# PROJECT-BASED LEARNING



## INTRODUCTION

This tip sheet discusses the characteristics of project-based learning and considerations for creating highly effective educational experiences for adult learners.

## A CLOSER LOOK

Project-based learning provides knowledge and skills through solving authentic, real-world problems. Research has shown that when learners can make choices within the scope of a project, the project has more personal significance and motivation and engagement grows, which leads to a more effective learning experience (Keller, 1987).

Project examples:
- Presentations
- Reports
- Portfolios
- Concept maps
- Other assessments

The instructor's role is to introduce the project scope and communicate expectations, but then act as a mentor, guiding learners along the way. Learners must take an active role by acquiring knowledge needed to complete their project and then teach through the content submitted in the final project.

**Project Characteristics**

Designed for



Individuals or Groups

Reverses instructor and learner roles



Instructor roles

Facilitator     Mentor     Coach



**Considerations for group work:** Group projects provide opportunities for students to develop soft skills such as communication, teamwork, and conflict management. If used in asynchronous learning, where learners do not have real-time interactions, it will be critical to strategically design the learning experience. Unique challenges and opportunities exist when individuals work alone as a group. Contracts may be useful for learners to clearly communicate and agree upon team and individual expectations, roles, and responsibilities. Projects do not have to be done in groups and can be designed for individuals instead.

**Clear course learning objectives and rubrics are key:** With any assessment, clear objectives and a rubric are essential for conveying expectations and describing what successful completion of the project looks like. Not only can a rubric improve the quality of the projects submitted, but it can also pay off dividends when it comes to grading. Rubrics can help reduce questions about why students received the grade they did, speed up the grading process, and ensure grading is carried out in a fair and equitable manner.

**Provide timely feedback:** Timely feedback should be given from both peers and the instructor. Using the same or similar rubric for both the peer-review process and final assessment can provide two main benefits: 1) it reduces time spent grading for the instructor and 2) it provides a low-stakes opportunity for learners to identify strengths and weaknesses in others' work that can be used to improve their own.

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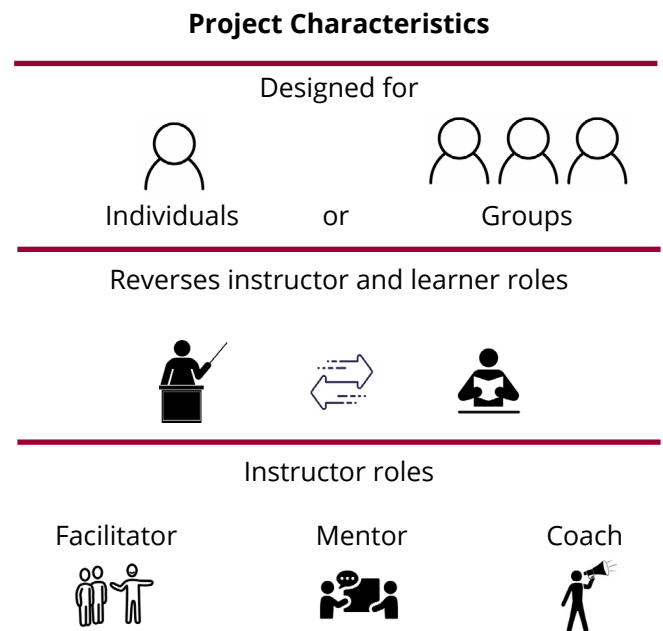
If you are reading this tip sheet, it is assumed your goal is to create an effective online course. Because the subject matter expertise for those reading this will vary widely, we will use this commonality as the basis for our example below. However, the same considerations can be made for any project-based learning experience, regardless of the subject matter or course learning objectives.

## EXAMPLE

You are enrolled in a 12-week course where the objective is to create an effective online course for adult learners.

Example projects might include:
- Choose a discipline within your area of expertise and design a 15-week online course on a specific topic.
- Enroll in an online course of your choosing, identify an opportunity to improve the course design, and using evidence-based research, come up with a solution to make improvements.
- Review the latest evidence-based research on increasing student engagement in online courses and create a 20-minute presentation discussing at least two problems and possible solutions.
- Reflect on an online course you have developed, identify opportunities for improvement using evidence-based research, and identify at least two revisions you would make.

Consider the examples above to design an engaging and accessible project-based learning experience for all:

**Time:** In the first example, assigning the project during the last few weeks of the course will not give students ample time to complete the project. Consider breaking the project into smaller pieces, spacing out deadlines, or reducing scope. *Ask yourself: Do learners have sufficient time to do what is being asked?*

**Cost:** In the second example, perhaps the individual could audit a course for free rather than enrolling and paying a fee. *Ask yourself: Is the project cost-prohibitive, or are there free or low-cost alternatives?*

**Technology:** In the third example, pretend you didn't have access to presentation software, what would you do? What if you had the software but didn't know how to use it? It's important to recognize that internet access and technology can create barriers and inequities between learners. *Ask yourself: Do learners have what they need to be successful?*

**Prior experience:** In the final example, what would you do if you had never developed an online course before? When designing your project, remember that learners will not have the same prior experiences and consider ways to make projects open to all learners. *Ask yourself: Can all learners participate in the project?*

In summary, project-based learning can provide a rich experience, boost motivation, and create active engagement in the learning process, but it requires intentional planning using these key considerations.

Keller, J. M. (1987). Development and use of the ARCS model of instructional design. *Journal of Instructional Development, 10,* Article 2. https://doi.org/10.1007/BF02905780

## ADDITIONAL RESOURCES
- A Step-by-Step Guide to the Best Projects by Edutopia
- Criteria for Effective Assessment in Project-Based Learning by Edutopia
- PBL Pedagogy and Educational Reform by Global Schoolhouse Network