implicit knowledge into greater metacognitive awareness would increase the utility of such knowledge in shaping instructional planning and in-the-moment decision-making (e.g., Schachter; Bingham et al.).

Conclusion

In conclusion, this collection of papers showcases not only new findings that add to the extant literature on practitioner knowledge to support reading and writing but, as noted above, critical new directions and approaches for continued research. We are grateful to the individual authors, along with reviewers and Editor-in-Chief Malt Joshi, for their contributions to this special issue. We are inspired by the growing literature on this topic and hope the special issue similarly inspires others to engage in research that elaborates and refines our understanding of practitioner knowledge as a means of improving literacy outcomes.

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