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## Problem-Based Learning in Teacher Education

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# THE INTERDISCIPLINARY JOURNAL OF PROBLEM-BASED LEARNING

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## BOOK REVIEW

### Problem-Based Learning in Teacher Education

Susan M. Bridges (University of Hong Kong)

Filipenko, M., & Naslund, J.-A. (Eds.). (2016). *Problem-based learning in teacher education*. Cham, Switzerland: Springer.

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This edited volume provides a timely, in-depth examination of problem-based learning (PBL) curriculum design elements and the history of development and implementation of one teacher education program at The University of British Columbia (UBC), Canada. Situating the book in the case of the UBC teacher education program experience makes this a compelling read for anyone considering re-designing professional education programs with the goals of fostering critical intellectual inquiry, content integration, and interdisciplinary learning. However, the key contribution remains distinct to PBL in teacher education. As Kerr indicates in Chapter 2, an often overlooked distinction between PBL in teacher education and other professional programs, such as medicine and engineering, is that for teacher education they “can be seen as spaces that seek to *represent* teaching and learning itself.” The authors perceive a wider role of PBL in teacher education, therefore, as it is “not only a method to the preservice teachers but becomes an educational commitment to be engaged in both personally and as an emerging professional” (p.17).

As a case study of curriculum development and change in one institution, the volume demonstrates that PBL should be viewed, as with any curriculum design, as powerfully dynamic. This is reflected from Anna M. Kindler and Pawel M. Kindler’s thoughtful foreword through to Wendy Carr’s closing comments in the afterward. Chapter 1 by Margot Filipenko, Jo-Anne Naslund, and Linda Siegel provides a useful backdrop with a historical tracing from Siegel’s groundbreaking work in the 1998 curriculum to the 2012 reform of the Bachelor of Education program, which coupled the PBL cohort with another cohort focused on Teaching English Language Learners (TELL). This resulted in the design of an interdisciplinary “TELL-PBL” program that adopted both a PBL-based curriculum and pedagogy.

Part 1 of the volume provides a critical clarification about the conceptual basis for designing a problem-based cur-

riculum and examines theoretical framings of PBL curricula under the notion of “dispositions for inquiry.” Clarifying the philosophical and conceptual purpose of teacher education programs is critical and reflects PBL’s fundamental stance on knowledge as situated and co-constructed in authentic contexts.

In Chapter 2, Jeannie Kerr’s discussion of PBL as a “complicated conversation” is textured and nuanced, providing a philosophical and pragmatic framing of PBL as curriculum design and lived experience. She draws upon early scholarship on PBL implementation in medical education and the ensuing efforts to deconstruct its theoretical underpinnings. She then expands this base to explore PBL philosophy through a hermeneutic lens. This is a timely revisiting of the philosophical foundations of PBL, and opens opportunities for wider discussion in general PBL scholarship. Revisiting Gert Biesta’s (2013) critique of constructivist approaches leads Kerr to redefine the traditional PBL tutor role.

Chapter 3 by Jo-Anne Naslund and Lori Prodan takes up the thread of “dispositions of inquiry,” building on Dewey’s original work and situating the process of inquiry as the fundamental core of the program. This echoes with similar global reform initiatives in the field of teacher education, which are undertaking inquiry-based curriculum designs to address the often lamented disconnect between theory and practice (see, for example, the redesign of the postgraduate program at the University of Hong Kong, Bridges et al., 2018). Naslund and Prodan’s reporting of the two-year Dispositions for Inquiry Research Project (DIRP) examining professional dispositions in relation to curriculum design illuminates the “take up” of inquiry into practice by pre-service teachers and their tutors, along with its effect on pre-service teacher learning. The shift from viewing teaching practice as “skills” to “dispositions” reflected a fundamental change for the program teachers.

The four chapters in Part 2 focus on collaboration, both on the pre-service teacher level and on the curriculum leadership level, which is perhaps the greatest challenge for PBL reforms. The very nature of a PBL curriculum is the integration of content that disrupts disciplinary silos. As these chapters outline, collaboration across disciplines has been central to this particular PBL curriculum design. In Chapter 4, Steven Talmy and Margaret Early describe the process of “knowledge mobilization” in redesigning the TELL/PBL program to merge two distinctive pre-service cohorts under a PBL model. Their detailed ethnographic study of program development is very useful for those planning a reform, and also traces faculty challenges, such as loss of identity.

Chapter 5 by Margot Filipenko details the case design for the 2012 TELL program in the BEd. A key contribution to the scholarly reporting of PBL studies is the inclusion of a detailed program-level mapping, providing a content matrix and thematic strands, in the opening prior to explicating case design. This critical aspect of PBL as curriculum-level design (see Lu et al., 2014) is often overlooked and underreported but provides rich contextual detail at the program level.

In Chapter 6, Kathryn D’Angelo, Gail Krivel-Zacks, and Catherine Johnson return to the 1998 implementation of the first PBL curriculum to examine the principles of “good governance” at play in designing collaborations between partners, particularly for field-based practice teaching in an integrated PBL program. It provides a useful guide to the roles and responsibilities in the school district and on campus. The lessons shared should assist both current PBL curriculum leaders and those planning to undertake reform.

In Chapter 7, Carolyn Russo and Nicky Freeman adopt a narrative account from both the perspective of the school advisor and a PBL pre-service student to illustrate how a PBL curriculum can lead to new approaches in school-based mentoring and pre-service teacher learning. Both provide compelling and transformative reflections.

Part 3 drills down to PBL as pedagogy by sharing six examples of faculty enactment of an inquiry-led curriculum. After exploring their own multiple, and often competing, roles as tutors in UBC’s inquiry-based program, Frank Baumann and colleagues propose in Chapter 8 to re-title the tutor from the traditional PBL notion of tutor-as-facilitator to tutor-as-provocateur. In Chapter 9, Lori Prodan draws on her own experience transitioning from instructor to PBL tutor, which she concludes was not as radical a departure as she had anticipated, given her focus on using her skills and expertise to respond to student learning needs. Given the primacy of self-directed learning in PBL, Jo-Anne Naslund’s account about the role of academic librarians in Chapter 9 echoes earlier chapters on curriculum governance, leadership, and partnerships. She notes from her study across in-

stitutions and fields that “an immediate impact of PBL programs resulted in a major increase in the use of academic libraries’ resources and services” (p.138). This aspect is less understood, and this chapter was enlightening in illustrating the role academic librarians should be taking in curriculum planning and meeting the research needs of students, perhaps even more so in an era of connectivity. Her reflections address the changing role of the librarian’s relationship to PBL cohorts, which has seen a transition from providing information literacy workshops to more personalized coaching and then digital literacy coaching.

In Chapter 11, Anne Zavalkoff shares the perspective of the specialist resource academic—a key role often neglected in PBL literature’s focus on the facilitator role. The role of the content specialist is outlined in terms of resource provision and consultations to non-specialist colleagues and students. The detailed description of how the specialist, thematically linked workshops are embedded within a PBL cycle provides a clear example of one type of curriculum-level scaffold that can be drawn upon to enhance a PBL curriculum design. Whilst maintaining the centrality of the problem/case at hand as the driver for all learning, such additional learning activities structured within the PBL cycle can provide support for specific learning issues.

In Chapter 12, Cynthia Nicol and Fil Krykorka share another partnership piece, this time between a teacher educator and a program pre-service (now practicing) teacher. In this chapter, they explore their separate but related experiences in designing place-based problems in tertiary (pre-service teacher education) and primary (mathematics) education to inspire student learning. Seeing two such co-authored contributions in the volume may be further evidence of long-term collaborations arising from such a student-centered program.

Chapter 13 by Anne Zavalkoff provides a useful example of triple jump assessments and how they are well aligned to assess the complexities of inquiry-based education. Chapter 14 by Margot Filipenko, Jo-Anne Naslund, and Lori Prodan gives a sober reflection on “continuing challenges” for the TELL-PBL curriculum through three case studies focused on deep understanding of language acquisition and its teaching strategies, collegiality (especially with administrators), and strengthening school partnerships. Arguably, these issues are universal not only to pre-service teacher education, but also to PBL curricula in general, especially in terms of PBL’s challenges with complex administrative models and epistemological debates about the breadth of domain-specific knowledge. In their conclusion to this chapter, they remain committed to problem-based learning, viewing its key benefits for pre-service teacher education programs in terms of flexibility and adaptability.

Wendy Carr's closing comments in the afterward signal future directions for the UBC curriculum, but the influence of their PBL expertise remains a strong thread with broader adoption of cross-curricula case-based inquiry focused on teacher preparedness for rapidly changing school contexts.

Overall, this volume is a worthy read. It not only shares theoretically-informed insights and empirical evidence from curriculum developers, but also gives a frank account about the challenges of curriculum leadership—an area of central concern when scaling PBL up to the program/curriculum level.

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