

The Ties that Bind: Bringing Research into Practical Spaces

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Abstract: The objective of this research was to explore how educators and researchers can collaborate to create research-to-practice briefs that make research accessible for classroom implementation. Specifically, we examined the benefits, opportunities, and difficulties of working together. While there were challenges, our findings suggest that both researchers and teachers can benefit from collaborating. This pilot research is shaping future work to further bridge the gap between research and practice.

Introduction and Theoretical Framework

Educators and researchers come from two different communities of practice. Educators have a pragmatic focus on their classrooms and deep knowledge of their students and context. In contrast, researchers concentrate on advancing knowledge. Researchers, drawing on theoretical frameworks and empirical evidence, offer unique viewpoints on learning environments. Practitioners, with their experiences in the classroom, can provide valuable insights to researchers. These two distinct communities are characterized by differing perspectives, values, and vocabularies; they have their own strengths, and possess ideas and viewpoints that can be mutually beneficial (Crain-Dorough & Elder, 2021). In a pilot with Jacobs Educators, we investigated the challenges and opportunities that exist between researchers and practitioners when trying to integrate research into classroom practices. Participants collaboratively constructed short written artifacts to adapt research articles into teacher-facing research-practice briefs (RPBs). We connect to this year's conference theme by focusing on how educators and researchers can learn together and from each other in mutually supportive and sustainable ways while transcending the traditional power dynamics that characterize such collaborations. The following research question guided our pilot work: How can teachers and researchers collaborate to connect research ideas into practical guidance for classroom practice?

To understand researcher and practitioner communities, we use third generation cultural-historical activity theory (CHAT) framework to create a system based on the findings from the pilot research (Engeström, 2020). CHAT helps to provide valuable insights into the dynamics of these two separate activity systems and how we might establish meaningful connections between them (Engeström 2020; Bloomfield & Nguyen, 2015). Figure 1 illustrates the activity system representing practitioners and researchers in individual systems and the overlapping activity system as they created RPBs together. The RPBs are a boundary object that connects the two communities.

Methods

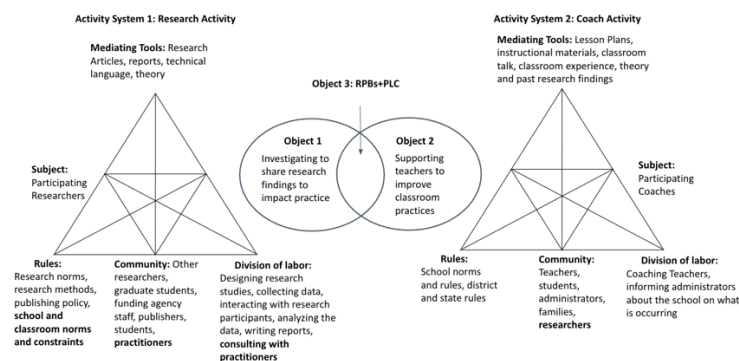
Participants in this pilot research were eight K-12 teachers selected to participate in Jacobs Educator program and five researchers from Indiana University. Each of the researchers were selected to participate because they had written research articles related to technology support for collaborative inquiry. Researchers and teachers came together for six hours to generate a brief RPB that would be useful for other teachers that bridges research, theory, and practice. Data sources for this project were drawn from videos of the teacher-researcher interactions as they created RPBs and interviews. We performed content and thematic analysis (Braun & Clarke, 2012) to inform the development of the activity system.

Findings

Our analysis suggested that both researchers and educators benefitted from taking part in the program, both noting that collaborating to write the RPBs was applicable and impactful in their work, with teachers noting similarities they found in researcher's work and their own experiences in classrooms. One teacher said "A lot of the research that I was exposed to from the researcher I had seen in the classroom. A lot of things that you were describing I had experienced in the classroom, and we were able to work together," with another noting, "We both had the

same view on how students and educators should interact with failure", displaying how teachers recognized their experiences in the classroom overlapping with the researcher's work. The overlap exposed conflicts in teacher and researcher perceptions, grounding their RPBs to bridge the gap between teaching and research. One teacher noted, "At first, I found it difficult to take the findings and implement it in classrooms, however finding research practices and being able to transfer it to many content areas has been very helpful." The researchers also benefited from this process as they could "reinvest into looking at the dialogue of what is happening in the classroom," learn about the language needed to communicate their research with the practitioner audience, and possibilities in a classroom. Using the themes from the analysis, an initial system map was developed to inform future work about how teachers and researchers collaborate on this task.

Figure 1
CHAT system of practitioners and researchers coming together to produce a RPB



Discussion

This study explored how teachers and researchers collaborated to connect research to a real-world application for teachers to implement in their classroom practice. Both communities of practice appreciated how the collaboration of the teachers and researchers made the research more approachable. This work provides preliminary evidence for a professional learning model for both teachers and researchers that gets research "off the shelf" and into use and provides insights to researchers grounded in the teachers' experiences. The use of CHAT is a starting point for future work that will bring teachers and researchers together in meaningful ways and provide a lens to highlight challenges and tensions that prevent connections. This will be explored in future implementations by analyzing rules and divisions of labor from practitioners and researchers.

Acknowledgments

This research was supported by the National Science Foundation under Grants 2300618 awarded to Indiana University and 2300619 Digital Promise.

References

- Bloomfield, D., & Nguyen, H. (2015). Creating and sustaining professional learning partnerships: Activity theory as an analytic tool. *Australian Journal of Teacher Education*, 40(40).
<https://doi.org/10.14221/ajte.2015v40n11.2>
- Braun, V., & Clarke, V. (2012). Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbook of research methods in psychology*, vol. 2: Research designs: Quantitative, qualitative, neuropsychological, and biological (pp. 57–71). American Psychological Association.
- Crain-Dorough, M., & Elder, A. C. (2021). Absorptive capacity as a means of understanding and addressing the disconnects between research and practice. *Review of Research in Education*, 45(1), 67–100.
<https://doi.org/10.3102/0091732X21990614>
- Engeström, Y. (2020). Ascending from the abstract to the concrete as a principle of expansive learning. *Psychological Science and Education*, 25(5), 31–43.