



# Evidence-Based Practices for Helping Secondary Students with Autism Transition Successfully to Adulthood

David W. Test

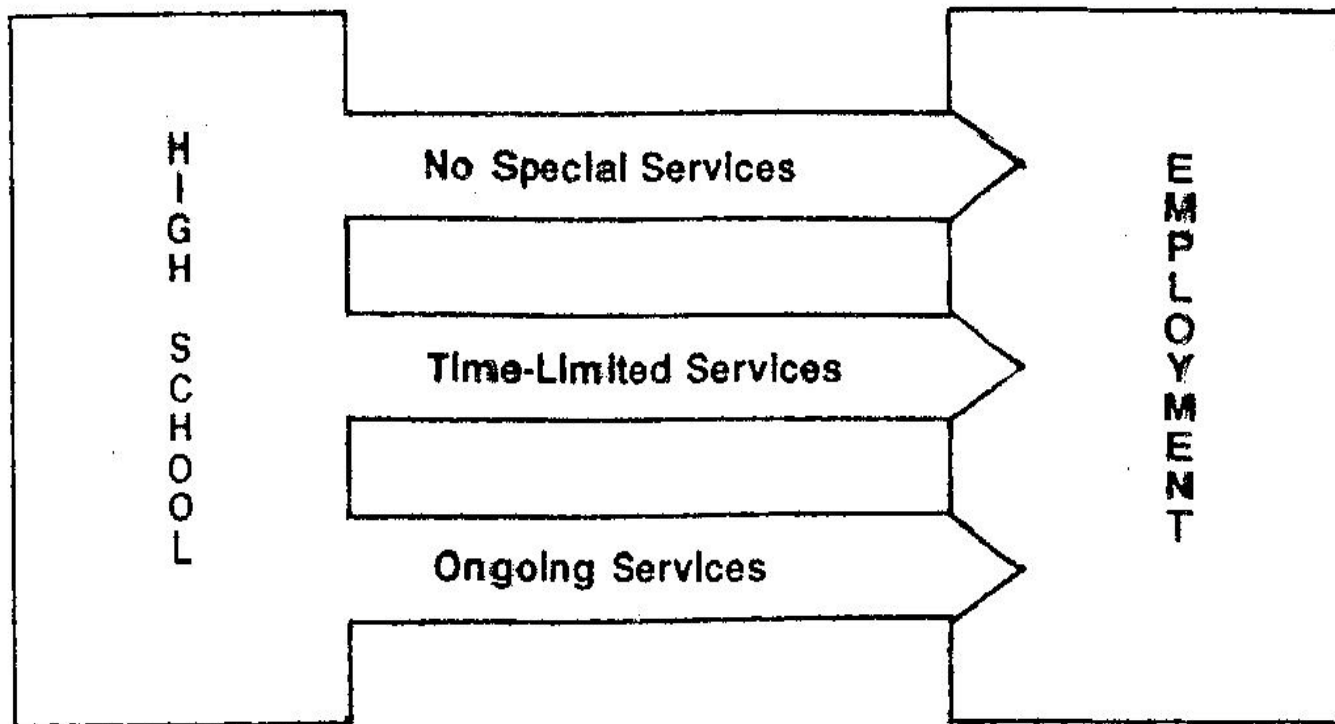
National Secondary Transition Technical Assistance Center  
and University of North Carolina at Charlotte

Kentucky Regional Interagency Transition Planning Institute  
Lexington, KY, June 4, 2009

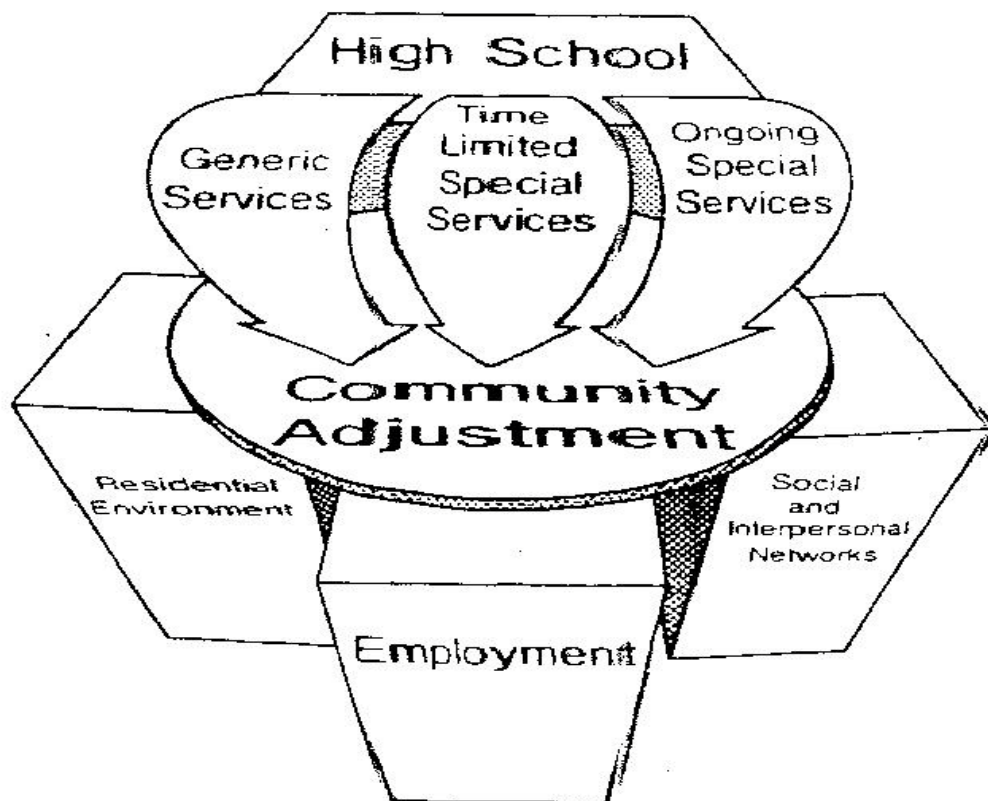


Appalachian State University





Major components of the transition process (Will, 1984)



**Revised Transition Model (Halpern, 1985)**



Transition services are now defined as “a coordinated set of activities for a child with a disability that (a) is designed to be within a results oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child’s movement from school to post-school activities, including postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation; and (b) is based on the individual child’s needs, taking into account the child’s strengths, preferences, and interests; and includes instruction, related services, community experiences, development of employment and other post-school adult living objectives, and, if appropriate, acquisition of daily living skills and provision of a functional vocational evaluation.”  
(IDEA, 2004; 20U.S.C. 1401(34))



## Practical Definition of Secondary Transition

“...a period of *floundering* that occurs for at least the first several years after leaving school as adolescents attempt to assume a *variety* of adult roles in their communities” (Halpern, 1992, p. 203).

Current Level of Postschool “Engagement”  
for Individuals with Autism  
(National Longitudinal Transition Study-2; NLTS2, 2005)

**Percent “Engaged” = 55.7% (third lowest rate)**

- **Employment only = 14.0%**
- **Postsecondary Education only = 15.0%**
- **Employment and Postsecondary Education = 13.6%**
- **Job Training Alone or with Other = 13.1%**

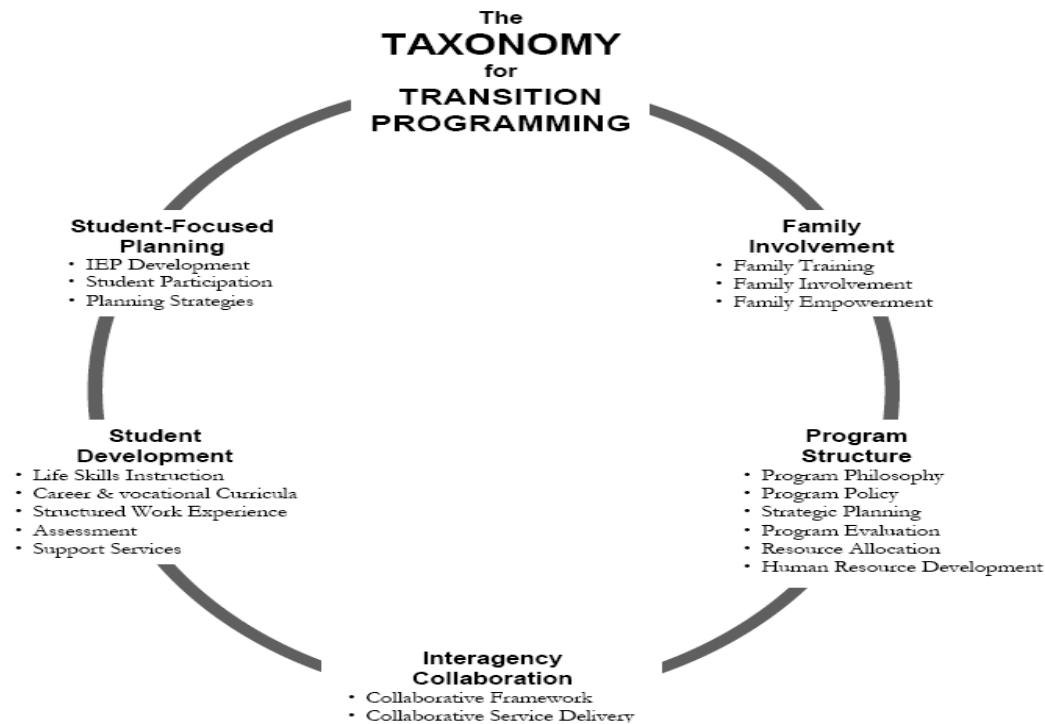
## Other Postschool Outcomes (NLTS2, 2005; 2007)

|                                                      | Wave 3 | Wave 4 |
|------------------------------------------------------|--------|--------|
| Living with parents/legal guardians                  | 88.5%  | 82.6%  |
| On own, with spouse, roommate, or college dorm       | 4.2%   | 8.3%   |
| Have permit/license                                  | 22.7%  | 24.7%  |
| Have checking account                                | 24.3%  | 36.8%  |
| Have charge account/credit card                      | 7.1%   | 14.8%  |
| Watch TV more than 20 hours per week                 | 18.1%  | 27.6%  |
| Accessing the Internet/Email                         | 46.6%  | 44.4%  |
| Saw friends (non-work/school) once per week          | 4.8%   | 8.4%   |
| Involved with group activities within last 12 months | 40.6%  | 37.2%  |

## Parental Expectations for Students with Autism (NLTS2, 2005)

|                               | <b>Definitely<br/>Will</b> | <b>Definitely/<br/>Probably<br/>Will Not</b> | <b>IEP Goal</b>                                               |
|-------------------------------|----------------------------|----------------------------------------------|---------------------------------------------------------------|
| Get a Postsecondary Education | 28.5%                      | 35.8%                                        | 66.6%                                                         |
| Get a job                     | 75.2%                      | 7.3%                                         | Competitive = 20.2%<br>Supported = 25.1%<br>Sheltered = 15.6% |





**Kohler, 1996**

## What We Have Done

- Review of experimental research to identify evidence-based practices in secondary transition
- Identified 33 evidence-based practices
- Developed 87 Research to Practice Lesson Plan Starters

| Taxonomy Category        | Evidence-Based Practices | Research to Practice Lesson Plan Starters |
|--------------------------|--------------------------|-------------------------------------------|
| Student Focused Planning | 3                        | 8                                         |
| Student Development      | 26                       | 75                                        |
| Family Involvement       | 1                        | 0                                         |
| Program Structure        | 3                        | 4                                         |

## Student Development

- Teaching Functional Life Skills\*
- Teaching Banking Skills
- Teaching Cooking and Food Preparation Skills
- Teaching Grocery Shopping Skills\*
- Teaching Home Maintenance Skills
- Teaching Leisure Skills
- Teaching Personal Health Skills\*
- Teaching Purchasing Skills\*
- Teaching Purchasing Using the One More Than Strategy
- Teaching Restaurant Purchasing Skills
- Teaching Safety Skills
- Teaching Self-Care Skills

\* = evidence-base included students with autism

- Teaching Life Skills Using Community Based Instruction\*
- Teaching Life Skills Using Computer Assisted Instruction\*
- Teaching Self-Management for Life Skills
- Teaching Self-Determination Skills\*
- Teaching Self-Advocacy Skills
- Teaching Functional Reading Skills\*
- Teaching Functional Math Skills\*
- Social Skills Training\*
- Teaching Job Specific Employment Skills\*
- Teaching Completing a Job Application
- Teaching Job Related Social Communication Skills
- Teaching Employment Skills Using Community Based Instruction
- Teaching Employment Skills Using Computer Assisted Instruction\*
- Teaching Self-Management for Employment

## Student-Focused Planning

- Involving Students in the IEP Process\*
- Using the *Self-Advocacy Strategy*
- Using the *Self-Directed IEP*

## Family Involvement

- Training Parents on Transition Issues

## Program Structures

- Provide Community Based Instruction\*
- Provide Program to Extend Services Beyond Secondary School
- Using *Check and Connect*

## Teaching Purchasing Skills (practice description)

- What is the evidence?
  - A ***strong*** level of evidence based on a high quality meta-analysis of 28 intervention studies.
- With whom has it been implemented?
  - Students with mild cognitive disabilities (2 studies)
  - Students with mild to moderate cognitive disabilities (4 studies)
  - Students with moderate cognitive disabilities (9 studies)
  - Students with moderate and severe disabilities (13 studies)
  - Students with severe cognitive disabilities (5 studies)
  - Students with **autism** or severe behavior disorders (3 studies)
  - Ages ranged from elementary school age – adult: majority included students approximately 14 – 21 years old (17 studies)
  - Gender and ethnicity information not included for participants

## Teaching Purchasing Skills (practice description)

- What is the practice?
  - Types of purchasing skills were separated into three categories including:
    - restaurant ordering
    - grocery or shopping center purchases
    - vending machine use or money payment instruction only
- How has it been implemented?
  - Providing participants with aids such as: written task cards, picture, photographs, coin matching cards, money and number lines, calculators, shopping cards, mnemonics, the next-dollar strategy, one-more-than technique with cents pile modifications, providing participants with a specified amount of money, using simulated computer based instruction and classroom instruction prior to instruction in the community



## Teaching Purchasing Skills (practice description)

- Where has it been implemented?
  - Simulated settings only
  - Simulated settings and in vivo settings
- How does this practice relate to Indicator 13?
- Indicator 13 Checklist Item # 2: Teaching purchasing skills may be an IEP objective that supports a student's postsecondary independent living goal(s)
- Indicator 13 Checklist Item #5: Teaching purchasing skills may reflect results of transition assessment information.
- Indicator 13 Checklist Item #6: Purchasing skills instruction may also be a part of a student's course of study that aligns with a primary postsecondary goal in the area of independent living



## Teaching Purchasing 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
  - Count with understanding and recognize "how many" in sets of objects
  - Connect number words and numerals to the quantities they represent, using various physical models and representations

## Teaching Purchasing Skills (practice description)

- Where is the best place to find out how to do this practice?
  - For grocery shopping:  
<http://www.nsttac.org/LessonPlanLibrary/49.pdf>
  - For restaurant skills:  
<http://www.nsttac.org/LessonPlanLibrary/60.pdf>
  - For purchasing in various settings:  
[http://www.nsttac.org/LessonPlanLibrary/48\\_84.pdf](http://www.nsttac.org/LessonPlanLibrary/48_84.pdf)
  - For purchasing using the “One-More-Than” Strategy:  
<http://www.nsttac.org/LessonPlanLibrary/46.pdf>
  - For purchasing with a debit card:  
<http://www.nsttac.org/LessonPlanLibrary/45.pdf>
- Full references listed



**National Secondary Transition  
Technical Assistance Center**

## Purchasing Skills (RtPLPS)

### Objective

- To teach purchasing skills using videotape modeling and in vivo instruction

### Setting and Materials

- Stores in the community such as bookstores, convenience stores, drugstores, gift shops, grocery stores, hobby shops, and record stores
- Items typically purchased by same age peers as single items and that are located in various parts of the store
  1. A sufficient amount of money to make a purchase of a single item
  2. Wallet or purse to keep money in
  3. Video camera and videotape
  4. Generic task analysis (that can be used across a variety of community stores)



## Purchasing Skills (RtPLPS)

### Content Taught

- Entering the store, locating the aisle or section, selecting the item, going to the checkout stand, moving in line, putting the item on the counter, getting out money, giving money to the cashier, getting change, putting away the change, taking the item, and leaving the store

## Teaching Procedures

*In vivo training:*

- a) Teacher will give a verbal direction outside of the store to “buy a (name of item).”
- b) Independent correct responses will be followed by verbal praise from the teacher. Once a criterion of 80% independent performance is attained, the frequency of verbal praise should be reduced to every other correct step. Correct responses to prompts will be followed by minimal feedback (e.g., “O.K.”).
- c) If a response in the task analysis is not initiated within 5 seconds of the natural cue (e.g., completion of the previous step, presence of needed item, presence of checkout stand) the student will be given a verbal prompt.
- d) If the student does not respond within 5 seconds of the verbal prompt, a gestural prompt will be given.

## Teaching Procedures

- e) If the student does not respond within 5 seconds of the gestural prompt, partial physical guidance will be given until the student completes the step in the task analysis.
- f) The teacher will follow the procedure in #1 in the in vivo store for a total of 3 items to be purchased.
- g) Teaching the student to purchase the first item will be done until the student meets the criterion of independent responding on 100% of the steps in the task analysis. Teaching of the second item will be subsequently conducted to criterion, following as needed with training on a third item.
- h) In vivo training should continue until the student meets mastery criterion on at least one session for item 3 and demonstrate stability in responding within all untrained stores.

## Purchasing Skills (RtPLPS)

### Teaching Procedures

2. *Videotape training:* The teacher will direct student to watch one videotape sequence of purchasing responses without interruption and watch the sequence again, this time answering a series of questions regarding the videotape.
  - a) One videotape training will be conducted two to four times per week.
  - b) When students are watching the videotape (with questions), the tape will be paused directly following the modeling of each response in the task analysis and the corresponding question will be asked.

## Purchasing Skills (RtPLPS)

### Questions for Videotape Training

#### Videotape Segment Question

Student enters the store. Where is she going?

Student finds the correct aisle or section. What is she doing?

Student selects item. What is she getting?

Student goes to the checkout line. Where did she go?

Student moves in line. Where is she standing?

Student puts item on counter. Where did she put item?

Student gets out money. What is she getting?

Student gives money to cashier. What did she do with money?

Student takes charge. What did she get?

Student puts money away. What did she do?

Student picks up item. What did she take?

Student leaves the store. Where did she go?



## Purchasing Skills (RtPLPS)

- c) If a correct response is given within 5 seconds, verbal praise will be given and the tape should be restarted.
- d) If no response or an incorrect response is given within 5 seconds, the correct answer will be modeled by the teacher, the student is asked to repeat the correct response, and the tape is re-started.
- e) Videotape generalization training is conducted with each taped sequence until a training criterion of 100% correct on the questions for one session is reached and when the student reaches 100% accuracy for purchasing the item in the actual store.

## Method of Evaluation

- To collect data on student performance calculate percent of task analysis steps with correct responding and cumulative number of independent purchases in trained stores and untrained and novel stores.

## Lesson Plan Based on (full reference)

- Haring, T. G., Breen, C. G., Weiner, J., Kennedy, C. H., & Bednersh, F. (1995). Using videotape modeling to facilitate generalized purchasing skills. *Journal of Behavioral Education*, 5, 29-53.



## Welcome to the National Secondary Transition Technical Assistance Center (NSTTAC) website

### Objectives

State Education Agencies with collecting data on IDEA (2004) Part B State Performance Plan Indicator 13 and using these data to improve transition services;

- Indicator 13: Percent of youth aged 16 and above with an IEP that includes coordinated, measurable, annual IEP goals and transition services that will reasonably enable the child to meet the post-secondary goals. [20 U.S.C. 1416(a)(3)(B)]

Generate knowledge that provides a foundation for states to improve transition services that enhance post-school outcomes;

Build capacity of states and local educational agencies to implement effective transition education and services that improve post-school outcomes; and

Disseminate information to state personnel, practitioners, researchers, parents, and students regarding effective transition education and services that improve post-school outcomes.

## NSTTAC Website Overview Video

This video provides a 16 minute overview of the NSTTAC website. Highlights include a tour of key sections tailored to help meet the school to post-secondary settings transition and indicator 13 needs of teachers, professionals and families.

## New Video Resources

- Post Secondary Goals
- Completing a Summary of Performance Form

## New Mexico Teen Toolkit

This guide was made in collaboration with young people in New Mexico. It gives you information about what Teen Dating Violence (TDV) and healthy relationships look like, what you can do if you or your friend is in a violent relationship, and ideas for stopping Teen Dating Violence in your schools and communities.

## Institute Registration

Follow this link to register for the 3rd Annual Secondary Transition State Planning Institute

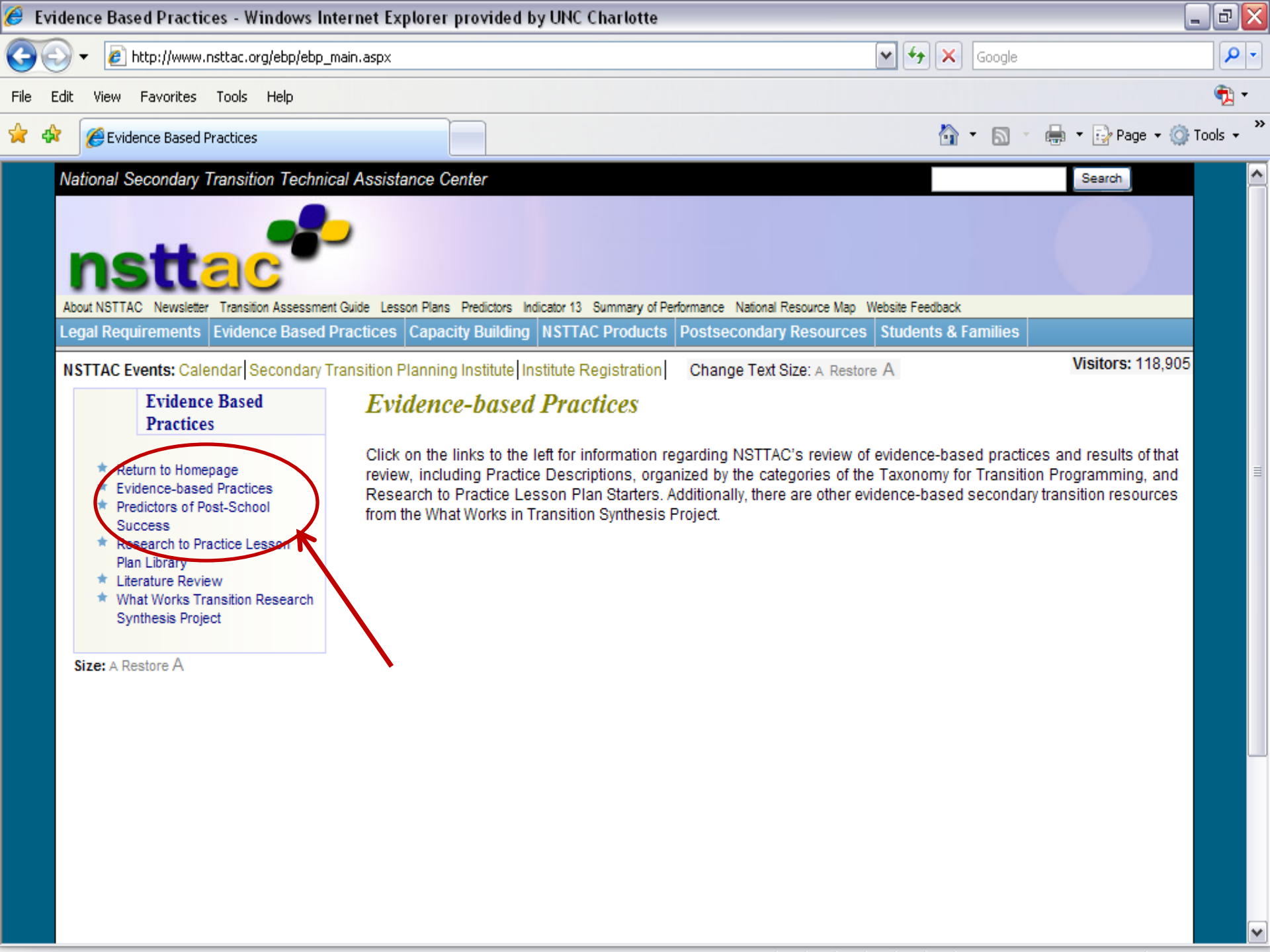
**Where:** Hilton University Place Charlotte, North Carolina

**When:** May 12th – 14th, 2009

## DCDT Personnel Competency Fact Sheets

**NEW!** DCDT Fact Sheet – Transition Related Planning, Instruction, and Service Responsibilities for Secondary Special Educators: This document was developed by DCDT and outlines the various transition-related planning, instruction, and service responsibilities of secondary special educators.  
[http://www.dcdt.org/DCDT\\_Fact\\_Sheet\\_Transition\\_related\\_](http://www.dcdt.org/DCDT_Fact_Sheet_Transition_related_)

**NEW!** DCDT Fact Sheet - Transition Specialists Competencies: This document, developed by DCDT,





Hi. My name is Robert M..

Thank you for coming to my IEP meeting.

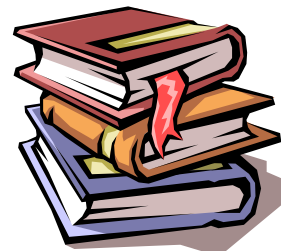
I will be in 12<sup>th</sup> grade next year.

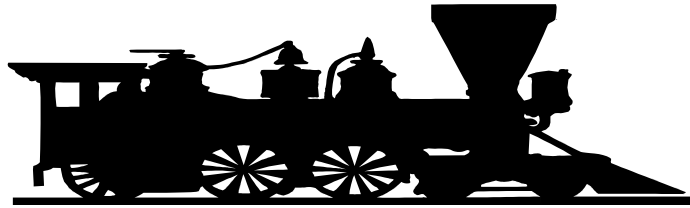


I like to listen to stories and write stories on the computer.

I like to learn on the computer.

My goal is to learn to read.

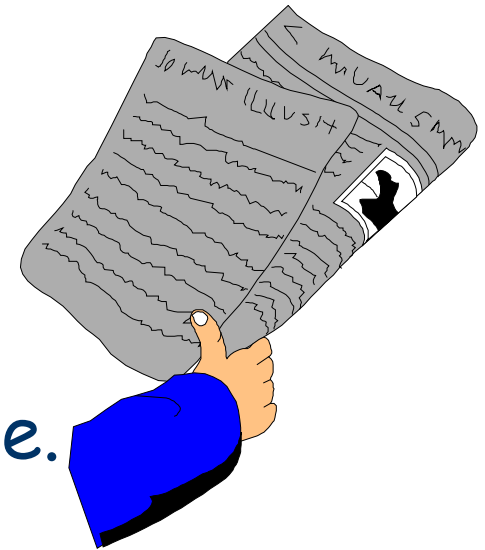


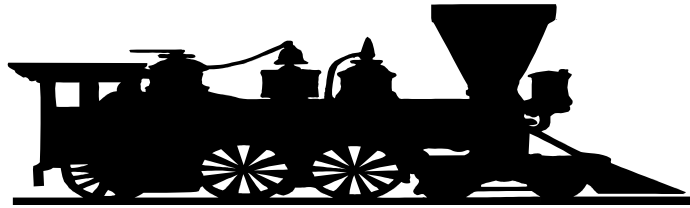


I want to deliver newspapers and help make deliveries from the guidance office.

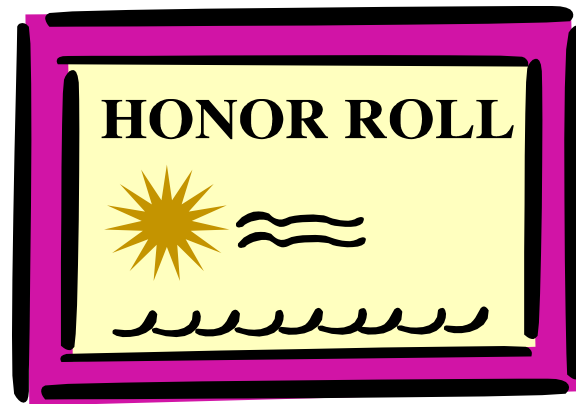
My goal is to deliver papers by myself.

I like to volunteer and see people.



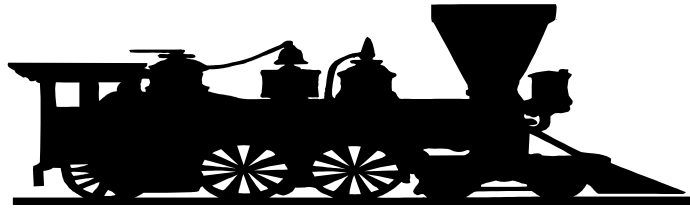


I am very proud that I got into National Honor Society.



I want to do things with the other kids.

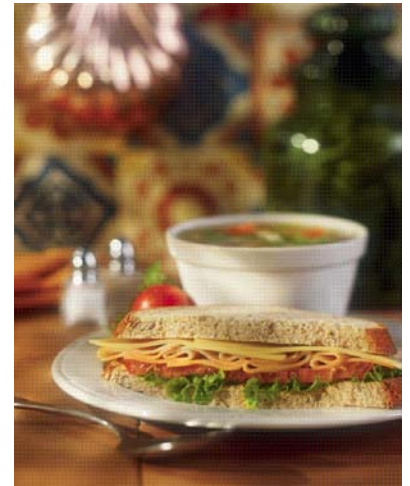


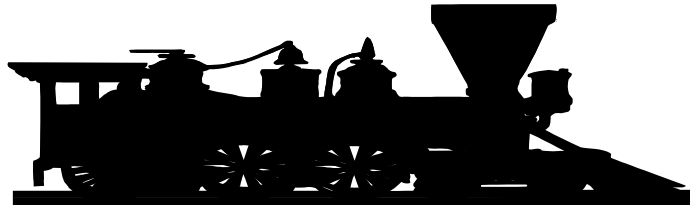


I like playing games with friends in the lunchroom. I like buying my own cookie.

I want to make friends.

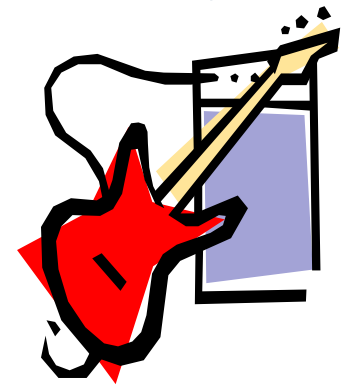
My goal is to do things in school and school with my friends.





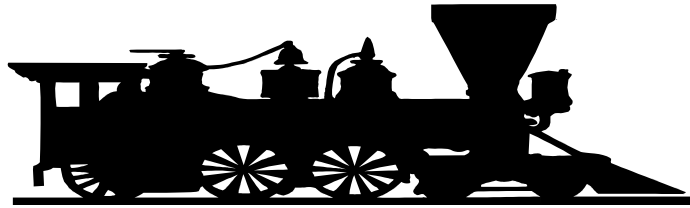
I want music therapy with Mr. Gold and jazz band with Mr. Streiff.

I love music!



My goal is to do percussion with the band and help at practices and concerts.

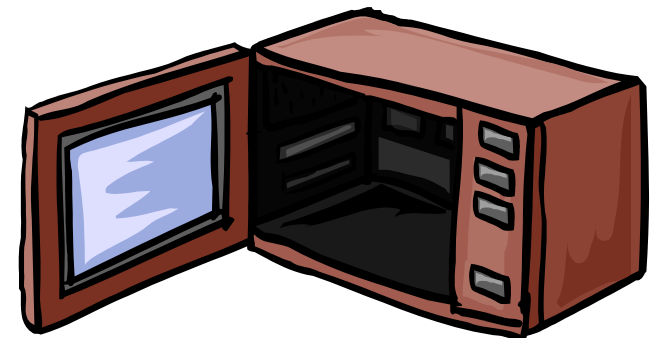




I want to cook. I like International Foods and Nutrition Class.

My goal is to learn to fix and cook different foods using the microwave.

I can make popcorn now!





I like P.E. and going to gym.

I like basketball.



My goal is to learn to swim.



I like sign class and showing kids signs.

My goal is to learn more signs.

I like watching Ms. Hayward sign.

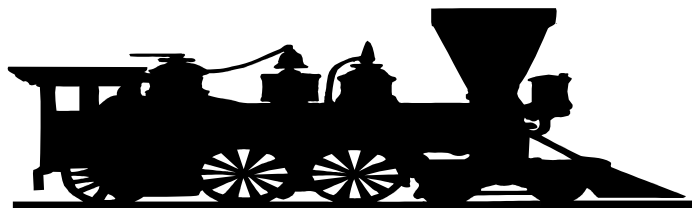




I like talking with Mr. Smith.

My goal is to let someone know what is bothering me without getting angry.

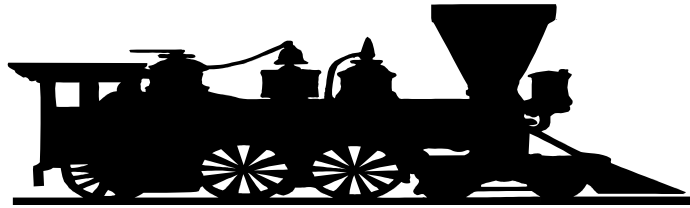




I like to go to the ADL House.

I like the shredder.

I like playing games with kids there. I want to be with more kids who can talk.



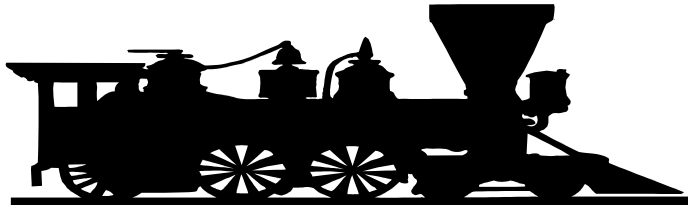
I like going into the community to practice spending money.

My goal is to buy something by myself.

I like sorting coins.

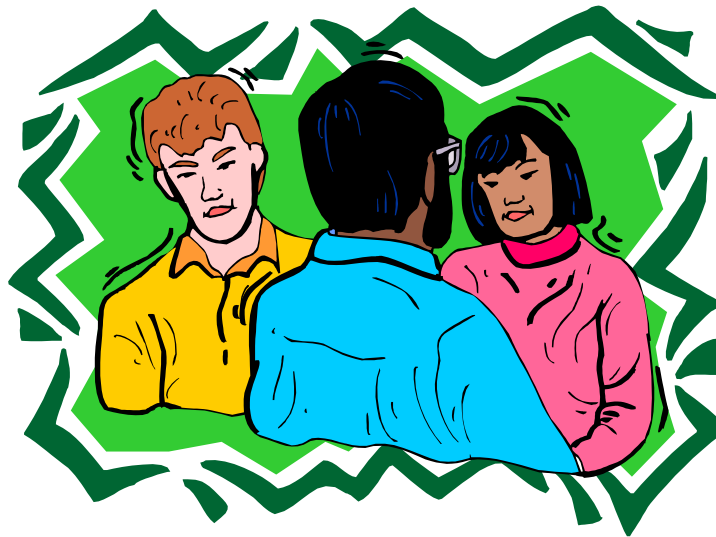






Thanks for coming to my meeting.

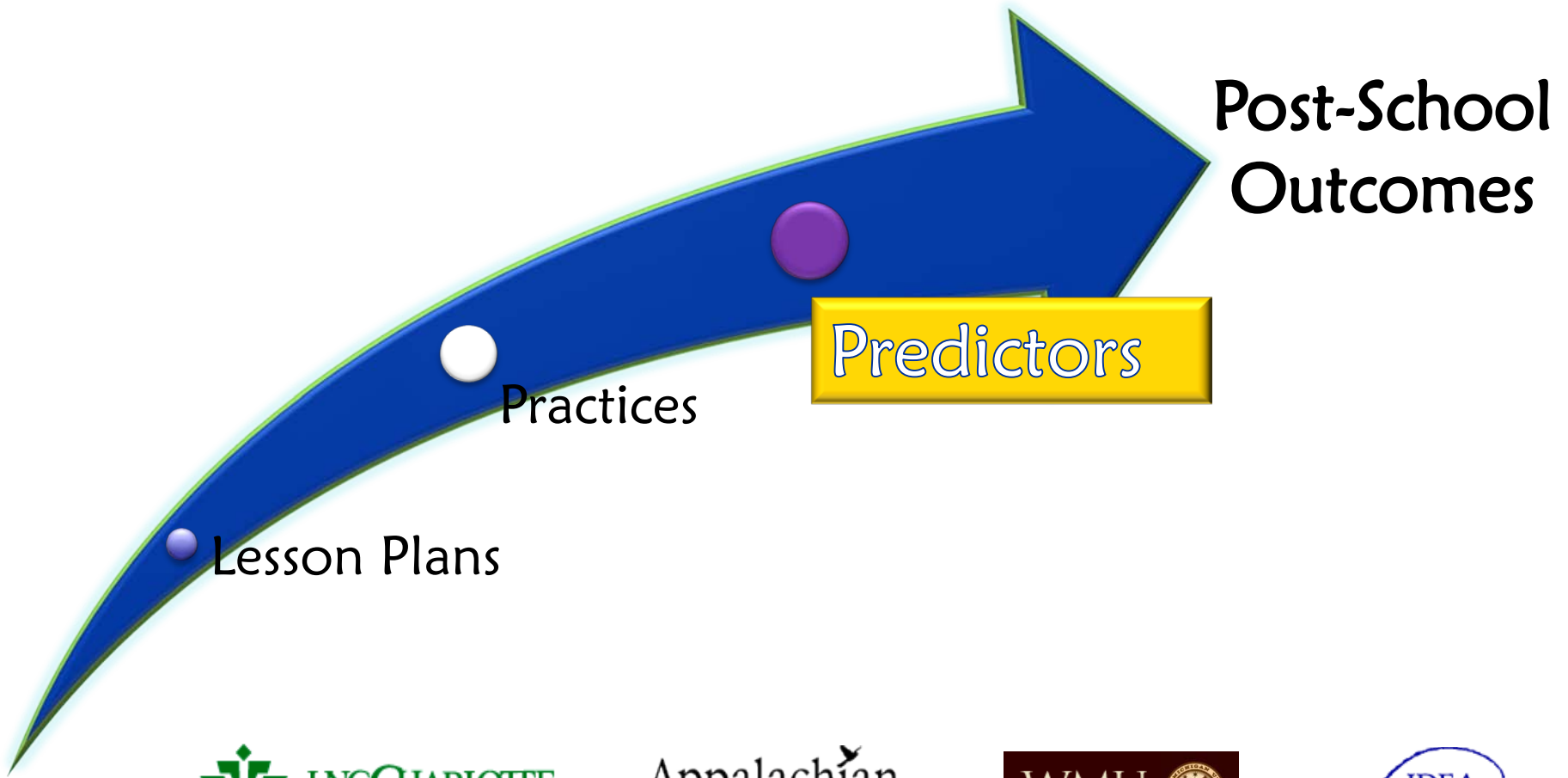
I look forward to school next year.

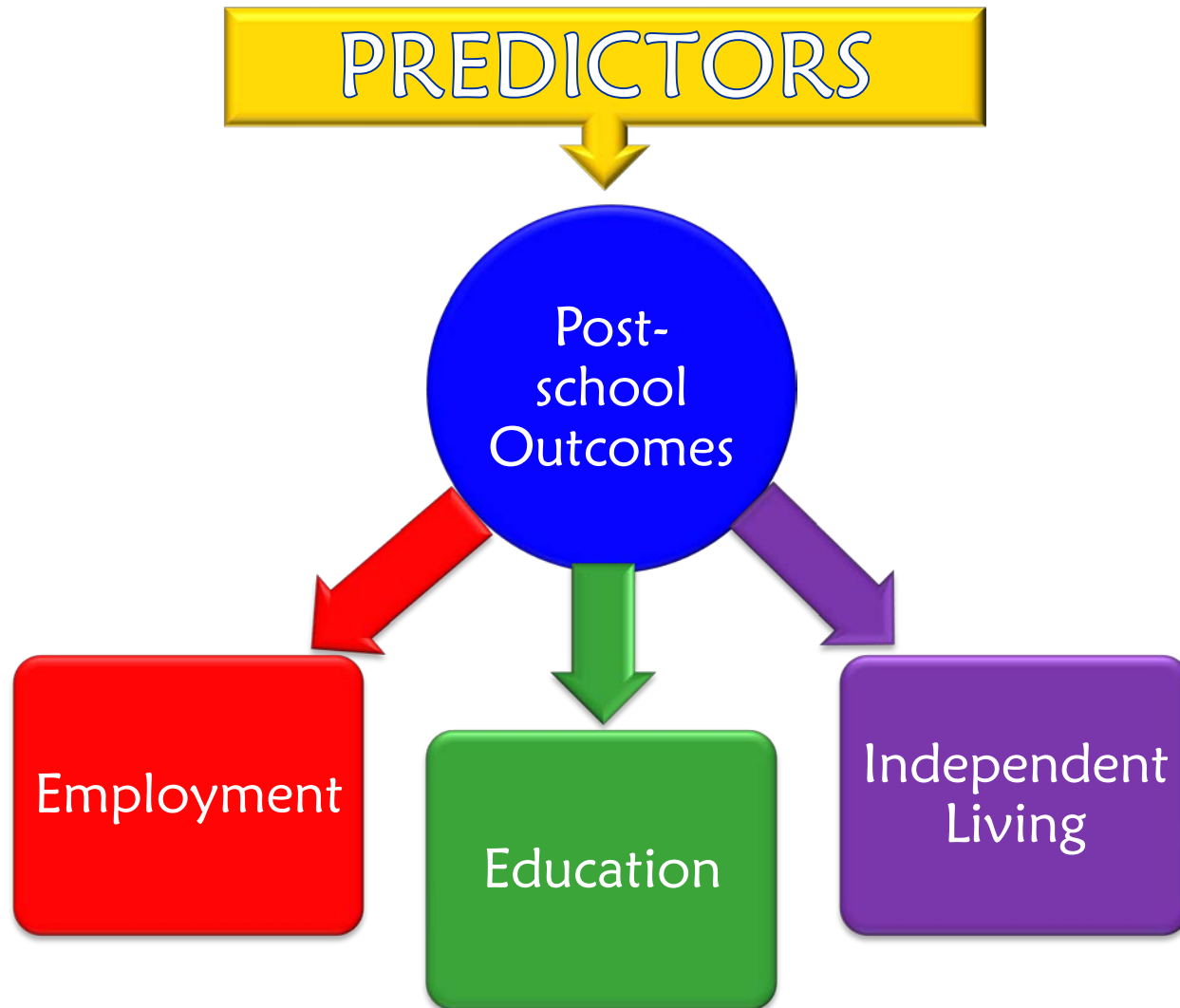




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# The Missing Link





# In-School Predictors by Post-School Outcome Area

| Predictors/Outcomes                                 | Education | Employment | Independent Living |
|-----------------------------------------------------|-----------|------------|--------------------|
| •Career Awareness*                                  | P         | P          |                    |
| •Community Experiences                              |           | P          |                    |
| •Exit Exam Requirements/High School Diploma Status* |           | P          |                    |
| •Inclusion in General Education*                    | M         | M          | M                  |
| •Interagency Collaboration                          | P         | P          |                    |
| •Occupational Courses*                              | P         | P          |                    |
| •Paid Employment/Work Experience *                  | M         | M          | P                  |
| •Parental Involvement                               |           | P          |                    |
| •Program of Study                                   |           | P          |                    |

M = moderate; P = potential; \* = included students with ASD

# In-School Predictors by Post-School Outcome Area

| Predictors/Outcomes                | Education | Employment | Independent Living |
|------------------------------------|-----------|------------|--------------------|
| •Self-Advocacy/Self-Determination* | P         | P          |                    |
| •Self-Care/Independent Living*     | P         | P          | M                  |
| •Social Skills*                    | P         | P          |                    |
| •Student Support*                  | P         | P          | P                  |
| •Transition Program*               | M         | P          |                    |
| •Vocational Education*             | M         | M          |                    |
| •Work Study*                       | M         |            |                    |

M = Moderate; P = Potential; \* Included students with ASD



## For More Information on Secondary Transition

1. National Secondary Transition Technical Assistance Center ([www.nsttac.org](http://www.nsttac.org))
2. National Dropout Prevention Center for Students with Disabilities ([www.ndpc-sd.org](http://www.ndpc-sd.org))
3. National Post-school Outcomes Center ([www.psocenter.org](http://www.psocenter.org))
4. National Longitudinal Transition Study – 2 ([www.nlts2.org](http://www.nlts2.org))
5. Transition Coalition ([www.transitioncoalition.org](http://www.transitioncoalition.org))
6. On-Campus Outreach ([www.education.umd.edu/ocol](http://www.education.umd.edu/ocol))
7. PACER Center ([www.pacer.org](http://www.pacer.org))



**National Secondary Transition  
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## Contact Us

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