

Language Teacher Education on Project-Based Learning and Teaching

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Abstract

This paper calls for language teacher education on project-based learning and teaching (PBLT) to respond to the changing needs of 21st-century language teachers and students. It discusses the rationale by introducing PBLT research and practice with global examples. Sample research findings on the benefits of PBLT are also discussed to illustrate how PBLT can address the more complex challenges of real-world needs. The paper also examines emerging teacher training efforts and presents arguments for scaling up these efforts with a systemic and robust education of teachers on PBLT. Such education should include the philosophical and theoretical foundations, principles, and procedures to better design and adequately implement PBLT, along with an array of curriculum content and professional standards, project modules, and digital tools such as AI, metacognitive strategies, and associated language form-function interface.

Keywords: *Project-based language learning and teaching; Language teacher education; 21st century skills; language, content, and skills development; real-world needs; teachers' needs; students' needs*

1. Introduction

The updates on language policies towards bilingualism and/or plurilingualism as well as technology advances have changed language education from emphasis on discrete language skills to higher-order skills and deeper and broader learning. The current language education professional standards such as the American Council on the Teaching of Foreign Languages (ACTFL), Cambridge Life Skills Competencies Framework (CLSCF), Teaching English to Speakers of Other Languages (TESOL), and the World-Class Instructional Design and Assessment (WIDA) recognize this shift. For example, the CLSCF (2020) encourages teaching creativity, collaboration, communication, and digital literacy to language learners. WIDA Standards Framework (WIDA, 2020) states that language teaching should occur in the “context

of age-appropriate subject matter so that academic language and content can be developed simultaneously (TESOL, 2019)” (Slater & Beckett, 2024, p. 117).

Response to these needs and calls requires a holistic and robust language education approach to prepare well-rounded language teachers. Such an approach must be a departure from the discrete language skills (e.g., vocabulary, reading, and writing) teaching in isolation resulting from a formal linguistics view (Beckett, et al, 2020). A holistic and robust language education approach needs to include teaching and assessing language authentically, contextually, and situationally, using technology in alignment with content curriculum and language education professional standards. Authentic language is the language of the content subjects and metacognitive and social skills that students need for academic success within disciplinary contexts. At the heart of this endeavor is the project-based learning and teaching (PBLT) approach.

2. Why Project-Based Learning and Teaching?

PBLT is a sophisticated educational approach (van Lier, 2006) “for student-centered experiential learning in authentic contexts” (Slater & Beckett, 2024, p. 120). The PBLT approach is based on John Dewey’s (1916) lifelong learning educational philosophy that endorses teaching how to learn to prepare students for changing society rather than having them memorize facts that can be outdated. PBLT has been advocated (Beckett & Slater, 2020) and applied as an ideal approach for simultaneous teaching of content subjects (e.g., social studies) and the English language (e.g., Beckett, 1999; Beckett & Slater, 2005) with technology (Beckett, 2022). It has also been proposed for teaching 21st-century skills—critical thinking, creativity, collaboration, communication, and competence in digital learning competency and language development (Beckett, 2023; Slater & Beckett, 2024). They can be taught and learned “through planning, researching (empirical and/or document), analyzing and synthesizing data, and reflecting on the process and product orally and/or in writing by comparing, contrasting, and justifying alternatives” (Beckett, 1999, p. 4) for projects. As such, projects can be language socialization activities or “sociocultural contexts for teaching and learning curriculum content, school and social cultures” (Beckett, in press, p. 12) as project-related language is taught and learned functionally (Dewey, 1926; Dewey & Dewey, 1915; Mohan, 1986). Language socialization (Ochs, 1988) through PBLT takes us beyond viewing language as decontextualized discrete skills to be taught and learned and seeing it as a meaning-making resource that needs to be taught and learned functionally (Halliday, 2004).

3. Research on Project-Based Learning and Teaching Research

Extensive reviews of PBLT literature indicate an increasing worldwide popularity of PBLT (Beckett et al, in progress; Garib et al, in progress), including nationwide curriculum reforms (Levi, 2008). A U.S. study conducted by Chaparro (2009) to explore international students’

perspectives found project-based learning helped participants gain general confidence. Additionally, the participants in the study reported project-based learning increased their leadership, language, and teaching skills. Mohamad's (2021) experimental study of project-based learning on cultural awareness conducted in Morocco found a public school project-based learning group substantially outperformed peers in the control group. The findings of the study also revealed a need for a radical change of assessment culture. McClurg's (2004) mixed-method study of U.S. middle school student achievement in reading and language arts with PBLT revealed 3.5 times greater improvement in the PBLT group than the nonPBLT counterpart. Zachoval's (2011) quasi-experimental research reported increased reading comprehension as the impact of a semester-long PBLT in a Russian course in the U.S. The findings of Sever's (2015) study showed that PBLT created a conducive context to linguistically and culturally appropriate learning for new ESL students. Liang et al.'s (2020) examination of PBLT in exam-oriented People's Republic of China (P.R.C) also found that PBLT motivated all students, especially usually reserved and quiet ones, to learn enthusiastically, tapping into their multiple talents.

Research also uncovered the need for teacher education on PBLT. For instance, Smith's (2005) two-year study of four teachers' and 136 students' experience with PBLT in Australia revealed a need for teacher training for better articulation all learning, particularly language learning that transpires through PBLT. Similarly, an in-depth case study of one English instructor and 25 students in Taiwan by Hsieh (2012) concluded that PBLT can be an effective approach for educational gain. Successful implementation of it, however, depends on sufficient guidelines and support for both teachers and students. Kuo et al.'s (2020) year-long multiple case study exploring three intermediate-level English language learners' experiences with PBLT in U.S. general education math, science, and social studies classes also found a need for more guided support for the successful implementation of PBLT. The findings of Slater's (2020) examination of technology-integrated project-based language teaching at a U.S. Midwestern University Intensive English program confirmed similar needs. In showcasing the National Foreign Language Research Center (NFLRC) project-based learning initiative, Rodríguez (2016) also acknowledged foreign language teachers' needs for guidance in implementing PBLT, especially when it came to language, content, and the language of content teaching, in alignment with ACTFL standards.

4. Existing Support for PBLT Implantation

To address the aforementioned needs, scholars have conducted and published their research findings (e.g., Beckett & Slater, 2005; Mohan et al, 2015) and practical PBLT units (e.g., Slater & Beckett, 2019; Gleason & Link, 2020), and proposed assessment frameworks (e.g., Chen & Hirsch, 2020; Slater et al, 2006). Beckett and Slater (2005) discuss issues and illustrate the findings of a study on the successful implementation of PBLT in Canada with the Project

Framework. Mohan et al.'s (2015) study illustrates how adult students in Hong Kong worked with *action discourse*, *reporting discourse*, and *expounding discourse* as a way to help teachers understand how students can improve and articulate their learning of content knowledge linguistically. Slater and Beckett (2019) offer a practical curriculum unit designed as an example to help teachers understand and provide an example for a language socialization with a systemic functional linguistics informed project. It is a content-based technology-mediated project unit with specific language socialization activities for second/foreign language students interested in admission into U.S graduate programs (Slater & Beckett, 2024). Gleason and Link (2020) provide a framework that shows teachers and curriculum designers how content curriculum standards and language education professional standards can be addressed through PBLT.

Other efforts include Beckett's (2023) and Slater and Beckett's (2024) guidelines for teaching 21st-century skills and language development with PBLT. The NFLRC has PBLT training webinars and institutes for foreign language teachers interested in PBLT training. Chen and Hirsch (2020) and Slater et al (2006) provide teachers with much needed PBLT frameworks for assessing content knowledge, thinking skills, and associated language development with PBLT.

PBLT teacher training research is emerging. Garib (2022) showed that English as a foreign language (EFL) teachers participated in his research from middle eastern and north-African countries desired and learned PBLT to usefully develop and implement projects for their students but suggested that more training be needed. Garib (in progress) ethnographic case study reported more teachers from that region were also successful in receiving training, designing, developing, and implementing their projects. Similarly, Walton and Beckett (2023) studied 17 undergraduate preservice teacher candidates' learning of Knowledge Framework (Mohan, 1986) unit-plan projects. The analysis of students' projects and their reflections also showed success and a desire for more training.

5. Need for a Systematic Teacher Education on PBLT

We see that PBLT has been adopted and researched globally. Needs and desires for training teachers have been identified and are being addressed, with some guidance through publications and short-term training. With the available knowledge and other resources, including artificial intelligence tools that can help address some PBLT design and implementation challenges, time is ripe for scaling up. To do that successfully, a systematic teacher education on PBLT is necessary. Such education should include not only the philosophical and theoretical foundations, principles and procedures, and design and implantation of PBLT, but also project modules aligned with content area curriculum (e.g., mathematics, social studies) and language education professional standards (e.g., CEFR, TESOL, WIDA). Additional components of such education should include metacognitive, literacy, and digital, as well as research skills and associated language form/function through multimodal experiential learning. We believe that robust

assessment instruments designed, developed, and informed by theories in alignment with PBLT should be incorporated into every PBLT project module. Digital tools, including artificial intelligence, can be included in many aspects of PBLT. Such education empowers us with a more sophisticated and improved language education policies and pedagogies to guide teachers. Together, we can inclusively address the 21st-century language teachers' and their students' real-world needs by taking the field beyond outdated form-focused approaches contextually, critically, creatively, and responsibly. Higher education is where this is possible as it is equipped with intellectual and professional capital as well as material and human resources essential for achieving these goals systematically, collaboratively, and holistically, especially in increasingly dynamic post-truth and generative AI crazed era.

References

- Beckett, G. H. (1999). Project-based instruction in a Canadian secondary school's ESL classes: *Goals and evaluations*. (Doctoral dissertation). The University of British Columbia.
- Beckett, G. H. (2022). Revitalization and revival of indigenous languages and cultures with applied linguistics and technology. *Diaspora, Indigenous, and Minority Education: Studies of Migration, Integration, Equity, and Cultural Survival*, 16 (4), 220-226. doi.org/10.1080/15595692.2022.2115030
- Beckett, G. H. (2023). Project-based learning for 21st century skills: The five C's for L2 students. *Docens Series in Education*, 5, 40-57. <https://docensjournal.org/index.php/docens/article/view/34>
- Beckett, G. H. & Slater, T. (2005). The Project Framework: A tool for language and content integration. *The English Language Teaching Journal*, 59 (2), 108-116. doi:10.1093/eltj/cci024
- Beckett, G. H., Slater, T., & Mohan, B. A. (2020). Philosophical foundation, theoretical approaches, and gaps in the literature. In G. H. Beckett & T. Slater (Eds.), *Global perspectives on project-based language learning, teaching, and assessment: Key approaches, technology tools, and frameworks* (pp. 3-22). New York: Routledge.
- Beckett, G. H., & Slater, T. (Eds.). (2020). *Global perspectives on project-based language learning, teaching, and assessment: Key approaches, technology tools, and frameworks*. New York: Routledge.
- Cambridge Life Competencies Framework: Critical Thinking*. (2020) <https://tinyurl.com/2xcd2m9t>
- Chaparro, D. P. (2009). Are our efforts worthwhile? International students' perceptions of a project-based program designed to internationalize higher education. (Doctoral dissertation). University of Minnesota Digital Conservancy, <https://hdl.handle.net/11299/48531>.
- Chen, M. & Hirsch, R. (2021). A research-based framework for assessing technology infused PBL. In G. H. Beckett & T. Slater (Eds.), *Global Perspectives on project based language learning, teaching, and assessment: Key approaches, technology tools and frameworks* (pp. 224-243). New York: Routledge.

- Dewey, J. (1916). *Democracy and education*. New York: Free Press. <http://www.ilt.columbia.edu/publications/dewey.html>
- Dewey, J. (1926). *Democracy and education: An introduction to the philosophy of education*. New York: The Macmillan Company.
- Dewey, J., & Dewey, E. (1915). *Schools of to-morrow*. London: J.M. Dent & Sons, Ltd.
- Garib, A. (2022). "Actually, it's real work": EFL teachers' perceptions of technology-assisted project-based language learning in Lebanon, Libya, and Syria. *TESOL Quarterly*, 57 (4), 1434-1462. <https://doi.org/10.1002/tesq.3202>
- Gleason, J. S., & Link, S. (2019). Using the knowledge framework and genre pedagogy for technology-enhanced form-function project-based language learning. In G. H. Beckett & T. Slater (Eds.), *Global perspectives on project-based language learning, teaching, and assessment: Key approaches, technology tools, and frameworks* (pp. 204-223). New York: Routledge.
- Halliday, M.A.K. (2004). *An Introduction to Functional Grammar* (3rd ed.). London: Hodder Arnold.
- Hsieh, L. W. K. (2012). Technology-supported project-based learning in a Taiwanese university oral communication course: A case study. (Doctoral Dissertation). Alliant International University. <https://www.learntechlib.org/p/118029/>.
- Kuo, A. C., Miller B., Wright, E., & Sutton, P. (2020). Altering the view of language instruction in project-based learning: Examining the bilingual teachers' unit design experience. In G. H. Beckett & T. Slater (Eds.). *Global Perspectives on Project-Based Language Learning, Teaching, and Assessment: Key Approaches, Technology Tools, and Frameworks* (pp. 244-262). New York: Routledge.
- Levi, T. (2008). Reliability, validity and feasibility of the Project: A component in the Israeli EFL Matriculation test. *Melbourne Papers in Language and Testing*, 13 (2), 1-34.
- Liang, J., Xie, F. & Gao, M. (2020). Beyond exams: Research-based dynamic, technology mediated, project-based framework for meaningful language learning in a secondary EFL setting in China. In G. H. Beckett and T. Slater (eds.), *Global perspectives on Project-Based Language Learning, teaching, and assessment* (pp. 263-282). New York: Routledge.
- McClurg, S. (2009). Increasing middle school student achievement in reading and language arts with project-based learning methods of instruction. (Doctoral dissertation). Walden University.
- Mohamad, A. (2021). The impact of project-based learning on students' cultural awareness. *International Journal of Language and Literary Studies*, 3 (2), 54-80. doi.org/10.36892/ijlls.v3i2.601
- Mohan, B. (1986). *Language and content*. Addison Wesley.
- Mohan, B., Slater, T., Beckett, G., & Tong, E. (2015). Tasks, experiential learning, and meaning making activities. In M. Bygate (Ed.), *Domains and directions in the development of TBLT: A decade of plenaries from the international conference* (pp. 157-192). Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Ochs, E. (1988). *Culture and language development: Language acquisition and language socialization in a Samoan village*. Cambridge: Cambridge University Press.

- Rodríguez, J. C. (2016). Project-based language learning & interculturality intensive summer institute. <https://nflrc.hawaii.edu/events/view/84/>
- Sever, R. (2015). English language learners and project-based learning: Creating a space for transformative literacy experiences. (Doctoral dissertation). Indiana University.
- Slater, T. (2020). The Knowledge Framework: An organizational tool for highlighting the “LL” in technology integrated PBL. In G. H. Beckett & T. Slater (Eds.), *Global perspectives on project-based language learning, teaching, and assessment* (pp.185- 203). New York: Routledge.
- Slater, T., & Beckett, G. H. (2019). Integrating language, content, technology, and skills development through project-based language learning: Blending frameworks for successful unit planning. *MEXTESOL Journal*, 43(1), 1-14. <https://rb.gy/cxxqg>
- Slater, T. & Beckett, G. H. (2024). Developing critical thinking and language skills through project-based learning and the Knowledge Framework. In S. Ali & B. M. Berg (Eds.). *The content area language and literacy open education* (117-135). Open Textbooks. 5 <https://digscholarship.unco.edu/textbooks/5>
- Slater, T., Beckett, G. H. & Aufderhaar, C. (2006). Assessing project-based second Language and content learning. In G. H. Beckett & P. Miller (Eds.), *Project-based second and foreign language education: Past, present, and future* (pp. 241-262). Greenwich, CT: Information Age Publishing, Inc.
- Smith, M. A. (2005). Autonomy and project-based language learning: Factors mediating autonomy in project-based CALL (Doctoral dissertation). The University of Melbourne.
- TESOL International Association. (2019). *Standards for Initial TESOL Pre-K-12 Teacher Preparation Programs*. <https://tinyurl.com/53k5jyk2>
- van Lier, L. (2006). Foreword. In G. H. Beckett & P. C. Miller (Eds.), *Project-based second and foreign language education: Past, present, and future* (pp. xi-xvi). Greenwich, CT: Information Age Publishing.
- Walton, A. & Beckett, G. H. (In Press). Learning and using the Knowledge Framework as a language and content teaching unit projects: A case study. In T. Slater (Ed.). *A Knowledge Framework Approach to Linguistic Research and Teaching. Social Practices in Higher Education* (pp. 360-381). London: Equinox Publishing.
- WIDA. (2020). WIDA English language development standards framework, 2020 edition kindergarten–grade 12. <https://wida.wisc.edu/sites/default/files/resource/WIDA-ELD-Standards-Framework-2020.pdf>
- Zachoval, F. (2011). The effect of implementing an interactive reading project on reading comprehension in the third semester Russian class. (Doctoral dissertation). University of Texas, Austin.