



REL Appalachia Ask A REL Response

Data Use, Educator Effectiveness, Literacy
March 2018

Question:

What does the research say about project-based learning (PBL) and performance tasks for improving and assessing student learning in secondary school English language arts (ELA) and social studies classes?

Response:

Thank you for your request to our REL Reference Desk regarding evidence-based information about PBL and performance tasks in ELA and social studies. Ask A REL is a collaborative reference desk service provided by the 10 Regional Educational Laboratories (RELs) that, by design, functions much in the same way as a technical reference library. Ask A REL provides references, referrals, and brief responses in the form of citations in response to questions about available education research.

Following an established REL Appalachia research protocol, we searched for peer-reviewed articles and other research reports on PBL and performance tasks. We focused on identifying resources that address the use of PBL and performance tasks in ELA and social studies as it relates to student learning in secondary schools. While some study abstracts do not specifically name ELA or social studies content areas, the REL AP team verified that the reports contain content-specific results that are relevant to the question. The sources included ERIC and other federally funded databases and organizations, research institutions, academic research databases, and general Internet search engines. For more details, please see the methods section at the end of this document.

The research team did not evaluate the quality of the resources provided in this response; we offer them only for your reference. Also, the search included the most commonly used research databases and search engines to produce the references presented here, but the references are not necessarily comprehensive, and other relevant references and resources may exist.

References

Abbott, A. L., & Wren, D. G. (2016). Using performance task data to improve instruction. *Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 89(1), 38–45. Abstract retrieved from <http://eric.ed.gov/?id=EJ1094029>; full text available at

<http://www.vbcpsblogs.com/kaleidoscope/wp-content/uploads/2015/07/Clearing-House-Article.pdf>

From the abstract: “Two well-accepted ideas among educators are (a) performance assessment is an effective means of assessing higher-order thinking skills and (b) data-driven instruction planning is a valuable tool for optimizing student learning. This article describes a locally developed performance task (LDPT) designed to measure critical thinking, problem solving, and written communication skills of elementary and middle school students in a large school district. An investigation was conducted to determine how middle school teachers use LDPT responses to inform instruction and to ascertain how students are reflecting on their performance. Results from an analysis of documents indicated teachers were engaged in formal data-informed practices within professional learning communities. Moreover, educators examined student work samples and planned instruction based on student-specific needs. Strategies to reinforce proficiency in the skills assessed by the district’s LDPT are reported.”

Note. See page 41 for information about how this study addresses a range of subject areas including English and history.

Barnes, N. C., & Urbankowski, D. (2014). Planning, implementing, and assessing an authentic performance task in middle grades classrooms. *Middle School Journal*, 45(5), 17–24. Abstract retrieved from <http://eric.ed.gov/?id=EJ1026496>; full text available at https://www.montclair.edu/profilepages/media/6109/user/Barnes_Urbankowski_Middle_School_Journal.pdf

From the abstract: “As young adolescents, middle grades students experience a wide variety of changes related to their cognitive capabilities, social and emotional well-being, and use of self-regulation strategies. Authentic performance tasks challenge students to apply their knowledge and skills to realistic problems to create products or performances—consistent with AMLE’s position that successful middle grades curriculum is ‘challenging, exploratory, integrative, and relevant’ (National Middle School Association [now Association for Middle Level Education, AMLE], 2010). In this article, the authors discuss an authentic performance task used in several middle grades classrooms and offer general guidelines for middle school teachers to help them plan for, implement, and assess authentic performance tasks specifically designed to engage young adolescents and increase learning.”

Note. See page 21 for information about how this project is aligned with sixth grade Common Core State Standards in literacy.

Beck, S. W., Llosa, L., Black, K., & Trzeszkowski-Giese, A. (2015). Beyond the rubric: Think-alouds as diagnostic assessment tool for high school writing teachers. *Journal of Adolescent and Adult Literacy*, 58(8), 670–681. Abstract retrieved from <http://eric.ed.gov/?id=EJ1059120>

From the abstract: “In order to teach writing effectively, teachers need assessment tools that work for diagnostic purposes—tools that can help them identify students’ specific strengths and challenges with writing, as well as generate new ideas for instruction. This

study explored what 5 high school teachers (3 ELA and 2 ESL) learned about their students' strengths and challenges as writers from the students' performance on a think-aloud-protocol (TAP) Assessment, how this information differed from what they knew about the students as writers based only on their previous writing in class, and what ideas this new TAP-generated information gave them for instruction. We found that the TAP Assessment was especially useful in generating new information related to audience awareness, interpretation of the task, and self-evaluation. Teachers also offered creative suggestions for adapting the TAP Assessment for further use in their classrooms."

Condliffe, B. (2017). *Project-based learning: A literature review*. New York, NY: MDRC. Retrieved from <http://eric.ed.gov/?id=ED578933>

From the abstract: "The concept of project-based learning (PBL) has garnered wide support among a number of K–12 education policy advocates and funders. This working paper builds on and updates a seminal literature review of PBL published in 2000. Focused primarily on articles and studies that have emerged in the 17 years since then, the working paper discusses the principles that underlie PBL, how PBL has been used in K–12 settings, the challenges teachers have confronted in implementing it, how school and district factors influence its adoption, and what is known about its effectiveness in improving students' learning outcomes. PBL is grounded in cross-cutting 'design principles' often related to what is taught, how it is taught, and how students should be evaluated in a PBL classroom. PBL design principles emphasize the importance of the project as the central vehicle of instruction and of students as active participants in the construction of knowledge. There is little consensus among developers of PBL design principles, however, about how PBL fits in with other instructional methods, how long a PBL unit should last, the roles of student choice and collaborative learning, and how learning should be assessed. The lack of a uniform vision complicates efforts to determine whether PBL is being implemented with fidelity and to evaluate its effects. PBL can be introduced into classrooms in a number of ways: Teachers and schools can make use of externally developed PBL curricula, they can develop their own PBL approaches, or PBL can be part of a whole-school reform effort. Implementing PBL is often challenging. It requires that teachers modify their roles (from directors to facilitators of learning) and that they tolerate not only ambiguity but also more noise and movement in the classroom. Teachers must adopt new classroom management skills and learn how best to support their students in learning, using technology when appropriate. And they must believe that their students are fully capable of learning through this approach. Given these challenges, professional development—both initial training and continuing support—is likely to be essential to the successful implementation of PBL. The working paper suggests that the evidence for PBL's effectiveness in improving students' outcomes is 'promising but not proven.' Evaluations of its effectiveness have been hampered by the paucity of valid, reliable, and readily usable measures of the kinds of deeper learning and interpersonal and intrapersonal competencies that PBL aims to promote. Many studies, too, have used evaluation designs that leave open the possibility that factors other than PBL were responsible for the outcomes that were found. This said, some studies have found positive effects associated with the use of PBL curricula in science and social studies classes. Evidence for its effectiveness in math and literacy classes is more

limited. In particular, it has been noted that math teachers have found it difficult to integrate PBL into their instruction. Some studies in schools that follow PBL approaches have pointed to positive effects on students' engagement, motivation, and beliefs in their own efficacy, although the specific PBL model and the intensity of its use have varied across these schools. The working paper concludes with recommendations for advancing research and knowledge about PBL."

Duke, N. K., Halvorsen, A.-L., & Strachan, S. L. (2016). Project-based learning not just for STEM anymore. *Phi Delta Kappan*, 98(1), 14–19. Abstract retrieved from <http://eric.ed.gov/?id=EJ1112397>

From the abstract: "The popularity of project-based learning has been driven in part by a growing number of STEM schools and programs. But STEM subjects are not the only fertile ground for project-based learning (PBL). Social studies and literacy content, too, can be adapted into PBL units to benefit teaching and learning, the authors argue. They review key studies on PBL in social studies and literacy education, two examples of successful social studies/literacy PBL units, and conclude with tips for developing social studies and literacy projects in classrooms."

Hernandez-Ramos, P., & De La Paz, S. (2009). Learning history in middle school by designing multimedia in a project-based learning experience. *Journal of Research on Technology in Education*, 42(2), 51–173. Retrieved from <https://eric.ed.gov/?id=EJ868627>

From the abstract: "This article describes a study in which eighth grade students in one school learned to create multimedia mini-documentaries in a six-week history unit on early 19th-century U.S. history. The authors examined content knowledge tests, group projects, and attitude and opinion surveys to determine relative benefits for students who participated in a technology-assisted project-based learning experience, and contrasted their experiences to those of students who received a more traditional form of instruction. Results from content knowledge measures showed significant gains for students in the project-based learning condition as compared to students in the comparison school. Students' work in the intervention condition also revealed growth in their historical thinking skills, as many were able to grasp a fundamental understanding that history is more than presenting facts. Implications and suggestions for technology-enhanced project-based learning experiences are indicated."

Ilter, I. (2014). A Study on the efficacy of project-based learning approach on social studies education: Conceptual achievement and academic motivation. *Educational Research and Reviews*, 9(15), 487–497. Retrieved from <http://eric.ed.gov/?id=EJ1041259>

From the abstract: "In this research, an experimental study was carried out in social studies 4th grade students to develop students' conceptual achievement and motivation to succeed academically. The study aims to investigate the effectiveness of project-based learning (PBL) in social studies. A quasi-experimental research design (pre- and posttest) was used in the research. While the experimental group of students received an interactive social studies instruction including completely PBL in a team format activities, the control group students

received an instruction including direct instruction method (whole class teaching and individual work in the worksheet of the topics) in the 4th grade social studies curriculum for six weeks. The findings indicated a statistically significant difference in favor of the experimental group on the concept achievement and motivation. Students who participated in the PBL environments not only enriched and expanded their knowledge but also achieved a higher level of motivation than the control group. The PBL in a team format activities were provided to promote the experimental group students' motivation to succeed academically and to develop their conceptual achievement. The results demonstrated that the PBL improved students' understanding regarding social studies concepts and helped them achieve the behaviours which were aimed academically. The experimental group's intended behaviours in academic motivation at the beginning of the experimental treatment turned into performed behaviours at the end."

Kingsley, K. V., & Brinkerhoff, J. (2011). Web 2.0 tools for authentic instruction, learning, and assessment. *Social Studies and the Young Learner*, 23(3), 9–12. Abstract retrieved from <http://eric.ed.gov/?id=EJ926782>; full text available at <http://chnm.gmu.edu/tah-loudoun/usregions/files/2012/08/web2.0.pdf>

From the abstract: "Student-centered instruction incorporating authentic assessments can provide an alternative instructional model. Student-centered instruction generally requires learners to take on alternate roles such as that of historian, advocate or op-ed writer in order to complete a project. It is often both collaborative and constructivist in nature. In collaborative learning environments, group members identify the individual tasks and procedures required to complete an investigation or project, summarizing the work on a timeline that shows when each step must be completed. An ever-increasing array of Internet tools can help students tackle such projects by facilitating interaction, communication, and planning—and by allowing learners to present information effectively through multimedia products. Use of such tools can enhance motivation as well as provide opportunities for authentic assessment of student learning. In this article, the authors describe a variety of Web 2.0 tools that they have used as teacher educators and have seen effectively used by teachers in K–12 classrooms. They explain how these tools have helped students create knowledge to meet expected social studies outcomes while working together to investigate complex themes through the application of higher-order thinking skills."

Lafferty, K. E., Summers, A., Tanaka, S., & Cavanagh, J. (2016). Evaluating multiple perspectives: Approaching the synthesis task through assessing credibility. *Journal of Adolescent & Adult Literacy*, 59(5), 587–598. Abstract retrieved from <http://eric.ed.gov/?id=EJ1092951>

From the abstract: "Introduction of the Common Core State Standards and assessments like the synthesis performance task pose new challenges for secondary English teachers. As students of all ability levels engage with complex text and in tasks that target higher level cognitive skills, teachers need strategies to support their understanding. This article describes development and implementation of a differentiated unit for a synthesis performance task in three ninth-grade English classes. The unit's summative assessment

required students to evaluate the credibility of survivor accounts of the tragic events atop Mt. Everest in 1996, select the most credible account, and support their argument with evidence from multiple sources. This article includes descriptions of how the unit was differentiated for students of varying skill levels, examples of student work to illustrate how all were able to complete the synthesis task, and reflections for future practice.”

Parsons, S. A., Mallory, J. A., Parsons, A. W., Peters-Burton, E. E., & Burrowbridge, S. C. (2018). Sixth-grade students' engagement in academic tasks. *Journal of Education Research, 111*(2), 232–245. Abstract retrieved from: <http://eric.ed.gov/?id=EJ1167898>

From the abstract: “Student engagement is important for teachers and researchers because it is associated with student achievement. Guided by self-determination theory, this year-long case study used observations and interviews to examine six students' behavioral, affective, and cognitive engagement in integrated literacy and social studies tasks. Task differences were rated according to the degree to which tasks were authentic, collaborative, challenging, student directed, and sustained. Results demonstrated that, overall, students were more engaged in tasks that include a higher degree of these elements. In particular, students reported that they were engaged in tasks that included collaboration, new learning, and teacher support.”

Summers, E. J., & Dickinson, G. (2012). A longitudinal investigation of project-based instruction and student achievement in high school social studies. *Interdisciplinary Journal of Problem-based Learning, 6*(2), 82–103. Abstract retrieved from <http://eric.ed.gov/?id=EJ1058640>; full text available at <https://docs.lib.purdue.edu/cgi/viewcontent.cgi?referer=https://scholar.google.com/&httpsredir=1&article=1313&context=ijpbl>

From the abstract: “This longitudinal study focused on how project-based instruction (PBI) influenced secondary social studies students' academic achievement and promoted College and Career Readiness (CCR). We explored and compared student achievement in a PBI high school versus a traditional instruction high school within the same rural school district. While previous literature indicated that PBI involved more preparation time and a steeper learning curve for both teachers and students, we found that in high school social studies, students' achievement gains actualized within one year. PBI students outperformed peers who learned from a traditional curriculum in both social studies achievement and CCR preparedness.”

Uyar, M. Y., & Karakus, F. (2017). Social studies teachers' in-service training needs towards project tasks: A comparative case study. *Universal Journal of Education Research, 5*(12), 2137–2148. Retrieved from <http://eric.ed.gov/?id=EJ1161632>

From the abstract: “This study aims to determine in-service training needs of novice and professionally experienced social studies teachers regarding the planning, implementation and assessment processes of project tasks. The study was carried out using comparative case study from qualitative research patterns as base. Eight social studies teachers who were determined by means of extreme and deviant case sampling constitute the

participants of the study. Interview method was used in data collection and collected data were analyzed with inductive content analysis approach. As a result of analysis, it was determined that social studies teachers need an in-service training that includes basic features of project-based learning approach and context-based practices. In addition, it was found that teachers need to improve their knowledge and skills especially concerning 'taking student and curriculum characteristics into consideration in project processes,' 'adaptation of project processes into different education environments' and 'development and usage of objective assessment tools.'"

Additional Organizations to Consult

Edutopia: <https://www.edutopia.org/>

From the website: "Lucas Education Research conducts rigorous research in collaboration with university partners, research firms, and leading educators to identify and evaluate replicable practices at the student, teacher, and school level that profoundly and positively impact the course of learning and lifelong achievement."

Recommended links from Edutopia:

- Miller, A. (2014, April 15). Resources for Assessment in Project-Based Learning. Retrieved from <https://www.edutopia.org/pbl-assessment-resources>
- Vega, V. (2012, December 3). Project-Based Learning Research Review: Best Practices Across Disciplines. Retrieved from: <https://www.edutopia.org/pbl-research-practices-disciplines>

National Council for the Social Studies, Performance-Based Assessment Clearinghouse:
<https://www.socialstudies.org/resources/assessment>

From the website: "This NCSS Social Studies Performance-Based Assessment Clearinghouse has been created to provide

- a. examples of social studies performance-based assessment measures conducted at local and state levels
- b. research findings that support the use of performance-based assessment to inform instruction, and
- c. existing educational policies that can inform advocacy efforts for the inclusion of social studies performance-based assessment at the local, state and national level."

Performance Assessment Resource Bank:

<https://www.performanceassessmentresourcebank.org/about>

From the website: "The Performance Assessment Project supports states with integrating performance assessments into their systems of assessment, developing the capacity of educators to effectively use performance assessment, and designing policies to support these efforts."

Methods

Keywords and Search Strings

The following keywords and search strings were used to search the reference databases and other sources:

- (“Performance task” OR “Project-based learning” OR “Performance assessment” OR “Authentic learning task”) AND (ELA OR English OR social studies) AND (middle or secondary)

Databases and Resources

We searched ERIC, a free online library of more than 1.6 million citations of education research sponsored by the Institute of Education Sciences (IES), for relevant resources. Additionally, we searched the academic database ProQuest, Google Scholar, and the commercial search engine Google.

Reference Search and Selection Criteria

In reviewing resources, Reference Desk researchers consider—among other things—these four factors:

- Date of the publication: Searches cover the most current information (i.e., within the last ten years), except in the case of nationally known seminal resources.
- Search priorities of reference sources: Search priorities include IES, nationally funded, and certain other vetted sources known for strict attention to research protocols. Applicable resources must be publicly available online and in English.
- Methodology: The following methodological priorities/considerations guide the review and selection of the references: (a) study types—randomized controlled trials, quasi experiments, surveys, descriptive data analyses, literature reviews, policy briefs, etc., generally in this order; (b) target population, samples (representativeness of the target population, sample size, volunteered or randomly selected), study duration, etc.; (c) limitations, generalizability of the findings and conclusions, etc.
- Existing knowledge base: Vetted resources (e.g., peer-reviewed research journals) are the primary focus, but the research base is occasionally slim or nonexistent. In those cases, the best resources available may include, for example, reports, white papers, guides, reviews in non-peer-reviewed journals, newspaper articles, interviews with content specialists, and organization websites.

Resources included in this document were last accessed on February 22, 2018. URLs, descriptions, and content included here were current at that time.

This memorandum is one in a series of quick-turnaround responses to specific questions posed by education stakeholders in the Appalachia region (Kentucky, Tennessee, Virginia, and West Virginia), which is served by the Regional Educational Laboratory Appalachia (REL AP) at SRI International. This Ask A REL response was developed by REL AP under Contract ED-IES-17-C-0004 from the U.S. Department of Education, Institute of Education Sciences, administered by SRI International. The

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