Evaluating Independence: Can college help students with intellectual disability become more self-sufficient?

Seb Prohn, Ph.D.
2014 AEA Conference
Agenda

• Postsecondary education (PSE) and evaluating outcomes
• The University Participant Program overview
• A Process for increasing ‘independence’
• Evaluating support, support needs, and adaptive behavior
Postsecondary Education Programs

- 221 PSE programs in US & Canada
- Significant increase in programs & growth continues
- 34% of PSE Programs focus on students’ abilities to live independently
- Little know about programs’ impacts on students
College is a good thing—why do outcomes matter?

- What type of student development can be expected for the investment?
- Stakeholders
  - Students
  - Families
  - Adult service agencies
- Strategies

PSE Costs in NC

$300

$30,000
Outcome Studies

• Evidence of better employment outcomes compared to peers with no PSE
  • More employment
  • Less required support
  • Higher earnings

Evaluation Questions

• Does participating in a full inclusion PSE program affect personal skill development of persons with ID?

• Can changes in on-campus supports be observed over time?
What is the UP Program?

- A two year, inclusive transition program for college-aged individuals with intellectual disability
- Supports up to 8 selected participants per year; 4 in each graduating cohort
- Serves as a model demonstration site for the state by providing support to satellite programs in NC and technical assistance to programs across the nation

<table>
<thead>
<tr>
<th>Year</th>
<th># of Participants</th>
</tr>
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<tbody>
<tr>
<td>2008</td>
<td>2</td>
</tr>
<tr>
<td>2010</td>
<td>4</td>
</tr>
<tr>
<td>2011</td>
<td>8</td>
</tr>
<tr>
<td>2012</td>
<td>7</td>
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<tr>
<td>2013</td>
<td>8</td>
</tr>
<tr>
<td>2014</td>
<td>8</td>
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</table>
Five UP Program Components

- **Personal Development Skills** (e.g. communication skills, personal care skills, self-determination, etc.)
- **Community Participation Skills** (e.g. public transportation, budgeting, grocery shopping, etc.)
- **Vocational Preparation Skills** (e.g. learning specific job skills on or off-campus)
- **Social Participation and Learning** (e.g. participating in university athletic events, university clubs or organizations)
- **Course Auditing** (e.g. auditing 3 to 4 courses per semester) Participants must pay current university fees for auditing courses.
What do UP Students do at WCU?

• Live in campus residence halls and experience college life with same age peers
• Have an individual plan that would allow personal development for post-UP success
• Attend and audit a limited number of classes
• Participate in social events and activities
Zeke’s Academic Roadmap

Who will I be? Future me.
- I’ll be good at childcare, have lots of friends, go to concerts and sporting events where I’ll tailgate
- I’ll live in Georgia in community housing

Skills Desired
- Painting
- Public speaking
- Money management
- Cooking skills
- Camping skills
- Reading skills

By the time I leave college....
- I want to know/ be able to... childcare
- I want to prove to others... That people like me and I can think like people without disabilities.
- How will people remember me? As a regular person

http://fpamediaserver.wcu.edu/~upprogram/michael_kozicki_videoresume.m4v
1. Michael prepares and participates in public speaking opportunities about his college experience.
   - Yes
   - No
   Please explain

3. Michael independently follows recipes, sets the oven temperature, timers, and uses kitchen safety in order to cook meals.
   - Yes
   - No
   Please explain
Person Centered Planning

I want to keep working on my budgeting.
Weekly Activity Schedules

• Strengths
  • Practical tool for students, program & others
  • Hours as a unit of measure
  • The Method is an intervention
  • Positive research

• Limitations
  • Quantity vs Quality
  • Time consuming
Staff/Support View

10am - 2:30pm
Miranda Moody (deleted)
10:00 - 2:30 Work in Graham County, Lunch 12:00 - 12:30 [HAVE TO BILL E.S.] [SE]

2:30pm - 4pm
Miranda Moody (deleted)
2:30 Travel to WCU from Graham County

4pm - 6pm
Lorin Burgess
4:00 - 5:00 Eat Dinner [NO ICE CREAM] (Upstairs), 5:00 Travel to UC Cat Tran Stop, 6:15 Travel on Cat Tran to HHS, 7:00 Discuss David's weekly schedule with him if you arrive there early [HAVE TO BILL E.S.] [HSC]

6pm - 9:15pm
Nick Provost (deleted)
*Please be sure to arrive before class starts so you can help settle David to prepare for class with books and notes out, etc. 6:00-8:30 RTH 250 Inclusion/Rec People w/ Disabilities - Randall Shaw in HHS 449, 8:50 travel to main campus on Cat Tran to Blue Ridge dorm and prompt him to start his night time routine using his work book, Keywell will bring

8am - 9:15am
Matthew Tipton (deleted)
[Call David at 7:45 to tell him to walk to Reid, he will be traveling independently] 8:00-9:15 PE 240

Care/Prevent Ath. Inj. - Jennifer Mroz in Reid 110
9:15am - 10:45am
Ashley Morton
9:15 Meet David at the CRC & walk around track, 10:15 Cool Off, use the restroom, get water, 10:30 Travel to dorm room [HAVE TO BILL E.S.] [HSC]
10:45am - 11:15am
Lorin Burgess
10:45 Check email. Check Meal Plan Balance and email to kkelley@wcu.edu [HAVE TO BILL E.S.] [HSC]

11:15am - 12:30pm
Lorin Burgess
11:15 Travel to Lunch, 11:30 Lunch [NO ICE CREAM] (Downstairs), [Let David travel independently to his dorm] [HAVE TO BILL E.S.] [HSC]
1:30pm - 2:45pm
Tara Fleck (deleted)
1:30 Travel to Camp/Take pictures with iPad, 2:00 Homework for PE 240 [HAVE TO BILL E.S.] [HSC]

8:30am - 9:30am
Brittany Cain
8:30 Breakfast in dining hall upper/meds, 9:30 Meet next person to travel to Facilities Management [HAVE TO BILL E.S.] [HSC]
9:30am - 11:15am
Brittany Cain
9:30 Travel to facilities management, 10:00 Work with Facilities Management [HAVE TO BILL E.S.] [HSC]
11:15am - 12:30pm
Ashley Morton
11 Work with Facilities Management, 12 Travel to Dining Hall [HAVE TO BILL E.S.] [HSC]
12:30pm - 1:30pm
Breana McSwain (deleted)
12:30 Lunch [NO ICE CREAM] (Upstairs) [HAVE TO BILL E.S.] [HSC]

1:30pm - 2:45pm
Lorin Burgess
1:30 Travel to Dorm, 1:45 Homework for RTH 250 Inclusion/Rec People w/ Disabilities [USE CoWriter if Possible] [HAVE TO BILL E.S.] [HSC]
2:45pm - 3:15pm
Carrie Greene
2:45 Meet with Carrie to

8am - 9:15am
Matthew Tipton (deleted)
[Call David at 7:45 to tell him to walk to Reid, he will be traveling independently] 8:00-9:15 PE 240

Care/Prevent Ath. Inj. - Jennifer Mroz in Reid 110
9:15am - 10:30am
Ashley Morton
Meet in dorm, travel to Camp 149, 9:30 Edmark in Camp 149 on the main computer [HAVE TO BILL E.S.] [HSC]
10:30am - 10:45am
Michael Beasley
10:30 Meet with Michael in Camp 149, [MAKE WORK CARDS TO TURN IN]
10:45am - 11:15am
Brittany Cain
11:00 Check email and respond to important ones [HAVE TO BILL E.S.] [HSC]
11:15am - 12:30pm
Brittany Cain
11:15 Travel to Lunch [NO ICE CREAM] (Downstairs), [He needs to be wrapping up lunch by 12:15, he has homework with his class support at 12:30] [HAVE TO BILL E.S.] [HSC]

9am - 10am
Tara Fleck (deleted)
9:00 Breakfast in dining hall/meds [HAVE TO BILL E.S.] [HSC]

10am - 11:30am
Kim Cannon
10:00 Clean Room, Pack for Weekend at Home, Pack Lunch, extra time talk about your schedule you are making for him to use at home
11:30am - 1pm
Kate Carrero
11:30 Travel from WCU to Graham County (cannot bill this time)
1pm - 5pm
Kate Carrero
1:00 Eat Lunch, 1:30 - 5:00 Work at Graham County [HAVE TO BILL E.S.] [SE]

WhenIwork.com
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00-12:30 pm</td>
<td>Eat Lunch</td>
<td>Miranda Moody</td>
</tr>
<tr>
<td>7:00 - 7:45 am</td>
<td>Breakfast in Room/Meds</td>
<td>On your own</td>
</tr>
<tr>
<td>8:15 - 8:30 am</td>
<td>Travel to Dining Hall</td>
<td>On your own</td>
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<tr>
<td>7:00 - 7:45 am</td>
<td>Breakfast in Room/Meds</td>
<td>On your own</td>
</tr>
<tr>
<td>8:45 - 9:00 am</td>
<td>Travel to Dining Hall</td>
<td>On your own</td>
</tr>
<tr>
<td>12:30-2:30 pm</td>
<td>Work at Graham County</td>
<td>Miranda Moody</td>
</tr>
<tr>
<td>7:45 - 8:00 am</td>
<td>Travel to Reid 110</td>
<td>On your own</td>
</tr>
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<td>Breakfast in Dining Hall/Meds</td>
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<td>Travel to Reid 110</td>
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<td>Breakfast in Dining Hall/Meds</td>
<td>Tara Fleck</td>
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<tr>
<td>2:30 - 4:00 pm</td>
<td>Travel to WCU</td>
<td>Miranda Moody</td>
</tr>
<tr>
<td>8:00-9:15 am</td>
<td>Care/Prevent Athletic Injuries in Reid 110</td>
<td>Matthew Tipton</td>
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<tr>
<td>9:30 - 10:00 am</td>
<td>Travel to Facilities Management Building</td>
<td>Brittany Cain</td>
</tr>
<tr>
<td>8:00-9:15 am</td>
<td>Care/Prevent Athletic Injuries in Reid 110</td>
<td>Matthew Tipton</td>
</tr>
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<td>10:00 - 11:30 am</td>
<td>Clean Room/Pack for Home/Pack Lunch</td>
<td>Kim Cannon</td>
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<tr>
<td>4:00 - 5:00 pm</td>
<td>Dinner NO ICE CREAM</td>
<td>Lorin Burgess</td>
</tr>
<tr>
<td>9:15 - 10:15 pm</td>
<td>Travel to the CRC and Walk around the Track</td>
<td>Ashley Morton</td>
</tr>
<tr>
<td>10:00-11:15 am</td>
<td>Work with Facilities Management</td>
<td>Brittany Cain</td>
</tr>
<tr>
<td>9:15 - 9:30 am</td>
<td>Travel to Camp 149</td>
<td>Ashley Morton</td>
</tr>
<tr>
<td>11:30 am - 1:00 pm</td>
<td>Travel Graham County</td>
<td>Kate Carreno</td>
</tr>
<tr>
<td>Participant</td>
<td>Age/Ethnicity</td>
<td>Disability</td>
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<td>-------------</td>
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</tr>
<tr>
<td>Kerri</td>
<td>20/Multiracial</td>
<td>Borderline ID (IQ=75), 18p chromosome abnormality</td>
</tr>
<tr>
<td>Joy</td>
<td>20/Caucasian</td>
<td>ID (IQ= 53), Waardenburg syndrome, epilepsy</td>
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<tr>
<td>Holly</td>
<td>23/Caucasian</td>
<td>Borderline ID (IQ = 73), Myotonic dystrophy, asthma</td>
</tr>
<tr>
<td>Emmanuel</td>
<td>21/Caucasian</td>
<td>ID (IQ = 49), Down syndrome</td>
</tr>
<tr>
<td>Gilbert</td>
<td>19/African American</td>
<td>Borderline ID (IQ = 75), Cerebral Palsy</td>
</tr>
<tr>
<td>Zeke</td>
<td>22/Caucasian</td>
<td>ID (IQ = 55), Down syndrome</td>
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Support Needs

• Assess where support can be implemented to improving human functioning across environments

• Support Intensity Scale (SIS; Thompson et al., 2004) as a dependent variable

• Needs assessed by two family members at the beginning and end of the academic year
Adaptive Behaviors

- Conceptual, social, and practical skills that are learned and performed by people in their everyday lives (AAIDD, 2013)

- Scale of Independent Behaviors-Revised (SIB-R; Bruininks, Woodcock, Weatherman, & Hill, 1996) as dependent variable. Pretest/posttest

- Development is crucial for independent community living
Hours Supported Results

Cohorts 1 & 2

$t(88)=7.03, \ p<.001$
Time is Money*

*At estimated $25 per hour. Start: 53hrs; End: 42hrs.; Save $8000 per student per year with 1 year of college.
The Trend Continues
Are Support Plateaus Bad?

- Inclusive environments & shifting demand landscapes
  - Constant demands: dining, campus navigation, leisure
  - Changing demands: social inclusion, work, problem solving
- ‘Independence’
- Challenge/demand
- Support

![Bar chart showing hours supported (Mon-Fri) for Y1 start, Y1 end, Y2 start, and Y2 end.](chart.png)
## Adaptive Behavior & Support Needs Results

<table>
<thead>
<tr>
<th></th>
<th><strong>SIB-R</strong></th>
<th><strong>SIS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Nonparametric analysis</td>
<td>• Nonparametric analysis</td>
</tr>
<tr>
<td></td>
<td>• Wilcoxon sign-ranked test</td>
<td>• Wilcoxon sign-ranked test</td>
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<tr>
<td></td>
<td>• Scores closer to 100 indicate more adaptive skills</td>
<td>• Lower Support Needs Index scores = fewer support needs</td>
</tr>
<tr>
<td></td>
<td>• Median drops: 89 to 86.5</td>
<td>• Median increases: 66.8-71</td>
</tr>
<tr>
<td></td>
<td>• $z=2.21$, $p&lt;.05$, $r=.63$</td>
<td>• $z=-1.997$, $p&lt;.05$, $r=.58.$</td>
</tr>
<tr>
<td></td>
<td>• Meaningful?</td>
<td>• Meaningful?</td>
</tr>
</tbody>
</table>
Limitations

- Failed control group recruitment
- Maturation or program related? What parts of program?

Measurement sensitivity
- SIS & SIBR
- College context

Program selection
- Restriction of range
- Support needs
- Adaptive skills
Future Research

- Program structure & PSE short-term and long-term outcomes
  - On-campus residency?
  - Inclusive courses?
  - Occupational preparation?
    - Classes
    - Internships
    - Paid employment
  - Support structure?
Contact

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UP.WCU.EDU
Primary Needs for Independence Evaluation

• Students

• Daily activity schedules- students can co-create
  • Daily activity schedules have been shown to increase independent task initiation and on-task behavior (Koyama & Wang, 2011)

• Systematic processes for assigning and fading support

• Other measures?

• Student participation?