

Assessment in Project-Based Language Learning

Annotated bibliography

Sachiko Sawamura

Introduction

In recent years, project-based learning (PBL) has become more popular in education as well as in language teaching. In PBL, students work on a project in groups using the target language for language learning. PBL can motivate students and create positive communication and collaboration as they develop language, content, and thinking skills. This integrative, holistic, and formative approach appeals to many educators; however, they may hesitate to implement it in their class because it does not fit easily into standardized testing contexts. Indeed, this learning requires alternative ways to assess students' progress and achievement; moreover, such assessments in PBL should help students know what they have learned, and offer positive washback in learning. In this annotated bibliography, I review journal articles and book chapters on assessment in PBL with the hope of helping teachers who are interested in implementing PBL, particularly in Japanese schools. The main themes in these sources are that both process and product are important and that content, language, social, and thinking skills are keys in assessments in PBL.

Annotated Bibliography

Bell, S. (2010). Project-based learning for the 21st century: Skills for the future. *Clearing House*, 83(2), 39-43.
doi:10.1080/00098650903505415.

The author started out with the statement that the main skills for the twenty-first century are collaboration, cooperation, communication, and problem-solving skills. Students need to be educated to be "independent thinkers and learners." Standardized tests only assess students' knowledge about specific content. PBL

can be used to assess students' 21st century skills as "productive members of a global society." By giving and receiving feedback from and negotiating with peers, students will learn the importance of collaboration in groups. The author suggested measuring students' performance by using rubrics and the process of self-evaluation and reflection. Teachers should assess projects in such authentic ways.

This article describes PBL and suggests why it is a good way to train students in skills for the 21st century, but it devotes minimal space to explaining assessment. In fact, it contains no detailed rubrics or self-evaluation forms to which teachers can refer. Nonetheless, this article could be read as a starter to know what PBL is. I think teachers who want to learn how they can change their traditional ideas to the new ones using PBL will benefit from reading this article.

Debski, R. (2006). *Project-based language teaching with technology*. Sydney: National Centre for English Language Teaching and Research.

Chapter 8 of this book describes assessment for PBL in language learning, where students create a website in groups. The traditional approach to language teaching, which focuses on linguistic forms, has been changed to have students use the target language as a tool through projects. The author suggested that teachers should weigh the process in assessment to encourage and hold students accountable for the effort they put into their projects. Assessment could be carried out by students, peers, and the teacher through questionnaires, checklists, and diaries. Teachers observe and assess students' language skills not only in their products but also throughout



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Publication's website: <http://www.hpu.edu/index.cfm?contentID=8064&siteID=1>

the process with these questionnaires and diaries. Similar to the suggestions of other authors writing about PBL, cultivating students' self-awareness of their learning and promoting peer assessment were also emphasized.

Debski introduced two course assessment outlines in PBL classrooms at a university, where students create websites. The assessment outlines contain example criteria to evaluate the projects, such as presentations, interviews, chats, journal entries, self-introductions, peer reviews, final products, and portfolios. Detailed rubrics or self-assessment forms are not provided. However, this chapter offers teachers some concrete clues on how to design PBL lessons as well as assessments. According to the author, the process of completing a project might include keeping records of chats, journal entries, and questionnaires, and should receive a high percentage of the total grade, even up to eighty percent. It seems that students' work during the project is much more important than their final product. The emphasis on process vs. product can also be seen in other books and articles, such as in Stater, Beckett, and Aufderhaar (2006) and Hunaiti, Grimaldi, Goven, Moothanah, and Martin (2010).

Doppelt, Y. (2003). Implementation and assessment of project-based learning in a flexible environment. *International Journal of Technology & Design Education*, 13(3), 255-272.

In this article, the writer reported on the implementation and results of a three-year PBL program in five high schools in Israel. It includes assessment guidelines which the teachers used during their program. PBL was applied to low-achieving students in math, English, and electrical and control system classes. A useful table captures the assessment criteria and percentage value for various assignments, such as writing a literature review, creating a portfolio, and making a presentation. The author illustrated assessment criteria in their PBL programs, but did not explain how the teachers assessed students' English language. In other words, this article focuses on how to evaluate whether PBL was successfully implemented in Israeli high schools. In

sum, this article shows readers a model for creating PBL curricula in EFL situations.

Egbert, J. (2005). *CALL essentials: Principles and practice in CALL classrooms*. Alexandria, Virginia: Teachers of English to Speakers of Other Languages.

Chapter 8 in this book provides an overview of assessment and explains steps and tools for assessment in CALL classes and projects, introducing useful websites and software. The author regarded assessment as one of the most important issues in both language teaching and language learning. Achievement assessment typically has two forms: summative evaluation and formative assessment, or instructional feedback. Teachers should make sure that classroom-based assessment is interactive, formative, and authentic. Assessment should be done in the same way students are taught, and it should create a learner-centered environment and enhance students' metacognitive awareness. To do so, the author emphasized that students should be encouraged to develop rubrics and to practice self-assessment. Steps to design rubrics are described as follows: review goals and objectives, consider a process and product, figure out major categories and subcategories, set up scales, write detailed descriptions for each ranking in the scale, review the rubric with goals and objectives, use it, and revise it.

This chapter is written for language teachers and introduces steps to develop rubrics precisely; therefore, it is very useful for language teachers who need specific information on how to implement assessment for PBL. Contrary to Simkins (2002), this author supported assessing content through students' products. The difference between these two perspectives for assessing content might be due to different emphases in curriculum design, namely, between a language focused curriculum and a content-rich curriculum. Whether to focus on content or language in assessment clearly depends on the type of curriculum one is dealing with.

Hunaiti, Z., Grimaldi, S., Goven, D., Mootanah, R., & Martin, L. (2010). Principles of assessment for project and research based learning. *International Journal of Educational Management*, 24(3), 189-203. doi: 10.1108/09513541011031574

This article outlines principles of assessment for PBL in previous studies, and the authors' own case study, for the art and design and science and technology fields at the undergraduate level. The underlying principle in this article is that learning is not a behaviorist but a constructivist system. Therefore, both formative assessments, such as self and peer evaluation and summative assessments on the work in the project, such as written reports and poster presentations, are important in assessment in PBL. The authors claimed that assessments strongly influenced the way of learning; therefore, teachers should keep this in mind in designing an assessment. One of the most important points in assessment is that teachers need to provide an atmosphere where students are willing to give and get feedback, improve their learning, and make their performance better. The authors stated that teachers should use three criteria to give successful feedback: "the first is providing a set of 'known standards,' the second is comparing the work to these standards, and the third and pivotal component is taking action to bridge the deficit between the first and second criteria"¹ (p. 193). Moreover, students' learning styles, strengths, and weaknesses are different; therefore, teachers need to be flexible in designing assessments and offer different types of assessments throughout a project in order to assess each individual's full potential. By having choices for setting up their own goals and criteria and reflecting on their own learning, students will be motivated to learn spontaneously and become lifelong learners.

The authors also reminded readers that like with all assessment forms, assessment in PBL should be "valid, reliable and transparent" (p. 194). Specifically, to make assessment transparent, the assessment tool needs to define learning outcomes and assessment criteria well. They also asserted that the teacher's observation or other alternative assessment techniques (rather than brief written reports),

is the best assessment type. Further, they also reminded teachers to use assessment to foster students' learning strategies. In sum, students need to be assessed by various means such as reflections on their own thinking and learning in different stages in the project, from the "planning stage" at the beginning, through its development, until its conclusion.

This article might be very useful for teachers who seek theoretical support for their beliefs. However, it does not include any detailed criteria or rubrics that teachers could modify and use in their classes. In this regard, this article is similar to Stater (2006), which also outlines the theoretical background for assessments in PBL. Unfortunately, the authors pointed out that reconstruction of the entire curriculum might be necessary to implement these principles in classes. Teachers in Japanese schools might need to consider if changing the curriculum is a possibility before trying to implement PBL fully. Otherwise, they might opt for implementing certain elements of PBL without a complete overhaul of their curriculum.

McDonald, B. (2008). Assessment for learning in project-based learning. *International Journal of Learning*, 14(10), 15-27.

The author tested her assessment models with her graduate students and discussed the results. She suggested that students should be assessed in various ways because students' learning styles, personalities, and individual difficulties vary. Assessment by self, peers, and supervisors are all needed in PBL. To illustrate her points, she provided several assessment models and rubric forms. In addition, she found that even though her students tended to rate themselves higher than the teacher's evaluations, the self-assessment forms were useful as guidance for the students' work during the projects and for their presentations. This suggests that a good assessment tool can become an effective learning tool. The article concludes that teachers need to consider their own teaching circumstances, as well as the project objectives in order to adjust the assessment models to their own classes or courses.

This article is the only one I reviewed that includes analytical assessment for self and

peer evaluation. It introduces self-assessment instruments, in which students use the rating scales set for each evaluation criteria, sum up the points, and then comment on the cumulative score. This appears to be a practical way for teachers as well as students to observe students' progress, especially on a large scale. However, this approach seems to contrast with a holistic perspective toward assessment in PBL, where students write comments on their progress for formative assessment as seen in Hunaiti, Grimaldi, Goven, Mootanah, and Martin (2010). Teachers will need to choose what is most suitable to their students and teaching circumstances.

Simkins, M., Cole, K., Tavalin, F., & Means, B. (2002). *Increasing student learning through multimedia projects*. Association for Supervision & Curriculum.

This book devotes one chapter to assessment in PBL using multimedia (Chapter 6). According to this chapter, there are three areas of assessment: "defining what "good" is, making the project good, and describing how well it turned out" (p. 85). In order to address these three areas, the authors introduce three activities for students. The first activity is "creating an assessment document" (pp. 86-88). Creating and developing checklists and rubrics that represent project requirements and learning goals is needed at this stage, and students can be involved in developing checklists through discussions with the teacher. Second is "a whole-class design review" (pp. 88-90). At this stage, students show their work in progress and ask other classmates for feedback. Here, there are two rules: not giving judgments, but instead making observations, and focusing on what the group is trying to do. At this second stage, students fill out a checklist and exchange feedback with suggestions and constructive criticism. The last activity is "content assessment" (pp. 90-91). The authors noted that it is difficult to assess students' understanding of content simply by looking at their final products. They suggested that teachers use different ways to assess students' content learning, such as by a traditional test, a written reflection, or an oral interview before or during students' development of their projects in order to check their knowledge and under-

standing of the topic. The authors concluded that teachers should create an assessment-planning matrix to decide when and how often students will need assessment activities.

This book is not written for second language teaching but for teaching native-English speaking students. However, it is suitable for any teachers who want to know how to start with assessment in PBL. It offers step-by-step instructions and example checklists that teachers can adapt to their own teaching. The reader might be surprised to see a traditional test being suggested among alternative ways to assess content. The authors suggested that the combination of PBL and other approaches or methods is necessary to check students' understanding of content, especially in "content-rich curriculum." What this means is that it might not be appropriate to assess students' knowledge of content with only the project's products. However, some other authors hold another view on assessing content in PBL. For example, the assessment tools introduced by Egbert (2005) measure *both* the content knowledge and the language forms that students gained in a given project.

Stater, T., Beckett, G. H., & Aufderhaar, C. (2006). Assessing projects as second language and content learning. In G. H. Beckett & P. C. Miller (Eds.). *Project-based second and foreign language education: Past, present, and future*, 241-259. Charlotte, NC: Information Age Publishing.

In Chapter 15, the authors explained that formative assessment of students' projects could show development of their language, content, and thinking skills. They also introduced theories behind assessment for PBL in second language and content learning, focusing on systematic functional linguistics (SFL) and Mohan's Knowledge Framework (KF).

Some academic students do not believe that PBL and formative assessment can assist in improving their language, content knowledge, and thinking skills. However, the "Project Framework" developed by Beckett and Slater (2005) would help such students see the value of PBL in these areas. Students can see that they have been developing their language, content and skills by "the planning graphic²

and the project diary,” which are two key components in the Project Framework.

The authors considered project-based learning to be *social practice* where students are socialized into content domains and language registers. Therefore, they suggested that teachers should know the Knowledge Framework, developed by Mohan (1986, 2001), to assess students’ language, content, and social skills. Social practice is “a combination of knowledge (theory) and action (practice), meaning that students participating in a social practice are required to *know* something and to *do* something” (p. 246). The KF comprises theory (classification, principles, and evaluation) and practice (description, sequence, and choice). That is, for example, students use the discourse of choice and evaluation when they get together to decide on a group research topic. Next, when they talk about methodology for the research, they use sequence discourse. Last, classification and description skills are used when they organize and define content about their research topic.

The authors also offered information about how to apply systematic functional linguistics (SFL) to the assessment of students’ development of language. SFL focuses on how speaker’s/writer’s choices of language to form parts of a sentence function to construct meanings according to his/her perspective and purpose. SFL also covers the use of grammatical metaphors,³ which are particularly relevant in academic settings. Since choice of grammatical metaphors can express different levels of abstractness, assessment can focus on students’ use of grammatical metaphors as indicators of their socialization into academic language.

In order to implement the assessment framework discussed above in classes and to collect evidence of students’ development for students and parents, the authors offered formative assessment tools. One is a decision-making chart, where a teacher gives scores to each student in each category, such as whether s/he offers *reasons* or *responses* during decision-making in a group. Another tool is a chart for evaluating language, which is based on SFL and the KF. A self-evaluation form is also provided, where students can keep track of the language that they are learning

throughout a project. The authors also offer two lists of key language features that teachers can use when they analyze students’ writing. Finally, the authors argued that teachers should use action research to develop assessments appropriate for students’ ages and context.

This chapter contains a comprehensive discussion of the theoretical background of assessment in PBL in academic settings. Teachers for second language and content learning who want to try to use assessment in PBL will find this chapter very useful and will be encouraged to carry out PBL in their class. However, it seems that even though the authors suggested that PBL could improve students’ language use, content knowledge, and thinking skills, they focused more on assessing the development of language use, thinking, and social skills than on content. Content appears to be only the background against which students’ language is evaluated. I believe that assessing content is an important part of PBL because students need to gain some knowledge as they develop language skills through a project. Overall, this chapter can be rather technical, but for those familiar with SFL or willing to learn its basic concepts, this chapter can be quite insightful and practical, as the suggested checklists are clear and ready to be used. Teachers can adapt these assessment models to fit their students and improve them through action research as the authors recommend.

Conclusion

The eight chapters and articles annotated above offer useful information for PBL classrooms in different teaching contexts, such as a content-rich curriculum or a language-focused curriculum. A common theme is that it is very important to assess not only students’ products but also their process in different ways. Products can be assessed by straightforward rubrics and processes by self-reflections and/or peer evaluations. Such process-oriented forms of assessment can motivate students to be active learners. Moreover, teacher observation during the project, particularly when applying systematic functional linguistics, can inform students about their language development, as mentioned in Stater,

Beckett, and Aufderhaar (2006). Products are also considered to be important and can be assessed by straightforward rubrics.

It is important to keep in mind that, in most PBL assessment forms, students are judged subjectively. Teachers working in large systems, such as those in public schools in Japan, might hesitate to use this form of assessments. These teachers may opt for scores on traditional paper tests to evaluate students because of the fear of being accountable for subjective grading. However, these teachers may come to realize that well-constructed rubrics and scoring scales can help teachers evaluate students in effective and consistent ways. As Hunaiti, Grimaldi, Goven,

Moothanah, and Martin (2010) pointed out, the curriculum in Japanese public schools might need to change in order to allow teachers to implement PBL and other communicative, integrated, and holistic approaches. Fortunately, the Ministry of Education in Japan has announced the promotion of communicative language learning and criterion-based evaluation in high schools from 2013. I believe that PBL could be one of the effective ways to realize communicative language learning. It is my hope that this annotated bibliography can encourage teachers to implement PBL in their classes and can inform them about where to find more information on assessment in PBL.

Notes

¹ By “known standards” the authors meant the objectives or outcomes that teachers want students to achieve and which have been shared with students.

² A planning graphic is a chart that shows the components of a project: language (function and forms), content, and skills. This chart is usually created by the teacher for students to use. See Beckett and Slater (2005) for more details about the Project Framework.

³ A grammatical metaphor is similar to a lexical metaphor but “instead of being a substitution of

one *word* for another... it is a substitution of one grammatical class, or one grammatical structure, by another” (Halliday & Martin, 1993, italics in original, cited in Slater et al., 2006, p. 247). Slater et al. cited the following example of a grammatical metaphor: “the clause *He persisted*, in which the process of *persisting* is realized as a verb (the typical or congruent pattern), can be changed to the grammatically metaphoric noun phrase *His persistence*, which deviates from the congruent pattern by realizing the process of *persisting* as a noun.” (p. 247)