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## Guest Editors' Introduction: Unpacking the Role of Assessment in Problem- and Project-Based Learning

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# THE INTERDISCIPLINARY JOURNAL OF PROBLEM-BASED LEARNING

#### **GUEST EDITORS' INTRODUCTION**

# Unpacking the Role of Assessment in Problem- and Project-Based Learning

Liz Bergeron, Drew Schrader, and Kris Williams (New Tech Network)

Assessment is an integral aspect of teaching and learning, regardless of the pedagogy. Within problem-based learning (PBL) and project-based learning (PjBL) there are particularly unique challenges and opportunities related to assessment due to the specific elements of instructional design and the types of outcomes that are often targeted within PBL and PjBL classrooms.

As editors of this issue we drew extensively from our experience supporting PjBL in New Tech Network (NTN) schools. NTN schools engage in PjBL as the primary mode of instruction because of its ability to develop important lifelong learning outcomes while increasing student ownership and engagement in their learning. In our work with schools in the NTN, we often are asked how we view the role of assessment in PjBL classrooms. And we have learned that answering this question is not straightforward because we don't isolate assessment activities—NTN's approach to assessment is nicely captured by Gisselle Martin-Kniep and Joanne Picone-Zocchia (2009) in noting that "assessment is at its best when it is ongoing and most difficult to distinguish from the teaching that is occurring" (66).

Schools in the NTN pursue assessment for learning by making performance assessments in the context of inquiry-driven projects and problems the primary mode of student assessment with an emphasis on disciplinary knowledge and thinking, agency, collaboration, and oral and written communication. Additionally, adults in the NTN schools regularly use artifacts from performance assessments to fuel professional conversations about expectations for quality and professional learning around effective instructional design and facilitation. These approaches to assessment require and develop a school-wide culture of inquiry, feedback, and growth.

The complexity that comes with the implementation of assessment in inquiry-based classrooms creates an opportunity for innovation across a wide range of potential practices. This special issue dives into several topics aimed at unpacking this complexity and highlighting learning that has resulted from those efforts. Consider the article "Performance Assessment Practice as Professional Development" by Svihla and Kubik, which describes how professional development structures were designed and implemented to support standardized, high-quality performance assessments (PAs) across four PjBL schools. Through the use of a PA "shell," teachers were able to more effectively focus on the planning, implementation, and evaluation of PA practices at their school sites. Additionally, in Mahmood and Jacob's teacher action research project documented in this special issue, we gain insight into assessment practices aimed at grading for growth using individual student progress as the structure for the rubric. In their article "Using Sliding Rubrics to Grade for Growth in a PBL Classroom to Motivate Struggling Learners," sliding rubrics are implemented in a PBL classroom as a way to motivate all learners and assess growth to inform learning. In another Voices from the Field submission, "The Role of Using Formative Assessments in Problem-Based Learning: A Health Sciences Education Perspective," educators Kelley, Fowlin, and Anderson discuss the challenges health science instructors encountered as they engaged pharmacy students with open-ended PBL as part of their third-year curriculum. Students struggled with the reality of more than one possible correct solution, and their paper shares the experience a group of instructional designers and health science subject matter experts had in working to better support students' problem solving in PBL through improved formative assessment.

As PBL and PjBL practices continue to spread across a variety of contexts, the opportunity for further learning and innovation increases with each new problem that is addressed by an intrepid classroom teacher, a well-organized school community, or a thoughtful researcher. With PBL and PjBL reflecting a more mainstream approach, the challenges encountered in its implementation are often the challenges seen throughout our education system: issues of inequity and the opportunity gap, increasing teacher and leadership turnover, rigid systems of accountability that inhibit risk-taking, and generally low levels of morale within the education community. Assessment is inextricably intertwined within all of these challenges. It is our hope that this special issue of the journal creates an opportunity for collecting and sharing some of the effective and innovative ideas in assessment that are taking place across the project- and problem-based learning community.

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#### References

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Liz Bergeron serves as the senior director of research for the New Tech Network. Bergeron was previously an assistant professor at the University of Wisconsin La-Crosse where she taught undergraduate courses in assessment, curriculum and instruction, research methods, and instructional technology. Prior to work at the university level, she was the global research manager for the International Baccalaureate (IB) organization where she provided management and oversight for the Program Impact Department. Bergeron earned a PhD with a concentration in science education from George Mason University in 2011.

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