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## “PBLing the unPBLable”

*Exploring the Power of PBL Implementations for Organizational Learning Introduction to the special issue*

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*Published in:*  
Interdisciplinary Journal of Problem-based Learning

*DOI (link to publication from Publisher):*  
[10.7771/1541-5015.1928](https://doi.org/10.7771/1541-5015.1928)  
[10.14434/ijpbl.v14i2.31415](https://doi.org/10.14434/ijpbl.v14i2.31415)

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*Publication date:*  
2020

*Document Version*  
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*  
Scholkmann, A., & Thomassen, A. O. (2020). “PBLing the unPBLable”: Exploring the Power of PBL Implementations for Organizational Learning Introduction to the special issue. *Interdisciplinary Journal of Problem-based Learning*, 14(2 Special Issue), 1-4. <https://doi.org/10.7771/1541-5015.1928>, <https://doi.org/10.14434/ijpbl.v14i2.31415>

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# THE INTERDISCIPLINARY JOURNAL OF PROBLEM-BASED LEARNING

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Introduction to the special issue

**Antonia Scholkmann** (Aalborg University)  
**Anja Overgaard Thomassen** (Aalborg University)

IJPBL is Published in Open Access Format through the Generous Support of the [School of Education](#) at Indiana University, the [Jeannine Rainbolt College of Education](#) at the University of Oklahoma, and the [Center for Research on Learning and Technology](#) at Indiana University.

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2020 SPECIAL ISSUE: PBLING THE UNPBLABLE

## “PBLing the unPBLable”: Exploring the Power of PBL Implementations for Organizational Learning

*Introduction to the special issue*

Antonia Scholkmann and Anja Overgaard Thomassen  
(Aalborg University)

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### Why PBLing the unPBLable might now be more relevant than ever

As stated in the call for papers one and a half years ago, our intention with this special issue was “to explore what we can learn from PBL initiatives in formerly unPBLed and seemingly unPBLable contexts with respect to their contribution for organizational learning processes” (Scholkmann & Thomassen, 2019). We were calling for papers that could add new perspectives to the undertaking of bringing the ideas and practices of problem-based learning (PBL) to institutions, teams, and individual teachers. Also, we were looking for contributions on how individual teachers, teams, and even full institutions taking up PBL as their dominant instructional format could and would trigger learning and (conceptual) change at the individual, team, and organizational level. And we are proud to present five papers that provide new perspectives on the rationales, processes, challenges, or mixture thereof when implementing PBL across institutions, programs, or individual courses.

One and a half years ago, opening the editorial by stating that the world is getting increasingly complex, interdependent, and vulnerable would have sounded like just another replication of an all too common cliché. Now, with the COVID-19 pandemic the tip of the iceberg of global challenges, we are experiencing intensified debate around sustainable development and how to address the burning challenges the world is facing in the areas of migration, diversity, threats to democracy, and the very apparent climate changes that are threatening to destroy living conditions in some parts of the world. These societal and environmental challenges

also point in the direction of education and the educational system (e.g., Senge, 2010). The question of how to educate students for the future becomes even more pressing.

Teachers and educators have always been engaged in this discussion; historically, it has often focused on how to increase students’ level of knowledge and insight within a specific subject to the highest possible extent. However, as Schön (1987) pointed out in his often-cited book, *Educating the Reflective Practitioner*, theoretical knowledge does not make a good problem-solver. The analytical skills needed to define the problem and to select useful methods or tools for the problem-solving process are fundamental competences when dealing with complex situations. However, is Schön’s argument enough if we consider the present environmental and societal situation?

In light of the pressing need to make higher education as good as it can be to educate competent problem-solvers, bringing PBL into education(s) as a pedagogical alternative gains additional relevance. We dare to argue that especially introducing real-life wicked problems as the point of departure for educational activities stands strong; by removing theory from its position as the most important content to be provided to students, the traditional way of thinking is turned upside down. Introducing real-life complex problems opens a window to the complexities that surround us and reveals that in organizational contexts problems are seldom solved by an individual’s professional competency, but in interdisciplinary teams.

This argument—that PBL is a radical pedagogical alternative for higher education—connects with the interest from our call for papers in how organizational learning can be triggered by and through PBL in a specific way. Fundamental, conceptual learning and change can also happen within

organizational learning, as described for example in the concept of single- and double-loop learning (Argyris & Schön, 1978). Since PBL is a fundamentally different instructional approach than any form of more “traditional” teaching, bringing PBL into new contexts and to new people will likely require highly transformative learning and change that goes beyond a mere enrichment and optimization of existing practices.

## The contributions in this special issue

In the sense of Mezirow (1991), who argues that transformative learning will happen when experiences are supplemented with meaning, the contributions in this special issue can help us to understand how fundamental change can be achieved—by providing pedagogical rationales, theoretical underpinnings, empirical evidence, and reflective practice accounts. However, this special issue also will shed light on a number of challenges and obstacles that might arise when doing so, since both systems and institutions as well as individuals have been shown to behave not always in the most cooperative way towards change (Scholkmann, in print).

The first paper by Anja Overgaard Thomassen and Diana Steentoft, “Educating Students for a Complex Future: Why Integrating a Problem Analysis in Problem-Based Learning has Something to Offer,” provides us with a pedagogical argument why PBL in its very core should be about recognizing, analyzing, and understanding—and not solving—problems. The authors connect this on the one hand to the challenging questions that societies around the world are facing (such as ecology, sustainability, equality, diversity). On the other hand, they argue that the commitment and willingness of an institution to educate students to be competent in addressing these questions can prepare the ground for future PBL implementation. Moreover, in touching on the philosophical fundamentals of the nature and purpose of higher education, they invite us to consider our fundamental understandings of what learning should offer students in order to prepare them to face the “complex and wicked problems” (Thomassen & Steentoft, this issue) ahead for the world.

In the second paper, “Why Don’t We All Just Do the Same? Understanding Variation in PBL Implementation Through the Lens of Translation Theory,” Antonia Scholkmann unravels a different perspective. This paper applies translation theory to explain the broad variations seen when looking at implemented PBL—both in fully PBLed contexts such as Maastricht University or Aalborg University, and in unPBLed settings where single teachers come up with PBL “under the radar.” This paper provides us with an argument for openness, and a willingness to treat especially the small, individual PBL implementations as expressions of a pure heart, even if they might lack some of the elaborate

features of the “big” institution-wide initiatives. This paper also includes a call to action for further research into what makes an institution “PBL-ready” and which mechanisms of power and collaborations might—or might not—lead to a successful “translation” of PBL into a local context.

The third paper by Anette Hindhede on “Cultural Boundary Work When Inviting Constructivist Pedagogy Into Polytechnic Schools” presents an empirical study on the reactions that a PBL implementation triggered in a group of teachers. As can be demonstrated in the qualitative data, teachers were struggling to change their individual and collective mindsets towards the unfamiliar constructivist PBL pedagogy and the radically changed notions about the nature of what “students”, “teachers”, and “knowledge” can be. This study presents an example of the cultural boundary work that a top-down PBL implementation requires in order to prepare the ground for PBL to really take root in a new environment, and it provides an insightful perspective on teachers as the central carriers of new pedagogical ideas.

In a similar yet different way, Mirjam Brassler’s paper, “The Role of Interdisciplinarity in Bringing PBL to Traditional Universities: Opportunities and Challenges on the Organizational, Team, and Individual Level,” explores the potential of interdisciplinary work as a carrier to establish the PBL idea in an unPBLed institution. Interdisciplinarity, the paper argues, lies not only at the core of many problem-based learning activities, but also, incorporating and embracing interdisciplinary collaborations on the team and organizational levels can provide a strong resource for organizational learning about PBL. Moreover, the case presented in this contribution provides new insights into how an institution’s commitment towards sustainability and interdisciplinarity leads to knowledge exchange and reflection in an interdisciplinary team of teachers who worked together to implement PBL, and how their activities in this course fed back into the sustainability and interdisciplinary initiatives of said institution.

Finally, the paper “Problem-Based Learning at a ‘Learning University’: A View From the Field” by Sylvia Heuchemer, Elena Martins, and Birgit Szczyrba gives a first-hand account of how a university of applied sciences has immersed itself in the implementation of PBL variations. These PBL implementations were based on the concept of diversity, which involved making all teaching fit to accommodate diversity in the student body, while also allowing for diversity of PBL variations across teachers and faculties. The paper provides an account of how an institution-wide PBL teaching culture was developed and gives exemplary insights into how this has informed both the individual as well as the collective understandings of the PBL principles and the deep educational change(s) their implementation will bring about.

## Thanks, acknowledgements, and hopes for the future of PBL

Compiling a special issue in times of turmoil is not an easy enterprise, and in this case, it would not have been successful without the help of several important persons. First and foremost, we want to thank the colleagues who were willing to review the papers presented here and to provide their knowledge and expertise to improve them in such a constructive manner. Also, our thanks go to the editors of this journal for providing us with the opportunity to launch this special issue and see it through despite this all happening in a truly challenging year. Also, we want to thank the Department for Culture and Learning of Aalborg University for generously co-funding the proofreading of the non-native speaker contributions.

We hope and wish that what is presented here will serve to inspire and support the best higher education possible and provide insights into how PBL can be used to achieve this. We also hope that the content of this special issue will motivate higher education teachers and leaders through new strategies and angles on how to bring PBL to their institutions.

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Anja Overgaard Thomassen, Ph.D. holds a position as Associate Professor in Problem-Based Learning and Organizational Learning at Aalborg University, Denmark. Anja’s research interest has throughout career focused on Problem-Based Learning, organizational learning, inter-organizational learning and competence development in private and public organizations. Especially her research has focused on processual approaches to organizational change, in particular inspired by pragmatic positions. Furthermore, Anja has headed a number of research projects between Aalborg University and private or public organizations. Anja primarily teach organizational learning, organization theory, and change management at the Bachelor of Organizational Learning, and personal leadership development at the Master in Public Governance at Aalborg University. In recent years she has also taken on positions as Vice-head of department and Head of Study Board, at Aalborg University