for Project-based Learning
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Project-based Learning

What is project-based learning?

Project-based learning is a dynamic approach to teaching in which students explore real-world problems and challenges. With this type of active and engaged learning, students are inspired to obtain a deeper knowledge of the subjects they are studying and improve their attitudes towards learning.

This type of learning is a fundamental shift from the traditional classroom model where students are actively engaged in learning instead of passively listening to a teacher lecture. After completing a project, students remember what they learn and retain it longer than is often the case with traditional instruction. Students are requested to present their project to a public audience for evaluation. Advocates say the approach gives students a way to demonstrate they've learned their class content, while also honing their communication, collaboration and problem-solving skills – the kinds of abilities employers want to find in the workplace.

Project-based learning is often interdisciplinary in nature, meaning that students may complete a project that draws from both their history and science classes. Schools that practice the approach often have an emphasis on technology, which helps students research and design creative, professional-looking final projects. The teaching method is particularly popular in STEM schools.

Why is project-based learning important?

Project-based learning is important for a number of reasons:

1. Students retain concepts using real-world relevance and learn more effectively using project-based learning.
2. In the 21st century workplace, success requires more than basic knowledge and skills. Employees are expected to have good communication and analytical skills to have successful careers.
3. The Common Core and other present-day standards emphasize real-world application of knowledge and skills, and the development of the 21st century competencies such as critical thinking, communication, and collaboration. Project-based learning provides an effective way to address these new types of standards and assess students effectively on whether those standards were met.
4. Project-based learning uses technology which is an increasing part of our daily lives. With technology, teachers and students can connect with experts, partners, and audiences around the world using the internet, and use technology tools to find resources and information, create products, and collaborate more effectively.
5. Project-based learning allows teachers to work more closely with students doing high-quality, applied work, and enjoy learning alongside their peers.

Source: http://bie.org/about/why_pbl
Key aspects for project-based learning

Giving students the projects they like is giving them ownership of their own learning. The key aspects are summarized as below:

1. Project-based learning provides a real-world connection and is an authentic problem that drives curriculum. Real-world problems align with students’ interests.
2. Project-based activity provides core content for learning and rigor.
3. Collaboration should be carefully structured so that it is beneficial for learning in groups of three to four students, with diverse skill levels and interdependent roles.
4. Project-based learning is student driven and owned where the teacher is more of a facilitator and can redirect if necessary.
5. Multi-faceted assessment is an assessment that is integrated via an entire project-based activity. Assessment is continually occurring by periodic check-ins by the teacher throughout the activity, by students assessing themselves, and by presentations that encourage participation.

While GradPoint supports direct instruction for students through digital media, textbooks, and interactives we also recognize the tremendous value potential of project-based group work. To support this, GradPoint provides functionality for grouping students together to work on projects in shared spaces including: discussion boards and private wikis. GradPoint also supports student collaboration and group submission through integration with Google Drive.

**Discussion Boards**

Discussion boards enable students to collaborate on course topics with peers and their teachers.

The system assigns all students to one discussion group by default. Teachers can create custom groups and assign them manually or use one of several automatic assignment methods to assign the groups. Discussion boards can be created as either graded or non-graded activities. Below is an example of students collaborating on discussion topics.
Wikis

A Wiki is a document that can be collaboratively created and edited by those with access to it.

GradPoint wikis support the WikiPlex Syntax. Teachers can also view the History of changes which have been made to the Initial Content of the Wiki by clicking the History link next to the Edit link. This history shows who made the changes and when, as well as a side-by-side comparison showing the Wiki before and after the related change.

The History link in the Content Viewer of the Wiki displays edits made that provides a list of collaborating students.

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</tr>
</tbody>
</table>
Blogs

Blogs and journals are free response assignments where the student has an opportunity to express their thoughts on a particular topic or event. Blogs can be given a title, extract, and body. Teachers can add tag words for easy grouping. Classmates will see the blog entry, be able to comment on it, and thus collaborate.

Google Drive integration

Having a Google drive integration provides the following functions:

- Students can work collaboratively on their project in a shared google drive.
- Students can submit Google Drive documents (Google docs) with assignment submissions.

Groups

Teachers can create groups of students in courses and assign content by group.

Teachers can add assignments to courses using the course customization feature and include them in the final grade. Assignments can have instructions for the project, along with rubric for grading guidelines and other materials. GradPoint course work will thus be a central area where project information is centrally accessible, and project scores can be included in the final grade.

If there is a 1:5 initiative i.e. one computer for every 5 students, students can work in groups where one student will access the assignment online and drive the internet research and resource search. The rest of the group can work on paper mapping out the project and documenting project details in a collaborative manner.

Custom tabs

Administrators can add additional tabs to their GradPoint site. These tabs can be a link to Google hangout or to an online free whiteboard tool like Sketchlot. These tools can be collaboratively used by students in group projects. See Adding Custom Tabs on how to add a whiteboard to a site.
Some examples of project-based learning activities are:

- Students might be asked to use their math skills to put together a food budget for a wedding, or draw on their chemistry knowledge to advise a garden on what kind of soil balance it needs to grow a certain kind of vegetable. Students are often asked to present their final product to adults who have a vested interest in the results of the project—say, a farmer—who then assess the students and play a role in determining their grade.

- Another project example is using geometry skills to help plan out the number of parking spaces needed in a new school parking lot. Students can be asked to present their recommendations, and then school officials choose the best plan.

- Another project example is assuming your student has just started their first job. In planning their personal budget, you decide that you want to start immediately investing in your financial future. Students and a few of their peers with the same investment tendencies decide to research stocks in which they should invest. Students will be asked to present this information to their perspective financial planner so they can attain help as they begin an investment program.