

Evidence-Based Secondary Transition Practices and Predictors

David W. Test
Valerie Mazzotti
April Mustian
James White
Catherine Fowler

Division for Career Development & Transition
Milwaukee, WI
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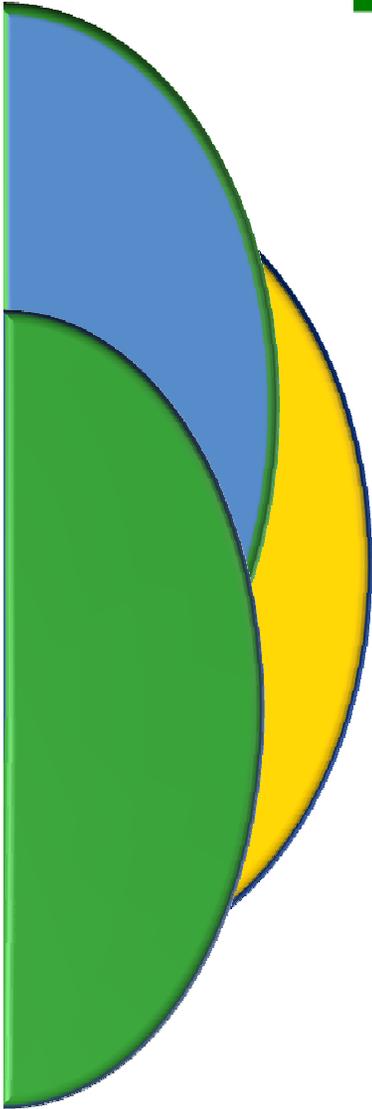
**National Secondary Transition
Technical Assistance Center**

Assist State Education Agencies with collecting and using SPP Indicator 13 data

Generate knowledge that provides an evidence based foundation for secondary transition practices
(David Test, UNC Charlotte)

Build capacity of states and local educational agencies to implement effective secondary transition services (Paula Kohler, Western Michigan University)

Disseminate information to state personnel, practitioners, researchers, parents, and students regarding effective secondary transition services
(Larry Kortering, Appalachian State University)



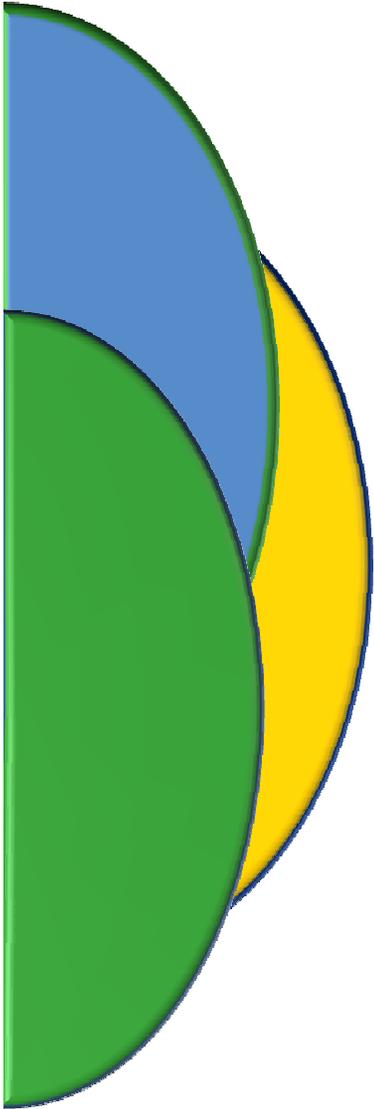


National Secondary Transition
Technical Assistance Center

Generate Knowledge: Literature Review

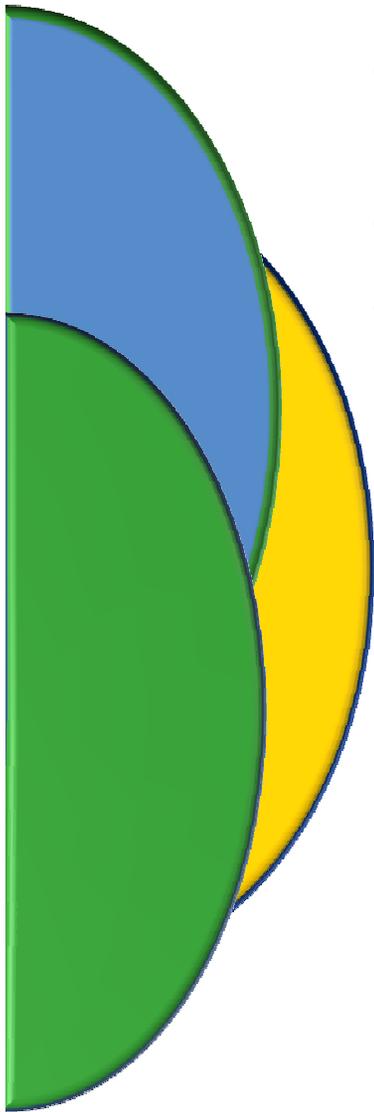
Purpose: To determine the evidence-base for secondary transition practices and make research recommendations

Primary audience: State and local secondary transition personnel and researchers



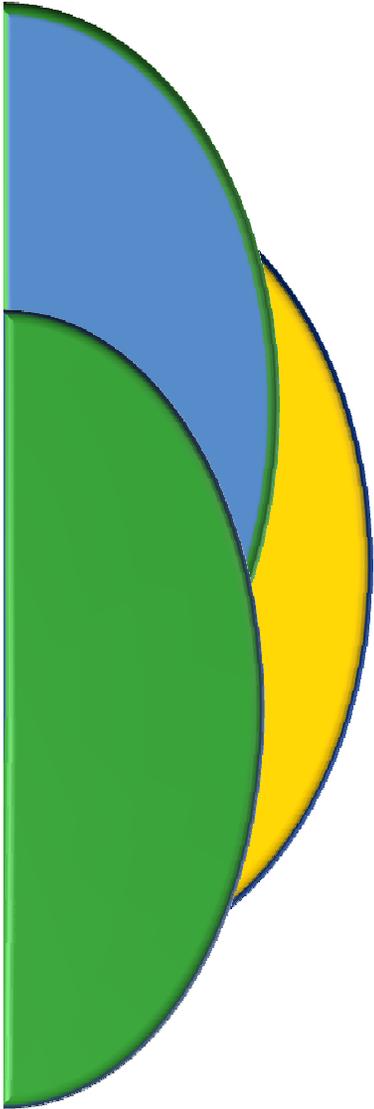
What We Have Done

- Review of experimental research to identify evidence-based practices in secondary transition
- Identified 29 evidence-based practices
- Developed 67 Research to Practice Lesson Plan Starters



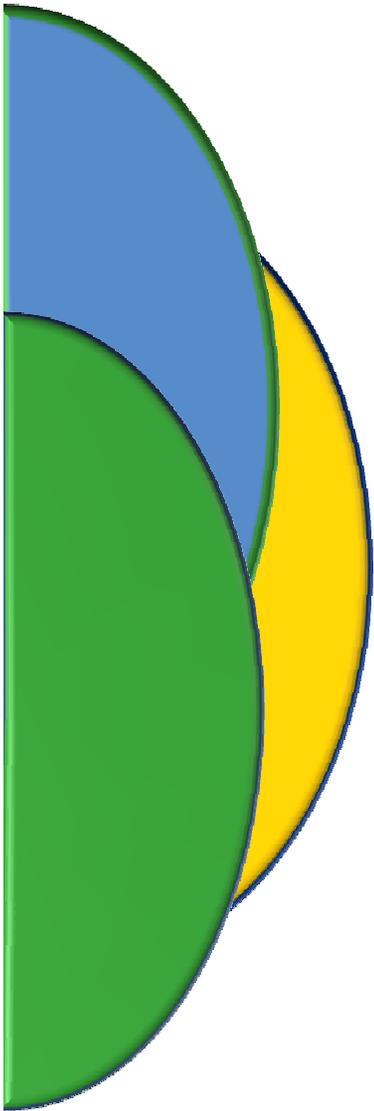
Taxonomy Category	Evidence-Based Practices	Research to Practice Lesson Plan Starters
Student Focused Planning	3	9
Student Development	23	67
Program Structure	3	1

Practice Descriptions



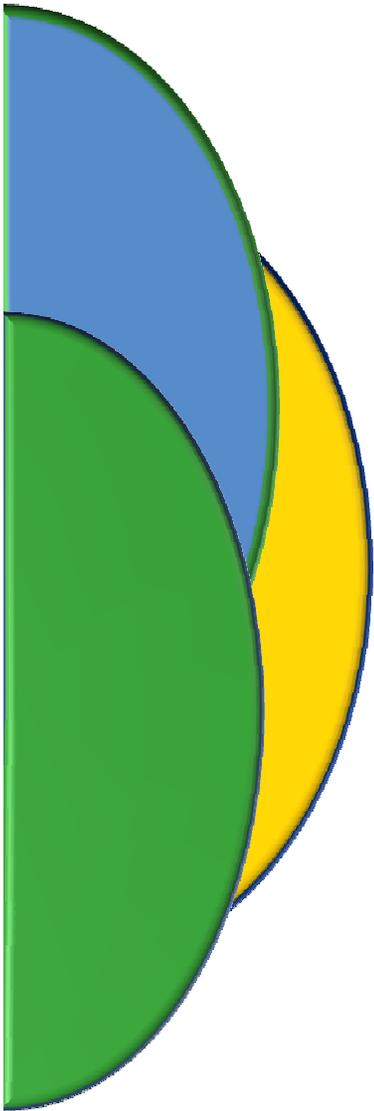
- What is the evidence?
- With whom has it been implemented?
- What is the practice?
- How has the practice been implemented?
- Where has it been implemented?
- How does this practice relate to Indicator 13?
- How does this practice relate to National Standards?
- Where is the best place to find out how to do this practice?
- Full references

Teaching Banking Skills (practice description)



- What is the evidence?
 - A *moderate* level of evidence based on three acceptable quality single-subject studies.
- With whom has it been implemented?
 - Students with moderate MR (3 studies, n=17)
 - Ages ranged from 11 – 19
 - Males (n=9), Females (n=4), not provided (n=4)
 - Ethnicity/ race information not reported
- What is the practice?
 - Teaching banking skills includes:
 - Using a debit card to withdraw money from an ATM
 - Cashing a check at the bank

Teaching Banking Skills (practice description)



- How has the practice been implemented?
 - Teaching making cash withdrawals in increments of \$10 or \$20 from an ATM or by writing a check, using a 7 to 10 step task analysis and most to least prompting
 - Teaching using a debit card to withdraw \$20 was taught using least to most prompting strategies and static picture prompts in simulated classroom training followed by community based instruction using least to most prompting strategies
- Where has it been implemented?
 - Community (3 studies)
 - Resource classroom (2 studies)

Teaching Banking Skills (practice description)

- How does this practice relate to National Standards?

NM-NUM. 1 from National Council of Teachers of Mathematics (NCTM)

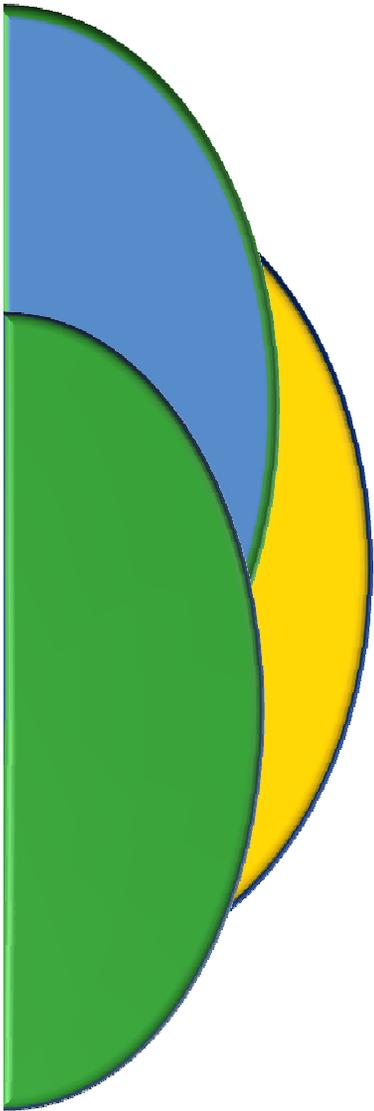
- Understand numbers, ways of representing numbers, relationships among numbers, and number systems

NSS-EC. 11 from (NCTM)

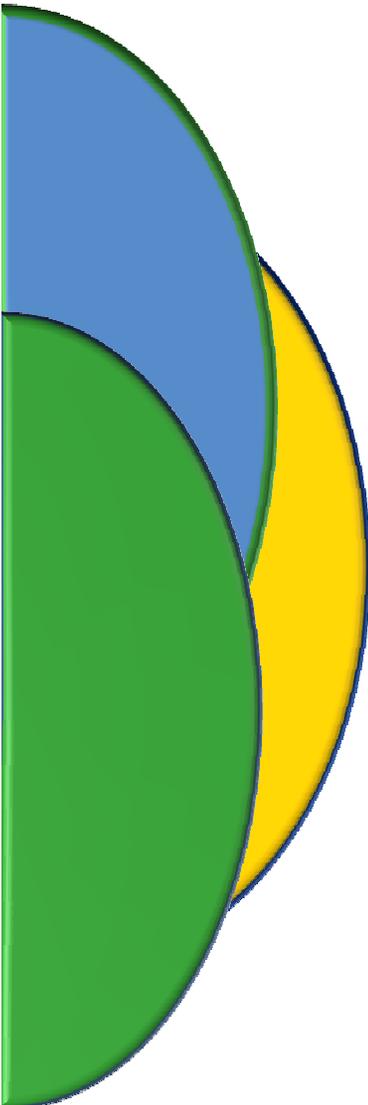
- ROLE OF MONEY
- Money makes trading easier by replacing barter with transactions involving currency, coins, or checks.

NT.K-12.1 from (NCTM)

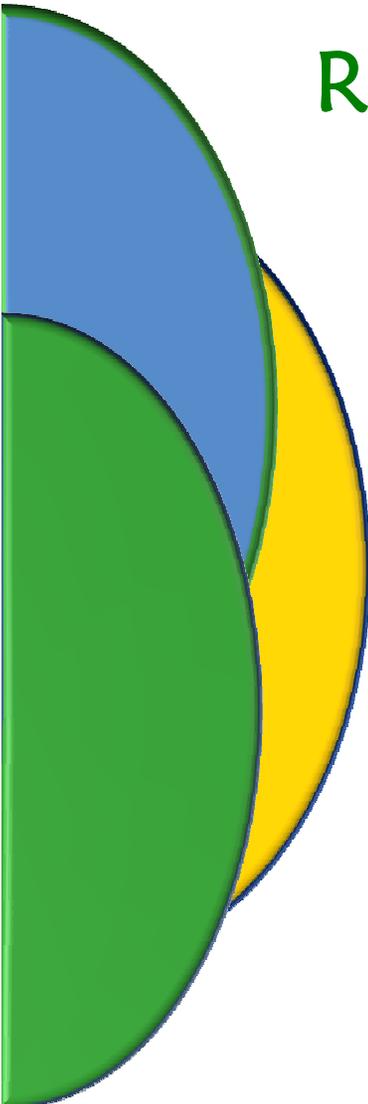
- BASIC OPERATIONS AND CONCEPTS
- Students are proficient in the use of technology.



Teaching Banking Skills (practice description)

- 
- A decorative graphic on the left side of the slide consisting of three overlapping semi-circles. The top one is blue, the middle one is green, and the bottom one is yellow. They are all outlined in black.
- Where is the best place to find out how to do this practice?
 - For teaching using a debit card to withdraw money at an automated teller machine in the community
http://www.nstattac.org/pdf/ebps/cihak_et_al_04.pdf
 - Full references listed

Research to Practice Lesson Plan Starters (RtPLPS)



Objective
Setting and Materials
Content Taught
Teaching Procedures
Method of Evaluation
Full Reference

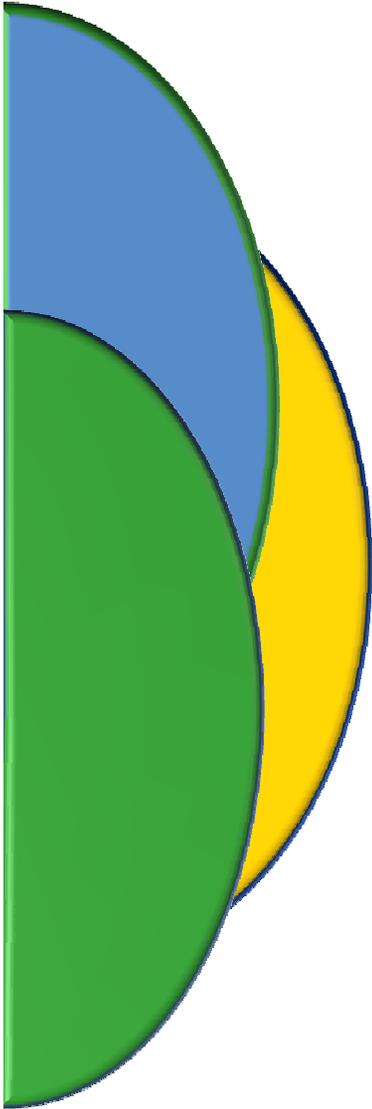
Withdrawing Money from an ATM (RtPLPS)

Objective

- To teach students to withdraw \$20 from an ATM machine

Setting and Materials

- An ATM machine in the community with a monitor that prompts options
- Debit card

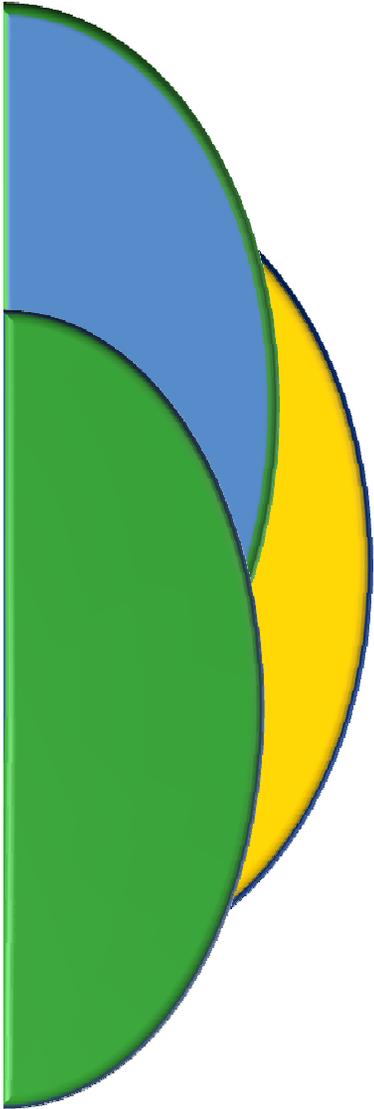


Withdrawing Money from an ATM (RtPLPS)

Content Taught

Each student was taught to withdraw \$20 from a community ATM by following a 12-step task analysis:

- 1 Insert the debit card in the ATM
- 2-5 Enter the four-digit pin
- 6 Press “Enter”
- 7 Press button indicating “Checking”
- 8 Press button indicating \$20
- 9 Wait
- 10 Remove the debit card
- 11 Take \$20
- 12 Take receipt



Withdrawing Money from an ATM (RtPLPS)

Teaching Procedures

Provide training in community settings.

1. Use a system of least prompts with a 3-second interval between each prompt level
2. To assist a student in successfully completing the task, provide prompts in the following order:
 - a. Verbal prompt (e.g., Do you see where the writing is?)
 - b. Gesture (e.g., Pointing to discriminative stimulus on machine)
 - c. Gesture plus verbal explanation (e.g., Pointing to the discriminative stimulus and providing a verbal explanation)
 - d. Modeling plus verbal explanation (e.g., demonstrating appropriate actions plus verbal explanation).
 - e. Physical assistance plus verbal explanation (e.g., holding the student's wrist, guiding the correct response, and providing an explanation)

Withdrawing Money from an ATM (RtPLPS)

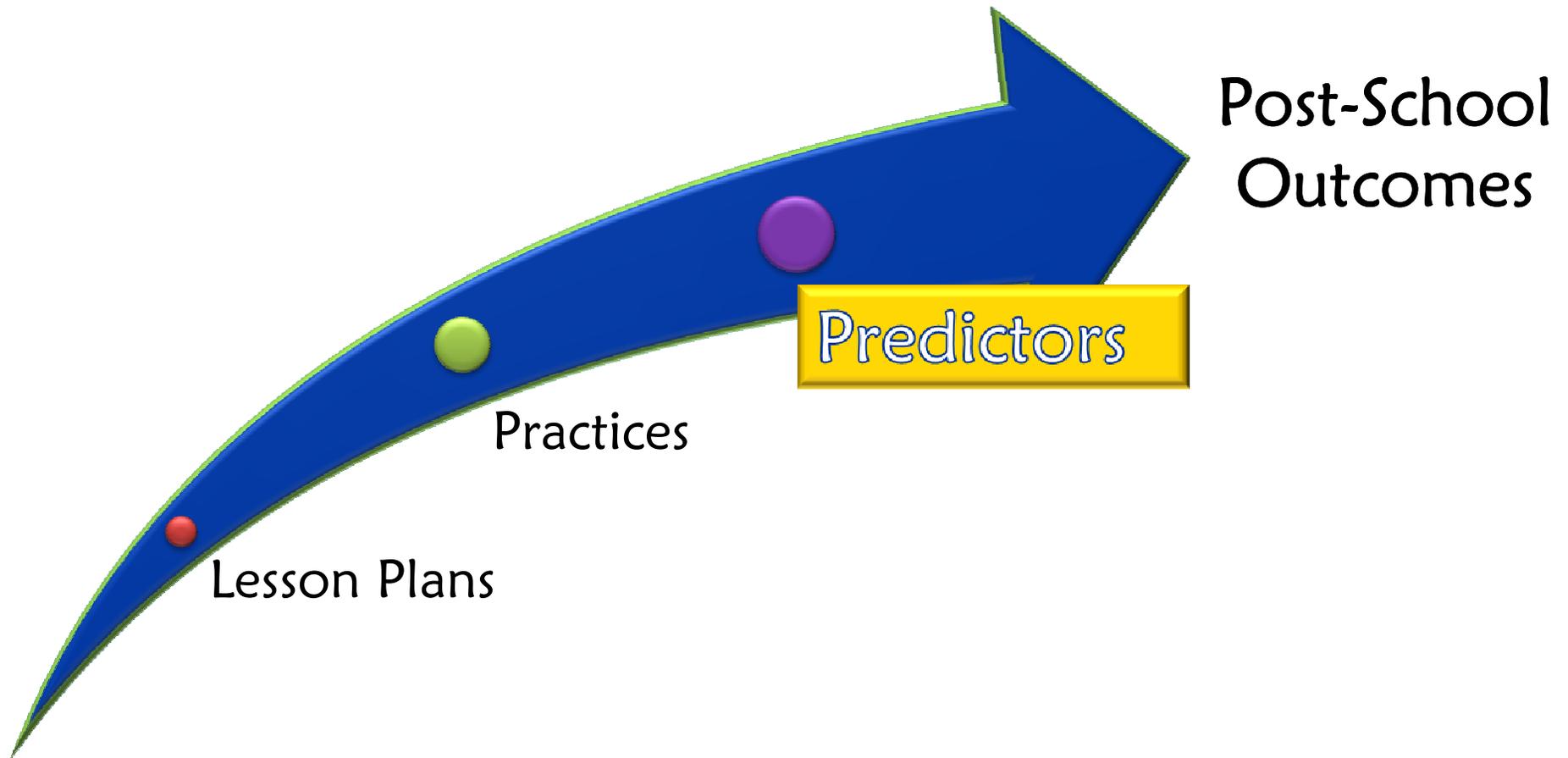
Method of Evaluation

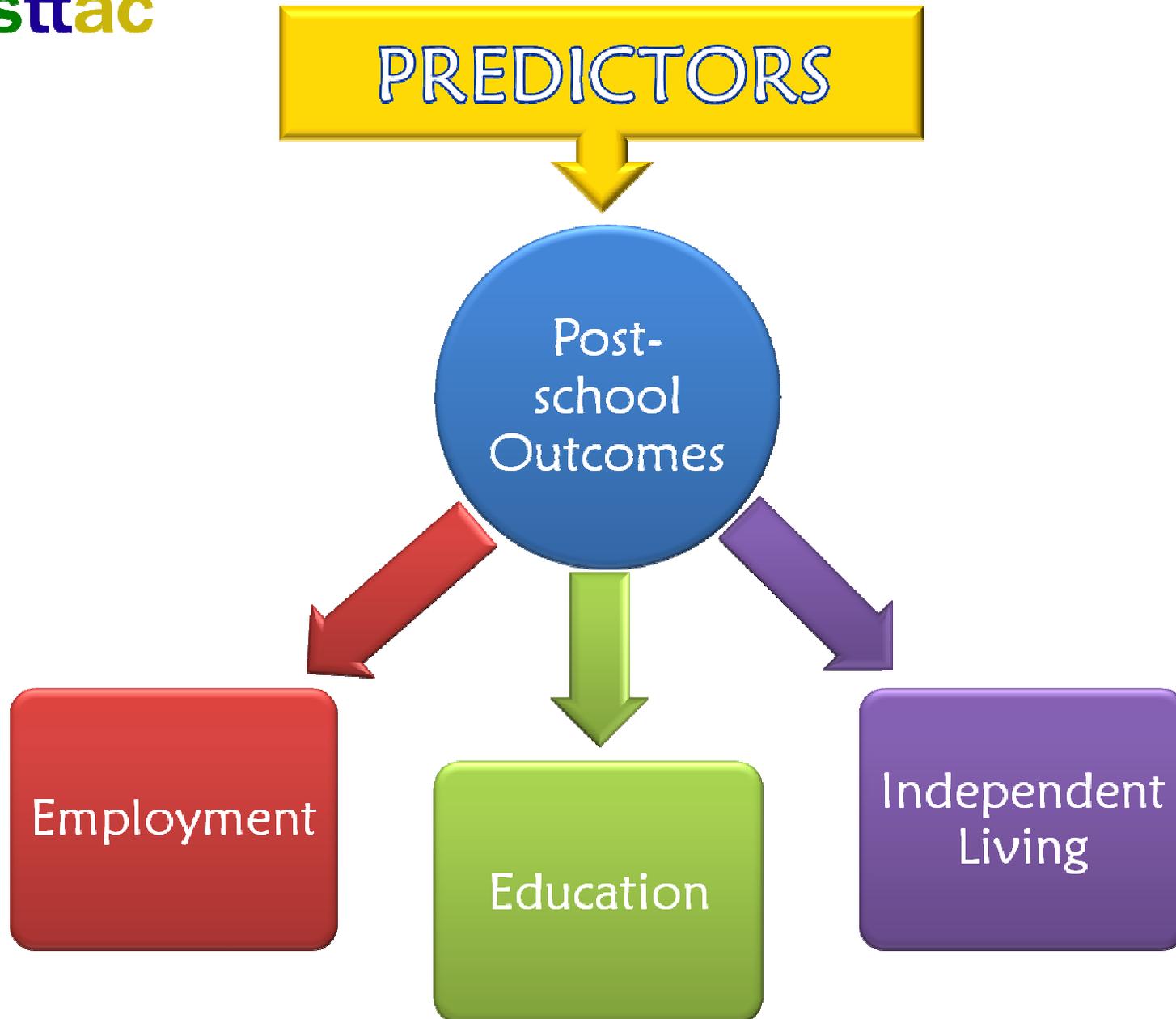
- Collect student performance data on the number of steps completed independently and correctly.

Lesson Plan Based on (full reference)

- Cihak, D. F., Alberto, P. A., Kessler, K., & Taber, T. A. (2004). An investigation of instructional scheduling arrangements for community based instruction. *Research in Developmental Disabilities, 25*, 67-88.

The Missing Link





Current Correlation Review Activity

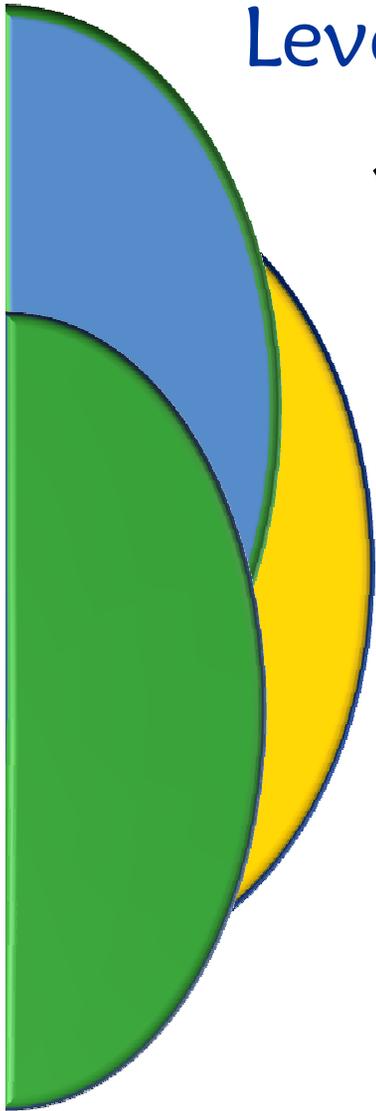
- Identified 62 correlational studies
- Found 19 studies of sufficient quality to include in the review
- Interrater reliability on inclusion of correlation studies = 100%
- Interrater reliability on 32% of coded correlation studies (first round of review) = 100%

Levels of Evidence in Correlational Research

All correlation studies must meet the following criteria:

- Predictor variable related to secondary program or practice
- Outcome variable is post-school outcome or graduation from high school
- Significant correlations (including negative findings) of 0.1 or higher exist between intervention and outcome

Levels of Evidence in Correlational Research



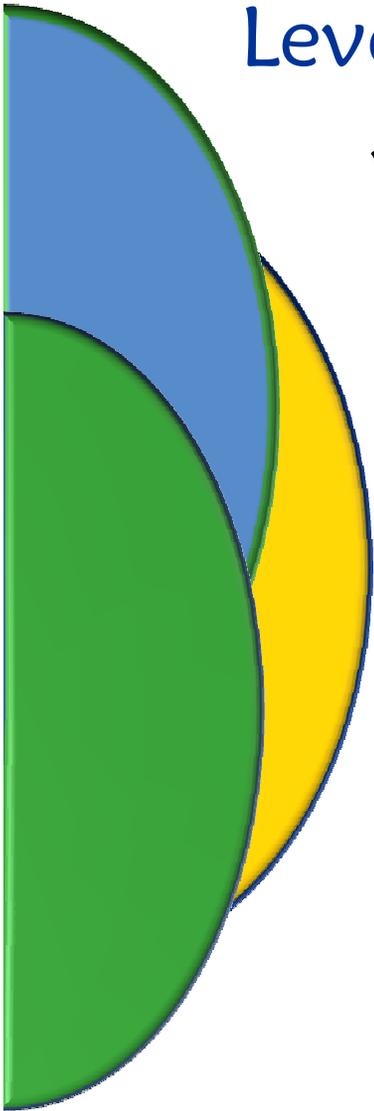
What constitutes *moderate*?

- Minimum of 2 *a priori* studies
 - ❖ Planned; hypothesis stated
 - ❖ Consistent significant correlations across studies between predictor and outcome
- Can include *exploratory* studies only when paired with *a priori* significant correlations
- Effect sizes are reported for each outcome, even when the outcome was not statistically significant, or data are reported so that effect sizes may be calculated.

Levels of Evidence in Correlational Research

What constitutes *potential*?

- One or more *exploratory* studies (when no *a priori* findings exist)
 - ❖ No specified hypothesis
 - ❖ Reflects significant correlations between predictor and outcome
- A single *a priori* study



In-School Predictors of Post-School Success

•Academic/General Education ¹	•School Integration ³
•Career Awareness ²	•Self-advocacy/Self-determination ²
•Community Experiences ¹	•Self-care/Independent Living Skills ²
•Exit Exam Requirements/High School Diploma Status ¹	•Social Skills ³
•Interagency Collaboration ¹	•Student Support ²
•Occupational Courses ²	•Transition Program ³
•Paid Work Experience ²	•Vocational Education ¹
•Parental Involvement ²	•Work Study ¹

*Superscript denotes number of PSOs supported by predictor.

In-School Predictors of Post-School Success

Employment

- Career Awareness
- Occupational Courses
- Paid Work Experience
- School Integration
- Self-care/Independent Living Skills
- Social Skills
- Transition Program
- Vocational Education
- Work Study

Education

- Academic/General Education
- Career Awareness
- Exit Exam Requirements/High School Diploma Status
- Interagency Collaboration
- Parental Involvement
- School Integration
- Self-advocacy/Self-determination
- Social Skills
- Student Support
- Transition Program

Independent Living

- Community Experiences
- Occupational Courses
- Paid Work Experience
- Parental Involvement
- School Integration
- Self-advocacy/Self-determination
- Self-care/Independent Living Skills
- Social Skills
- Student Support
- Transition Program

Predictors of Employment

Career Awareness

- Career exploration; career awareness skills at high school exit; CBI
- *Potential* with all disabilities

Paid Work Experience

- Paid jobs during high school
- *Moderate* with all disabilities

Vocational Education

- Coursework involving vocational curricula during high school
- *Moderate* with all disabilities

Work Study

- Combined paid employment and coursework during high school
- *Moderate* with all disabilities w/ exclusion of speech/language & hearing impairment

Evidence-Based Practices

- Teaching Job-Related Social/ Communication Skills (SP)
- Teaching Employment Skills using computer assisted instruction (SP)
- Teaching Job Specific Employment Skills (GP)
- Teaching Completing a Job Application (SP)
- Teaching Employment Skills using community based instruction (SP)
- Teaching Self-Management for Employment (GP)
- Structure Program to Extend Services beyond Secondary School (SP)

Predictors of Employment

Occupational Courses

- Hours spent in occupational courses (e.g., Life Skills Science, Occupational Math, Occupational English, Home Economics)
- *Potential* with mild speech impairment, mild & severe ED, LD, mild & moderate MR, VI, physical disability, deaf or hard of hearing

Evidence-Based Practices

- Teaching Functional Reading Skills (GP)
- Teaching Functional Math Skills (GP)
- Teaching Banking Skills (SP)
- Teaching Purchasing Skills using the one more than strategy (SP)
- Teaching Banking Skills (SP)
- Teaching Functional Life Skills (GP)
- Teaching Life Skills using community based instruction (SP)
- Teaching Life Skills using computer assisted instruction (SP)
- Teaching Cooking Skills (SP)
- Teaching Food Preparation Skills (SP)
- Teaching Grocery Shopping Skills (SP)
- Teaching Home Maintenance Skills (GP)
- Teaching Restaurant Purchasing Skills (SP)
- Teaching Safety Skills (SP)

Predictors of Employment

School Integration

- Hours spent in regular education classes; hours in special education courses; extent of school integration; LRE or degree of physical integration
- *Potential* with severe disabilities

Evidence-Based Practices

- Using Check and Connect (SP)

Predictors of Employment

Self-Care/ Independent Living Skills

- Responsibility skills at high school exit; home/life skills; residential independence; self-care skills
- *Potential* with all disabilities

Evidence-Based Practices

- | | |
|--|---|
| <ul style="list-style-type: none">• Teaching Functional Life Skills (GP)• Teaching Banking Skills (SP)• Teaching Cooking Skills (SP)• Teaching Food Preparation Skills (SP)• Teaching Grocery Shopping Skills (SP)• Teaching Home Maintenance Skills (GP) | <ul style="list-style-type: none">• Teaching Restaurant Purchasing Skills (SP)• Teaching Safety Skills (SP)• Teaching Life Skills using community based instruction (SP)• Teaching Life Skills using computer assisted instruction (SP)• Provide Community Based Instruction (GP) |
|--|---|

Predictors of Employment

Social Skills

- Basic social abilities; social skills at exit; ability to manage social interactions; social skills based on LCCE Personal/Social Skills rating
- *Potential* with all disabilities

Evidence-Based Practices

- Teaching Job Related Social/Communication Skills (SP)
- Structure Program to Extend Services beyond Secondary School (SP)

Predictors of Employment

Transition Program

- Post-school goals met; student needed or received transition planning services in high school; transition program characteristics (i.e., academic adult education, career exploration, college community training, developmental training, employment, entrepreneurship, life skills)
- *Moderate* with all disabilities

Evidence-Based Practices

- Teaching Functional Life Skills (GP)
- Teaching Purchasing Skills (GP)
- Involving Students in the IEP Process (GP)
- Using the Self-Advocacy Strategy (SP)
- Using the Self-Directed IEP (SP)
- Teaching Self-Determination Skills (GP)
- Teaching Functional Reading Skills (GP)
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- Teaching Self-Management for Employment (GP)
- Structure Program to Extend Services beyond Secondary School (SP)
- Using Check and Connect (SP)

Predictors of Education

Academic/ General Education

- Participation in regular academic classes; grade point average in academic classes
- *Potential* all disabilities w/ exclusion of speech/language & hearing impairment

School Integration

- Coursework involving vocational curricula during high school
- *Moderate* with severe disabilities

Evidence-Based Practices

- Teaching Banking Skills (SP)
- Teaching Purchasing Skills using the One More Than Strategy (SP)
- Using check and connect (SP)

Predictors of Education

Career Awareness

- Career exploration; career awareness skills at high school exit; CBI
- *Potential* with all disabilities

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Predictors of Education

Exit Exam Requirements/ High School Diploma Status

- Type of diploma received; high school exit exam requirements (i.e., were exit exams required?); high school diploma vs. dropout; high school diploma earning status
- *Potential* with all disabilities

Evidence-Based Practices

- Using Check and Connect (SP)

Predictors of Education

Interagency Collaboration

- Transition interagency council characteristics, including: case management, agency directories, agreements, councils, general information, local business advisory boards
- *Potential* with all disabilities

Parental Involvement

- Parent participation and involvement in child's education; family involvement; family knowledge of adult services
- *Potential* with moderate & severe MR

Evidence-Based Practices

- None

Predictors of Education

Self-Advocacy/ Self-Determination

- Self-determination skills at exit based on *The Arc's Self-Determination Scale*; self-determination in choosing daily activities
- *Potential* with MR & LD

Evidence-Based Practices

- Involving Students in the IEP Process (GP)
- Using the Self-Advocacy Strategy (SP)
- Using the Self-Directed IEP (SP)
- Teaching Self-Determination Skills (GP)
- Teaching Self-Advocacy skills (GP)

Predictors of Education

Social Skills

- Basic social abilities; social skills at exit; ability to manage social interactions; social skills based on LCCE Personal/Social Skills rating
- *Potential* with all disabilities

Evidence-Based Practices

- Teaching Job Related Social/Communication Skills (SP)
- Structure Program to Extend Services beyond Secondary School (SP)

Predictors of Education

Student Support

- Level of perceived support during high school; student satisfaction with instruction received during high school; peer support; social network
- *Moderate* with all disabilities

Evidence-Based Practices

- Using Check and Connect (SP)
- Structure Program to Extend Services beyond Secondary School (SP)

Predictors of Education

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- Post-school goals met; student needed or received transition planning services in high school; transition program characteristics (i.e., academic adult education, career exploration, college community training, developmental training, employment, entrepreneurship, life skills)
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Predictors of Independent Living

Community Experiences

- Approximate number of community visits per year; community placement activities
- *Potential* with all disabilities

Evidence-Based Practices

- Provide Community-Based Instruction (GP)
- Teaching Life Skills using Community-Based Instruction (SP)
- Teaching Employment Skills using Community-Based Instruction (SP)
- Structure Program to Extend Services Beyond Secondary School (SP)
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Predictors of Independent Living

Occupational Courses

- Hours spent in occupational courses (e.g., Life Skills Science, Occupational Math, Occupational English, Home Economics)
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Predictors of Independent Living

Paid Work Experience

- Paid job(s) during high school; wages earned; hours worked
- *Moderate* with all disabilities

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Contact Us



David Test, dwtest@uncc.edu

Catherine Fowler, chfowler@uncc.edu

Valerie Mazzotti, vlmazzot@uncc.edu

April Mustian, amustian@uncc.edu

James White, jawhite@uncc.edu

www.nstattac.org

704-687-8606

704-687-6327 (TTY)

704-687-2916 (fax)