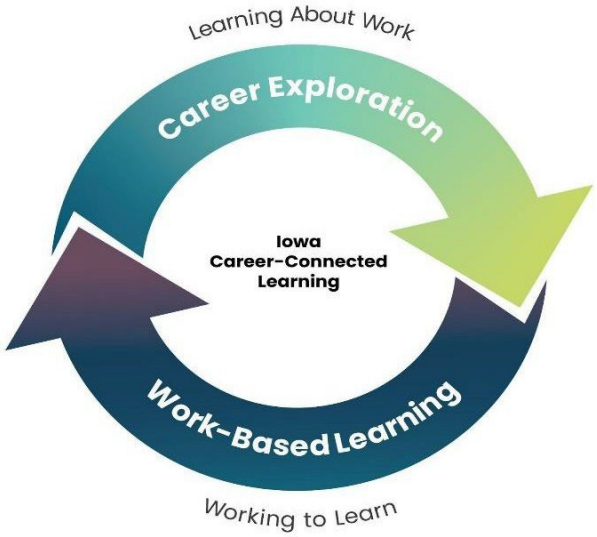
Sustained Project-Based Learning in Partnership with an Employer Toolkit

What is Sustained Project-Based Learning?



Sustained project-based learning projects are **work-based learning (WBL)** experiences that, in partnership with an employer, engage industry partners through meaningful projects completed by students. To be considered "sustained", these projects require industry partner interaction throughout the duration of the project, which shall include, but not be limited to:

- an initial partner needs assessment and consultation meeting,
- in-depth research into identified needs or issues,
- consistent engagement with partners for professional check-ins or updates,
- unveiling and review of a finished product recommendation or service portfolio, and
- corresponding project recap or required follow-up interactions to resolve issues or to assist with final implementation

A series of smaller projects will also be allowed, as long as they either build upon one another or involve the same business and industry representatives, thus reflecting a sustained relationship with consistent interactions and learning.

Developing a Sustained Project-Based Learning Project

Start with an Idea

- **Identify potential employer partners:** Research local employers whose work aligns with your curriculum's learning objectives. Use your own professional network, contact the Education Program Consultant for Work-Based Learning and Industry Recognized Credentials, reach out to Iowa Workforce Development, speak with other contacts at local school districts or talk to your RPP coordinator to find a business partner with a genuine interest in collaborating.
- **Establish clear goals:** Hold a meeting with your chosen employer partner to define the project's goals. Discuss expectations for student involvement, the employer's desired outcomes and the specific skills students will gain.
- **Create an agreement:** Solidify the employer partnership with a clear, written agreement. This document should outline the roles and responsibilities for both the school and the employer, detailing the project scope, timelines, communication protocols and any other issues.

Design the Project

- **Develop an authentic problem:** Work with your industry partner to create a "driving question" based on a real, current and unsolved real-world problem. It should be complex, multifaceted and not easily answered.
- **Connect the project to curriculum:** Ensure the project's learning objectives are clearly linked to your academic curriculum. This ensures students meet learning objectives while engaging in practical, real-world work.

- **Scaffold student learning:** Identify the knowledge and skills students need to complete the project and organize the necessary resources. This may involve tutorials, workshops, guided research, etc. to ensure students have the foundation to succeed.

Implementing a Sustained Project-Based Learning Project

Launch the Project

- **Introduce the project:** Have the employer partner kick off the project by presenting the driving question to the class. This makes the project feel more authentic and relevant to students.
- **Provide guidance:** As students begin their work, act as a facilitator, guiding the inquiry process and helping students manage their progress.

Integrate Employer Involvement

- **Establish regular check-ins:** Maintain regular contact with students and employer mentors to monitor progress. Employer feedback is crucial for keeping students on track and ensuring the project remains relevant.
- **Provide expertise:** Arrange for the employer partner to offer expert consultations or in-class support. Learning a skill directly from a professional in the field offers an authentic learning experience.
- **Schedule a progress evaluation:** Around the midpoint, organize a progress evaluation session where students can present their initial solutions to the employer partner. This provides an opportunity for invaluable feedback before the final product is developed.

Support Student Process

- **Encourage self-direction:** Give students autonomy and choice in how they approach the problem, which provides the opportunity for the development of problem-solving skills.
- **Build collaboration skills:** Structure groups to require teamwork and interdependence. Consider using strategies like assigning rotating team roles to help students build communication and conflict-resolution skills.

Evaluating a Sustained Project-Based Learning Project

Sharing the Completed Project

- **Present to the employer partner:** At the completion of the project, have students present their final product or solution to they employer partner and/or other community members. This provides a real-world audience beyond just the classroom.
- **Celebrate achievements:** Recognize the students' hard work and the value their solutions bring to the employer partner.

Evaluate and Reflect on the Experience

- **Gather feedback:** Collect feedback from the employer on the quality of the students' work and the process. Also, have students self-assess their own performance and learning.
- **Conduct reflection sessions:** Dedicate time for students to reflect on what went well, what challenges they faced and what they would do differently. This helps reinforce the learning process.
- **Measure return on investment (ROI):** As a final step for the school and the employer, assess how the project met its initial goals. This helps evaluate the program's success and also helps identify areas for improvement in future collaborations.

Sustained Project-Based Learning Examples

Marketing Campaign Development

- **The Challenge:** The small local business is looking to attract new customers but lacks a digital marketing strategy.
- **Student Project:** Students work in teams to research the local market and the business's target audience, analyze its current marketing efforts and develop a comprehensive social media marketing plan. They create sample content, propose a social media posting schedule and identify key performance indicators to track success.
- **Employer Collaboration:** The business owner or staff member participates in a project kick-off meeting to present the challenge, acts as a point of contact for students and serves as a client for the final presentations. The business contact provides authentic, real-world feedback on the students' proposed strategies.

Computer Science & Web Development

- **The Challenge:** A local community organization needs a website for their organization.
- **Student Project:** Students will work in teams to design and develop a functional website for the local community organization by meeting with team members from the organization to understand the needs of the website, write code for the website and test its functionality before presenting the final product.
- **Employer Collaboration:** The local community organization participates in a project kick-off meeting to present the challenge, acts as a point of contact for students and serves as a client for the final presentations.

Catering Project

- **The Challenge:** Develop a catering menu and business plan for a local, family-owned catering business that needs assistance with food sourcing and menu design.
- **Student Project:** Students will work together to create a budget for a specific type of event (e.g., wedding reception, retirement party) and then design a menu that is both cost-effective and appealing and present the complete plan to the employer for review.
- **Employer Collaboration:** A local caterer meets with the students to provide on-going feedback on menu design and food selection, while maintaining a realistic budget and adhering to food safety regulations.

Manufacturing Prototype Program

- **The Challenge:** The school board is looking to create new signage for the newly renovated athletic complex.
- **Student Project:** In consultation with the school board, students develop renderings, create mock ups and, upon approval, design the signage through CAD programming and then CNC plasma cutting to produce the signage.
- **Employer Collaboration:** The school board acts as the client and consults with the students on the types of signage needed, including reviewing and approving renderings and mock ups, and working with students to install signage upon completion.

Sustainable Irrigation System Design Project

- **The Challenge:** A local greenhouse is experiencing high water costs and wants to implement a more sustainable irrigation system that conserves water while maintaining plant health.

- **Student Project:** Students will work in teams to research different types of sustainable irrigation systems, analyze the greenhouse's current water usage and identify areas for improvement. Students will design a new irrigation system layout and present their proposal to the greenhouse owner.
- **Employer Collaboration:** The local greenhouse owner provides details on the facility's current irrigation setup, budget constraints and specific plant seeds, while also serving as a point of contact for students as they develop their plans and consult on findings and provide feedback as needed.

Reporting Sustained Project-Based Learning

The Department will rely on multiple specific data points to accurately collect and report work-based learning experiences for students across the state. Data will be used to calculate the work-based learning sub-measure of the Postsecondary Readiness Accountability Measure for the Every Student Succeeds Act (ESSA) and School Performance Profiles (percentage of students participating in work-based learning while in high school). Data will also be used to determine the Perkins Secondary Career and Technical Education (CTE) 5S3 work-based learning indicator of performance (percentage of CTE concentrators graduating from high school having participated in work-based learning). A CTE concentrator is defined in Iowa as a secondary student who has earned credit for two (2.0) or more Carnegie Units within a state-approved CTE program (e.g., health science).

While each of the following data points provides value, the combination of all three for each course is ideal to ensure the most accurate work-based learning data collection, analysis and reporting by Department staff. All of these data elements will be provided to the Department through the Winter collection of the Student Reporting in Iowa (SRI) data during the time period of December-January of each academic year:

1. School Courses for the Exchange of Data (SCED) Codes
    a. The SCED code initiative is a voluntary and nationally accepted common classification system for K-12 school courses that allows for an easier and more efficient process to collect, analyze and report information on various aspects of our education system. SCED is based on a 5-digit coding structure that provides a basis for classifying course content, while additional elements and attributes can provide descriptive information about each course.
        i. A few Iowa-specific SCED codes have been added to provide additional distinction in work-based learning course offerings.
2. Embedded Work-Based Learning Indicator
    a. An embedded work-based learning indicator was added starting in the 2022-2023 academic year to assist districts with clarifying which type of experience is being offered to students, as well as situations where the work-based learning experience may not be the primary focus. This is especially important for courses that may not be classified as CTE, but still include an opportunity for students to benefit from work-based learning experiences. Refer to Appendix B for additional information on this measure.
        i. In order to qualify for usage, all students within the course must be provided with the reported experience, not just a select few (i.e., 100% of students take part in sustained project-based learning in partnerships with an employer, not just a few, in order for the course to be considered as embedding qualifying work-based learning).
3. Course Titles and Keywords
    a. With Iowa's expanding offerings of different work-based learning courses, specific course names/titles and keywords will be used to recognize districts offering quality work-based learning experiences.
        i. Course titles and keywords are used primarily to review data records and provide targeted guidance to districts who may need to correct or modify SCED codes or embedded work-based learning indicators used in future data file submissions.

Reminder: All three of these data points should be used in combination with one another for each course, when appropriate, to ensure the most accurate data collection, analysis and reporting by Department staff.

A fourth measure is available for districts wanting to count students who have completed work-based learning experiences that are not connected to course SCED codes or any Embedded WBL Indicator codes referenced in this resource.

4. Individual Work-Based Learning Code
    a. Districts can manually flag individual student(s) who participated in a qualified work-based learning experience within their student information system (SIS). This field is specifically designed for students who completed non-credit WBL or WBL not connected to SCED codes or Embedded WBL Indicator codes referenced in this resource. Districts need to manually review and make appropriate changes to this data field to ensure accurate coding and reporting by the end of June each year. Refer to Appendix C in the Work-based Learning Course Name and Coding document for additional information on this measure.

Course/Content Area	Keyword(s) to Include in Course Title	SCED Codes	Embedded Work-Based Learning Indicator
Information Technology	"Projects" or "PBL"	10994	11
Communication and Audio/Visual Technology	"Projects" or "PBL"	11994	11
Business and Marketing	"Projects" or "PBL"	12994	11
Manufacturing	"Projects" or "PBL"	13994	11
Health Care Sciences	"Projects" or "PBL"	14994	11
Public, Protective and Government Services	"Projects" or "PBL"	15994	11
Hospitality and Tourism	"Projects" or "PBL"	16994	11
Architecture and Construction	"Projects" or "PBL"	17994	11
Agriculture, Food and Natural Resources	"Projects" or "PBL"	18994	11
Family and Consumer Sciences (Human Services)	"Projects" or "PBL"	19994	11
Transportation, Distribution and Logistics	"Projects" or "PBL"	20994	11
Engineering and Technology	"Projects" or "PBL"	21994	11
Miscellaneous	"Projects" or "PBL"	22901*	11

Additional Resources and Support

Districts are encouraged to contact a Department representative with any additional questions or to set up a consultation at any point during the year. A wide range of robust and insightful guides, toolkits and other resources are also available to assist stakeholders in this important work at https://educate.iowa.gov/higher-ed/cte/iowa-quality/career-connected-learning.