Work-Based Learning Experiences for High School Students with Autism Spectrum Disorder (ASD)

DCDT 2015 International Conference
11/5/15
Portland, OR
Overview

- Needs of students with ASD approaching adulthood
- What are Work-Based Learning Experiences?
- Applications
- Projects implementing WBLE
- Suggestions
- Limitations
- Implications for Research and Practice
## Prevalence of Autism Spectrum Disorder (ASD)

<table>
<thead>
<tr>
<th>Surveillance Year</th>
<th>1 in ____</th>
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</thead>
<tbody>
<tr>
<td>2000</td>
<td>150</td>
</tr>
<tr>
<td>2002</td>
<td>150</td>
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<tr>
<td>2004</td>
<td>125</td>
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<tr>
<td>2006</td>
<td>110</td>
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<tr>
<td>2008</td>
<td>88</td>
</tr>
<tr>
<td>2010</td>
<td>68</td>
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</table>

(CDC, 2014)
In 2012, 50,000 individuals with ASD turned 18 years old in the United States. (Shattuck et al., 2012)
Full-Time Employment (21-25 Year Olds)

(NLTS2 Study; Roux et al., 2013)
Postsecondary Engagement

Engagement lower than other disability categories across the board in:

- Any vocational or technical education: 9.3%
- Any 2-year college: 28.0%
- Any 4-year college: 12.1%
- Any paid employment: 55.1%
- No participation: 34.9%

(Shattuck et al., 2012)
How do we prepare students with ASD for employment after high school?
Work-Based Learning Experiences

- Identified as a predictor of post-school success
- Organized and structured within Richard Luecking’s 2009 *The Way to Work*
- Planned to assist students in developing skills and an increased knowledge of their needs and strengths
- Support a student’s postsecondary goals regarding college and careers

(Test, Fowler, et al., 2009)
Types of Work-Based Learning Experiences

1. Career Exploration
2. Job Shadowing
3. Work Sampling
4. Internships
5. Service Learning
6. Mentoring
7. Apprenticeships
8. Paid Employment

(Luecking, 2009)
Career Exploration

- Learn about jobs and the skills required performing them
- Visits and meetings with employers and people in identified occupations outside of the workplace are also types of career exploration activities from which youth can learn about jobs and careers
- Brief exposure to a specific kind of work environment or job type

(Luecking, 2009)
Job Shadowing

- Extended time, often a full workday or several workdays, spent by a youth in a workplace accompanying an employee in the performance of his or her daily duties

- Introduce students to workplace circumstances and provide them with initial knowledge about work and careers

(Luecking, 2009)
Learn aspects of potential job tasks and “soft skills” required in the workplace.

Especially useful for youth who have difficulty generalizing their education from situated environments, discover work preferences and interests, and identify accommodation needs.

(Luecking, 2009)
Internships

- Internships are formal agreements whereby a youth is assigned specific tasks in a workplace over a predetermined period of time.

- Internships may be paid or unpaid, depending on the nature of the agreement with the company and the nature of the task.

(Luecking, 2009)
Service Learning

- Hands-on volunteer service to the community that integrates with course objectives
- It is a structured process that provides time for reflection on the service experience and demonstration of the skills and knowledge required

(Luecking, 2009)
Mentoring relationships provide valuable support to young people, especially those with disabilities, by offering not only academic and career guidance, but also effective role models for leadership, interpersonal, and problem-solving skills (Luecking, 2009).
Apprenticeships

- Formal, sanctioned work experiences of extended duration
- Learn specific occupational skills related to a standardized trade, such as carpentry, plumbing, or drafting
- Many apprenticeships also include paid work components

(Luecking, 2009)
Paid Employment

- May include existing standard jobs in a company or customized work assignments that are negotiated with an employer, but these jobs always feature a wage paid directly to the youth.
- Such work may be scheduled during or after the school days. It may be integral to a course of study or simply a separate adjunctive experience.

(Luecking, 2009)
WBLE Can Be…

- Applied across a variety of settings with individuals with and without disabilities
- Informing the transition assessment process and increase students’ skills, in preparation for their postsecondary goals

(Test, Fowler, et al., 2009; Test, Mazzotti, et al., 2009; Test, Smith, & Carter, 2014)
WBLE with Students with ASD

Currently there is limited research in individuals with ASD

Current projects:
- Project SEARCH
  - Hospital settings
- CSESA

(Test, Fowler, et al., 2009; Test, Mazzotti, et al., 2009; Test, Smith, & Carter, 2014)
ASD with WBLE

- Continued need for program development between school and community settings
- Individuals with ASD are a heterogeneous population with diverse needs
- Support for students can include practices from 27 evidence-based practices identified for individuals with ASD

(Seltzer, Shattuck, Abbeduto, & Greenberg, 2004; Wong et al., 2014)
Current Project: CSESA

Center on Secondary Education for Students with Autism Spectrum Disorder (ASD)
- Research & Development Center
- Funded by the Department of Education (IES)
- Purpose: To develop and study a comprehensive high school program for students on the autism spectrum
The Goal of CSESA

To improve postsecondary outcomes for students by using high quality professional development and evidence-based interventions to support practitioners, families, and students.
CSESA Sites

- Vanderbilt Kennedy Center for Research on Human Development
- San Diego State University
- UNC Charlotte
- UNC Frank Porter Graham Child Development Institute
- UC Davis Mind Institute
- Waisman Center University of Wisconsin-Madison
- The University of Texas at Austin
CSESA Timeline

2012-2013
Year 1
Development & piloting of individual model components (6 sites)

2013-2014
Year 2
Piloting of several components in combination (6 sites)

2014-2015
Year 3
Randomized control trial (RCT) of full model at 30 sites across the country (Cohort 1)

2015-2016
Year 4
Continue implementation at 30 Cohort 1 sites; enroll 30 more sites (Cohort 2)

2016-2017
Year 5
Continue implementation at 30 Cohort 2 sites, follow-up data at Cohort 1 sites
CSESA Components

- Academics
- Independence & Behavior
- Peer & Social Competence
- Transition & Families
CSESA Components

- Academics
- Independence & Behavior
- Peer & Social Competence
- Transition & Families
Transition & Families

Transition Process
- School and Community Resource Mapping
- Transition Planning Process
- Student Involvement in the IEP
- Work-Based Learning Experiences

Transitioning Together (with Families)
Transition & Families

◆ Transition Process
  ▪ School and Community Resource Mapping
  ▪ Transition Planning Process
  ▪ Student Involvement in the IEP
    ▪ Work-Based Learning Experiences

◆ Transitioning Together (with Families)
CSESA with WBLE

Identification of college-ready and career-ready activities

<table>
<thead>
<tr>
<th>Career-Ready</th>
<th>College-Ready</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Activities</td>
<td>Student Activities</td>
</tr>
<tr>
<td>Resources</td>
<td>Resources</td>
</tr>
</tbody>
</table>
## Sample Student Activities & Resources

<table>
<thead>
<tr>
<th>Career Ready</th>
<th>College Ready</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Activities</strong></td>
<td><strong>Student Activities</strong></td>
</tr>
<tr>
<td>• Participate with a significant adult in a ‘take your child to work’ day</td>
<td>• Shadow a student in a major of interest</td>
</tr>
<tr>
<td>• Disability Mentoring Day through a local company or program</td>
<td>• Conduct a role-play with a disability services counselor</td>
</tr>
<tr>
<td>• Complete Job-Simulations on Campus</td>
<td>• Conduct a role-play with a professor</td>
</tr>
<tr>
<td>• Create Task Prompts while Observing a Job</td>
<td><strong>Resources</strong></td>
</tr>
<tr>
<td>• Job Characteristics Checklist</td>
<td>• George Washington University: toolkit will give you tips on how to request up-coming opportunities to shadow at a local college/university</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td>• Norwich University: ways to strategize methods to help you overcome some of those temporary barriers</td>
</tr>
<tr>
<td>• The High School/High Tech Program (HS/HT) provides Job Shadowing experiences including careers in science, mathematics, and technology</td>
<td></td>
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</tbody>
</table>
Suggested Timeline Across High School

9th Grade
- Career Exploration
- Job Shadowing
- Work Sampling
- Mentoring

10th Grade
- Career Exploration
- Job Shadowing
- Work Sampling
- Mentoring

11th Grade
- Service Learning
- Internship
- Paid Employment
- Apprenticeship
- Mentoring

12th Grade and Beyond
- Service Learning
- Internship
- Paid Employment
- Apprenticeship
- Mentoring

Students will complete activities within 2 WBLE experiences each school year.
**B-1.1 Lesson: Job Shadowing – Career Readiness: Disability Mentoring Day**

<table>
<thead>
<tr>
<th>Common Core Standards:</th>
<th>Vocabulary:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm Up:</td>
<td>Mentoring</td>
</tr>
<tr>
<td>• Learn about the importance of mentoring through reading about Disability Mentoring Day. Participating in this day will help build a mentoring relationship with another individual</td>
<td>Disability</td>
</tr>
<tr>
<td>Differentiation: Checklist</td>
<td></td>
</tr>
<tr>
<td>Lesson:</td>
<td></td>
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<tr>
<td>• Student will read about Disability Mentoring Day and the opportunities it offers students participating in it</td>
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</tr>
<tr>
<td>Differentiation: Picture prompts, definition</td>
<td></td>
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<tr>
<td>Guided Practice:</td>
<td></td>
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<tr>
<td>• Read about Disability Mentoring Day with student</td>
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<tr>
<td>Differentiation: Picture prompts, read aloud with student</td>
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<tr>
<td>Independent Practice:</td>
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<tr>
<td>• Student will answer questions on a worksheet about Disability Mentoring Day</td>
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<tr>
<td>Differentiation: Model answering the first series of questions; provide a choice list for the student</td>
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<tr>
<td>Assessment:</td>
<td></td>
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<tr>
<td>• Student’s answers on the worksheet about Disability Mentoring Day</td>
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<tr>
<td>Differentiation: Model writing a goal, photo/picture/word prompts of choices</td>
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**Within Each Lesson:**
- Warm Up
- Lesson
- Guided Practice
- Independent Practice
- Assessment
- HW/Product
- Vocabulary
- Teacher Materials/Technology
- Differentiation

- To be incorporated in the classroom or in practice at a Community-Based Instruction site
- Embed relevant Evidence-Based Practices
Calendar of Community-Based Instruction Sites

~ January 2014 ~

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
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<tbody>
<tr>
<td>1 Winter Break</td>
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<tr>
<td>5 Habitat Restore</td>
<td>Classroom Central</td>
<td>Raptor Center</td>
<td>Reading Partnership with Metro 9:30 – 11:30</td>
<td></td>
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<td></td>
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<tr>
<td>10 Equestrian Center</td>
<td></td>
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<td>12 Habitat Restore</td>
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<td>17 Equestrian Center</td>
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<tr>
<td>19 Holiday</td>
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<tr>
<td>21 Workday</td>
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<tr>
<td>22 So Much Good</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>23 Reading Partnership with Metro 9:30 – 11:30</td>
<td></td>
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<tr>
<td>24 The Laun's Assisted Living and Retirement Home</td>
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</tr>
<tr>
<td>26 Habitat Restore</td>
<td>Classroom Central</td>
<td>Raptor Center</td>
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<tr>
<td>30 Tour Johnson and Wales OR EMT/Medico/Fire and K9 Officer OR work on Goodbread BID</td>
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</tr>
<tr>
<td>31 Equestrian Center</td>
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</table>

Notes:
- K9 Officer Johnson & Wales CPCC March 20
Sample Task List

Today's Site: Habitat Restore

☐ Wash windows
  - Get rags from kitchen
  - Get Windex from cupboard in kitchen
  - Clean all the front windows

☐ Wash front doors
  - Use rags
  - Use Windex from cupboard in kitchen
  - Clean with two front doors at the front of the store

☐ Check with Supervisor
Evidence-Based Practices for Individuals with ASD

- 27 identified in a recent report by the National Professional Development Center (NPDC) housed at UNC-Chapel Hill

- Online modules released by Autism-Focused Internet Modules (AFIRM)

(Wong et al., 2014)
<table>
<thead>
<tr>
<th>Antecedent-Based Intervention</th>
<th>Functional Communication Training</th>
<th>Peer-Mediated Instruction and Intervention</th>
<th>Reinforcement</th>
<th>Social Narratives</th>
<th>Video Modeling</th>
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<td>Discrete Trial Training</td>
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<td>Exercise</td>
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(Wong et al., 2014)
Modeling

“Demonstration of a desired target behavior that results in imitation of the behavior by the learner and that leads to the acquisition of the imitated behavior. This EBP is often combined with other strategies such as prompting and reinforcement.”

New EBP identified in the 2014 review
Practice brief not yet available

(Wong et al., 2014)
“Verbal, gestural, or physical assistance given to learners to assist them in acquiring or engaging in a targeted behavior or skill. Prompts are generally given by an adult or peer before or as a learner attempts too use a skill.”
Self-Management

“Instruction focusing on learners discriminating between appropriate and inappropriate behaviors, accurately monitoring and recording their own behaviors, and rewarding themselves for behaving appropriately.”
Social Narratives

“Narratives that describe social situations in some detail by highlighting relevant cues and offering examples of appropriate responding. Social narratives are individualized according to learner needs and typically are quite short, perhaps including pictures or other visual aids.”
Task Analysis

“A process in which an activity or behavior is divided into small, manageable steps in order to assess and teach the skill. Other practices, such as reinforcement, video modeling, or time delay are often used to facilitate acquisition of the smaller steps.”

(Wong et al., 2014)
Technology-Aided Instruction and Intervention

“Instruction or interventions in which technology is the central feature supporting the acquisition of a goal for the learner. Technology is defined as “any electronic item/equipment/application/or virtual network that is used intentionally to increase/maintain, and/or improve daily living, work/productivity, and recreation/leisure capabilities of adolescents with autism spectrum disorders” (Odom, Thompson, et al., 2013).”

(Wong et al., 2014)
Video Modeling

“A visual model of the targeted behavior or skill (typically in the behavior, communication, play, or social domains, provided via video recording and display equipment to assist learning in or engaging in a desired behavior or skill.”

(Wong et al., 2014)
Visual Support

“Any visual display that supports the learner engaging in a desired behavior or skills independent of prompts.”

- Examples of visual supports include pictures, written words, objects within the environment, arrangement of the environment or visual boundaries, schedule, maps, labels, organization systems, and timelines.

(Wong et al., 2014)
Limitations

- CSESA is a two-year project, still waiting on information from coaches and schools about complete WBLE implementation.
- Based on feedback in pilot studies, it can be a challenge to extend WBLE to students with ASD in general education classrooms who may not have a resource room slot/class in their schedule.
- Capturing fidelity that shows WBLE comparably implemented across studies.
- Schools within spread-out or rural communities, makes it difficult to visit job sites.
- Reliance on small, independent businesses, some larger corporations have liability policies and extra hoops for coordinators and school personnel to jump through.
Implications For Research

- Need for more research on the development of work-based learning as a practice for students with ASD
- Development within a comprehensive transition program
- Incorporated within transition planning
- Further understanding of the benefits WBLE may have on future employment
Implications For Practice

- Identification and application of work-based learning experiences for students with ASD
- Individualization of practices
- Incorporate results of transition assessment
- Embed as a goal within transition planning
- Let WBLE guide future transition assessments, planning, and goals
- Service agencies involvement
THANKS! ANY QUESTIONS?

Contact Information:
Tara Regan, MSW
University of North Carolina at Chapel Hill
teregan@live.unc.edu