Implementing High-Quality Work-Based Learning (WBL)

Virginia Technology & Engineering Education Association (VTEEA)
Introductions

Current regional assignments:

- Nikki Finley - Regions 1, 2, and 8
- Stefanie Ells - Regions 3, 4, and 5
- Erika Temple - Regions 6 and 7
Session Overview

WHAT
Identify **WHAT** makes a Work-Based Learning (WBL) experience high-quality.

WHY
Identify reasons **WHY** WBL is important.

HOW
Examine best practices for **HOW** to implement high-quality WBL.
What is High-Quality WBL?
What is High-Quality Work-Based Learning?

Virginia’s Career and Technical Education (CTE) programs include:

- Classroom instruction related to the WBL experience
- Participation in Career and Technical Student Organizations (CTSOs)
- School-coordinated Work-Based Learning (WBL)
  - related to students’ career goals and/or interests
  - integrated with instruction
  - performed in partnership with local businesses and organizations
High-Quality WBL Experiences

- Job Shadowing
- Service Learning
- Mentorship
- Internship
- Cooperative Education
- Supervised Agricultural Experience*
  *Added July 1, 2021
- Entrepreneurship
- Externship
- School-Based Enterprise
- Registered Apprenticeship
- Youth Registered Apprenticeship
- Clinical Experience

Grades 6-12

Grades 9-12
Why is High-Quality WBL Important?
Profile of a Virginia Graduate

Align knowledge, skills, and personal interests with career opportunities

Achieve and apply appropriate academic and technical knowledge

Build connections and value interactions with diverse communities

Attain and demonstrate productive workplace skills, qualities, and behaviors

Content Knowledge

Career Planning

Workplace Skills

Community & Civic Responsibility
### Virginia’s 5 Cs

#### WBL Reinforces Virginia’s 5 Cs

<table>
<thead>
<tr>
<th></th>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Investigation/Research</td>
<td><strong>Critical thinking</strong> to identify and analyze community needs.</td>
</tr>
<tr>
<td>2</td>
<td>Planning/Preparation</td>
<td><strong>Collaboration</strong> with community partners to create a service plan that addresses identified community needs.</td>
</tr>
<tr>
<td>3</td>
<td>Action</td>
<td><strong>Citizenship</strong> through service that enhances social responsibility.</td>
</tr>
<tr>
<td>4</td>
<td>Reflection</td>
<td><strong>Communication Skills</strong> are strengthened through reflection on lessons learned through participation in the service learning project.</td>
</tr>
<tr>
<td>5</td>
<td>Demonstration/Celebration</td>
<td><strong>Creative</strong> demonstrations for an important event to reflect on insights and outcomes to the community.</td>
</tr>
</tbody>
</table>
State Requirements

Graduation Requirements
Per Code of Virginia § 22.1-253.13:4, students are required to
(i) complete an Advanced Placement, honors, International Baccalaureate, or dual enrollment course;
(ii) complete a high-quality work-based learning experience, as defined by the Board; or
(iii) earn a career and technical education credential that has been approved by the Board.

College, Career and Civic Readiness Index (CCCRI)
Beginning in 2022, school accreditation will be measured on graduating seniors having completed at least ONE of the following during high school:
- Receive credit for advanced coursework (AP/IB/DE)
- Be a CTE completer and earn a CTE credential
- Complete a work-based learning experience
Student Benefits

- Employability and technical skills
- Social capital
- Positive relationships and networking
- Experience workplace environments
- Academic excellence and opportunities for advancement
- Pathways to careers
Business Partner Benefits

- Contribute to economic growth
- Increase workforce diversity and inclusion
- Enhance educational curriculum
- Prepare youth for evolving workforce, by providing employment opportunities
- Meet current workforce needs
- Establish a network with other businesses/employers
How can we implement High-Quality WBL?
How can we implement High-Quality WBL?

Ensure your WBL program meets high-quality standards

- (3) criteria from WBL definition
- Training agreements and training plan
- Labor laws and regulations
- Building and sustaining business partnerships
- Types and examples of High-Quality WBL
- Grade level or hour minimum requirements
- Resources - Work-Based Learning Guide & labor market information
Training Agreement

- A written commitment made by the student, parent/guardian, WBL coordinator/instructor, and employer that outlines the roles and responsibilities of each stakeholder
- Required to be on file for each student for **ALL** WBL experiences
- Provides protection to the WBL coordinator and school officials against accusations of negligence and liability claims
- May be modified as appropriate by each program area or school division, but must include the Virginia Department of Labor and Industry (VDOLI) requirements (asterisked and italicized items) found in the templates provided in the WBL Guide and listed on the next slide
Student agrees to:
- Conform to the rules and regulations, including all safety requirements and acceptable use policies, of the workplace. *

Employer agrees to:
- Provide organized and progressive occupational experiences as outlined in the training plan and to expose students to as many aspects of the operation as possible. *
- Assist students in completing job-related projects and to provide available instructional materials and occupational guidance. *
- Adhere to federal and state regulations regarding labor laws, safety regulations, tax credits, and other applicable legislation. *
- Provide work experiences that shall be intermittent and for short periods of time and be under the direct supervision of a qualified and experienced person. *
- Ensure that the work of the student learner in the occupations declared particularly hazardous shall be incidental to the training. *
- Correlate the safety instruction given by the school with the on-the-job training. *
- Adhere to nondiscrimination on the basis of race, color, national origin, sex, disability or age. *

Parent/Guardian Agrees to:
- Assume responsibility for the safety of students from the time they leave school until they report to the job and from the time they leave the job until they arrive at home. *

WBL Coordinator (Agriculture Instructor) agrees to:
- Provide related classroom instruction, including safety procedures. *
- Assume responsibility for initiating and developing individual training plans and ensuring that each plan is followed until it is mutually agreed to modify it. *
- Cooperate with employers in developing appropriate training activities related to students’ career interests. *
- Make periodic visits to training stations to observe students, to consult with employers, and to assist students with any problems. *
Training Plan

● Identifies the classroom instruction and workplace training that will contribute to the employability and ongoing development of a student

● Required for Internship, Entrepreneurship, and Cooperative Education

● Prepared jointly by the WBL coordinator, teacher, employer, and student

● Development is continuous and is revised according to the changing needs of the employer

● Serves as a record of student progress and documentation for evaluation
Federal and State Labor Regulations

All WBL programs must abide by applicable child labor and workplace safety regulations.

- The most strict law applies between the state and federal law
  - U.S. Department of Labor, Employment Standards Administration, Wage and Hour Division
  - Virginia Department of Labor and Industry (VDOLI), Labor and Employment Law
- Students are required to obtain all safety and/or OSHA certifications to perform the necessary job functions included within the WBL experience.
- The training plan should meet all U.S. Department of Labor guidelines for student learner exemptions from Hazardous Occupations; see Child Labor Bulletin 101 and 102, and comparison guidelines on the VDOE website.
Federal and State Labor Regulations

Additional resources:

- U.S. Department of Labor, Employment Standards Administration, Wage and Hour Division
  - Federal Child Labor Laws Webinar from Experience Works Conference:
- Virginia Department of Labor and Industry (VDOLI), Labor and Employment Law
  - Virginia Child Labor Laws Webinar from Experience Works Conference:
Building and Sustaining Business Partnerships

Challenges

Lack of communication and effective engagement
- Failure to speak the same language
- Do not see value (time, cost, poor outcomes outweigh potential benefits)

Strategies

- Understand WHY an employer may want to engage and meet that need
- Contact intermediaries who can aggregate services and translate between stakeholders
- Create a social media footprint and connect to local news outlets to share WBL updates and success stories
- Create an introduction letter to send/email to prospective business partners
- Conduct an appreciation lunch and learn
- Host a WBL workshop session
- Include a link on your division website for businesses to connect easily
Building and Sustaining Business Partnerships

Challenges

- Lack of sufficient resources and time
- Data collection and evaluation
- Lack of flexibility
- Scale - many students need placements
- Transportation
- Competition for employers

Strategies

- Identify WBL point of contact
- Build upon and model existing programs
- Capitalize on innovative solutions (i.e., virtual environment)
- Collaborate regionally with other school divisions and organizations
- Form an alumni group of former students to help support WBL
- Enlist the Advisory Council/Committee in finding suitable work-based learning opportunities for students
Building and Sustaining Business Partnerships

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concerns from business partners</td>
<td>● Contact intermediaries</td>
</tr>
<tr>
<td>● Wary of collaboration</td>
<td>● Understand labor and safety laws for students under 18</td>
</tr>
<tr>
<td>● Workplace safety and liability</td>
<td>● Collaborate with special education points of contact and transitional services</td>
</tr>
<tr>
<td>● Difficulty securing appropriate placements for special student populations</td>
<td>● Develop deeper involvement (on-going program, involved in curriculum or pathway design/multiple activities, direct pipeline to industry partnerships)</td>
</tr>
</tbody>
</table>

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Examples and Resources for WBL Experiences
Job Shadowing

- Job Shadows place students in workplaces to interact with and observe one or more employees.
- May be in person, virtual, a one-on-one interaction or a group experience.
- Does **not count** towards CCCRI or graduation requirements.

**Example:** A student observes an architect at a local architectural design company.

<table>
<thead>
<tr>
<th>WBL Experience</th>
<th>Training agreement</th>
<th>Training plan</th>
<th>Suggested Grade levels</th>
<th>Related CTE instruction</th>
<th>Minimum duration</th>
<th>Paid option</th>
<th>Meets Graduation Req</th>
<th>Credit option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Shadowing</td>
<td>✅</td>
<td>✗</td>
<td>6-12</td>
<td>✅</td>
<td>Varies by type</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>
**Externship**

- An extended job shadowing experience designed so students may ask questions, observe, and get a feel for the work environment
- Must be a minimum of 40 hours total
- Work is not delegated and projects are not assigned

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**Example:** A student observes a building inspector conducting inspections for 1-2 hours per week throughout the year.

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<th>Credit option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Externship</td>
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<td>-</td>
<td>6-12</td>
<td>✓</td>
<td>40 hours</td>
<td>-</td>
<td>✓</td>
<td>-</td>
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</table>
Service Learning

- Goes beyond community service to identify an interest or community need and develop and complete a project
- Structured activities before, during, and after the experience by the student to reflect and self-assess
- Can take place in conjunction with CTSO experiences
- Must meet all eight (8) standards from the National Youth Leadership Council

Example: Students in an Engineering Studies class identify a need, conduct research, and design a product to solve the problem.

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<th>Credit option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Learning</td>
<td>✅</td>
<td>✖️</td>
<td>6-12</td>
<td>✅</td>
<td>Varies by type</td>
<td>✖️</td>
<td>✅</td>
<td>✖️</td>
</tr>
</tbody>
</table>
Service Learning vs. Community Service

Service Learning is High-Quality Work-Based Learning

- Students identify an interest and a community need.
- Students develop and complete a service project addressing the community need.
- Students complete structured activities before, during, and after the experience.
- Students reflect and self-assess.

Community Service is not High-Quality Work-Based Learning

- The community need may already be established.
- Students participate in voluntary assignments and activities to serve organizations and/or individuals within the community.
- Community service may or may not align with school-based instruction.
Mentorship

- Pairs student with an industry professional for a long-term relationship focused on growth and development as the student learns about a particular industry
- May be completed on a one-on-one, small group, or virtual basis
- Documented hours working with a mentor may include: discussion/reflection, observation of workplace, collaborative research and exploration of the career field

**Example:** A Game Design and Development student participates in a mentorship with a game designer to learn more about the career.

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<th>Credit option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentorship</td>
<td>✅</td>
<td>⬛</td>
<td>6-12</td>
<td>✅</td>
<td>Course duration or 140 hours for 0.5 credit</td>
<td>⬛</td>
<td>Mentorships over 140 hours</td>
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</tbody>
</table>
School-Based Enterprise

- An on-going student managed, entrepreneurial operation within a school setting
- Provides goods and services that meet the needs of the school’s target markets
- Is cooperative with management decisions made by the students

Example: Students work in the Technology Student Association (TSA) school store selling manufactured products to students, school staff, and the community.

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<th>Paid option</th>
<th>Meets Graduation Req</th>
<th>Credit option</th>
</tr>
</thead>
<tbody>
<tr>
<td>School-Based Enterprise</td>
<td>✔️</td>
<td>✖️</td>
<td>6-12</td>
<td>✔️</td>
<td>Course duration</td>
<td>✔️</td>
<td>✔️</td>
<td>✖️</td>
</tr>
</tbody>
</table>
Internship

- The student is placed in a real workplace environment to develop and practice career-related knowledge and skills.
- Student actively completes tasks and job duties related to the workplace following a training plan developed jointly by the student, WBL instructor and employer.

Example: Student is employed as an assistant to a software developer.

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<th>Meets Graduation Req</th>
<th>Credit option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internship</td>
<td>✓</td>
<td>✓</td>
<td>11-12</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Entrepreneurship

- Students plans, implements, operates, and assumes financial risks in a business that produces goods or delivers services.
- Student owns the business assets and keeps financial records.
- Business must comply with all the local, state, and federal regulations including acquiring all necessary licenses and permits.

Example: Student has started a small manufacturing company and manages aspects of the company.

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<th>Related CTE instruction</th>
<th>Minimum duration</th>
<th>Paid option</th>
<th>Meets Graduation Req</th>
<th>Credit option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurship</td>
<td>✅</td>
<td>✅</td>
<td>11-12</td>
<td>✅</td>
<td>Course duration or 280 hours for 1 credit option*</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
</tbody>
</table>

*Updated July 1, 2021
Is this an example of High-Quality WBL?

Students actively participate in the management and operations of the Technology Student Association (TSA) school store. Students learn about topics and careers in engineering, manufacturing, and software development and rotate through the jobs to learn the skills of each position. The instructor of the course manages all of the funds, communicates with vendors to purchase supplies, and serves in a leadership capacity as the sole decision-maker of the store operations.

No, this is not a High-Quality example. See the correction on the next slide.
Revised Example

Students actively participate in the management and operations of the Technology Student Association (TSA) school store. Students learn about topics and careers in engineering, manufacturing, and software development and rotate through the jobs to learn the skills of each position. The instructor of the course STUDENTS manage the funds, communicate with vendors to purchase supplies, and serve in leadership roles as decision-makers of the store operations. The instructor serves as a facilitator to the school-based enterprise, supervising the students and providing feedback to ensure safe and efficient operation of the SBE.

Yes! This is an example of High-Quality WBL.
Is this an example of High-Quality WBL?

A student enrolled in an Engineering Computer Science program creates a business plan and develops software to help students complete their homework. The student purchases the equipment and supplies required to develop and sell software. Monthly financial records are kept by the student and analyzed to determine productivity and profitability. The student submits reports and meets with the course instructor for feedback on the entrepreneurial experience.

Yes! This is an example of High-Quality WBL.
Work-Based Learning (WBL) Guide

The WBL guide provides definitions, roles, and responsibilities for various stakeholders, and sample forms for use in implementing high-quality WBL.

Examples of information located in the WBL guide:

- Guidelines for implementing the twelve (12) WBL methods practiced in Virginia
- Resources pertaining to federal and state labor regulations
- WBL Coordinator Qualifications
- Recommendations for promoting WBL programs
- The importance of WBL documents
# Labor Market Information

## What is Labor Market Information (LMI)?

It includes all quantitative or qualitative data and analysis related to employment and the workforce.

## Why is LMI Important?

- Decisions for CTE programs
- Education and training offerings
- Career planning and preparation
- Identify in-demand occupations
- Employment projections
- Job search opportunities
## Employment Projection for Selected Technology and Engineering Occupations

<table>
<thead>
<tr>
<th>Occupational Title</th>
<th>Employment: 2019</th>
<th>Employment: 2029</th>
<th>Growth %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture &amp; Engineering Management</td>
<td>198,100</td>
<td>204,043</td>
<td>3%</td>
</tr>
<tr>
<td>Industrial Engineers</td>
<td>295,800</td>
<td>325,380</td>
<td>10%</td>
</tr>
<tr>
<td>Construction &amp; Building Inspectors</td>
<td>120,800</td>
<td>124,424</td>
<td>3%</td>
</tr>
<tr>
<td>Web Developers &amp; Digital Designers</td>
<td>174,300</td>
<td>188,244</td>
<td>8%</td>
</tr>
</tbody>
</table>

What trends do we currently see? What trends may we anticipate?

The expected growth rate in the Architecture and Construction Career Cluster is 8% by 2026, which is slightly lower than the growth rate for the Commonwealth as a whole.

The overall expected growth rate for the Manufacturing Career Cluster is 1% by 2026, which is the lowest among all clusters in Virginia. However, despite this slow growth across the Commonwealth, some manufacturing occupations are projected to grow in Northern Virginia (8%) and Hampton Roads (5%).

By 2026, the STEM cluster is expected to employ about 76,000 workers, a 12% growth over the decade in the Commonwealth.

The Information Technology Cluster is projected to experience a 17% employment growth by 2026 - the third highest rate among all clusters.

*Link to Architecture and Construction, Manufacturing, Technology, and STEM Cluster Reports  
*Link to Virginia ACTE Fact Sheet
Jobs EQ - Statewide Data Initiative

Provides online access via Chmura to regional information about:

- Demographics
- Employment
- Wage
- Job postings data
- Occupations
- Industries
- Skills
- Degrees/awards (postsecondary completions data from IPEDS)

Each school division has received one license to access statewide data (down to a metro-area, county, and zip code, plus a 75-mile radius around the states border.)
Contact

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