CONNECT
The Center to Mobilize Early Childhood Knowledge

CONNECT Modules: An Evidence-Based Practice Approach to Professional Development

Pam Winton & Chih-Ing Lim
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Context: Practitioners are Expected to Use Evidence-Based Practice
Context: PD Providers are Expected to Incorporate EBP on Inclusion into PD

But what does that mean?
Evidence-Based Practice is......

identifying specific research-based practices that have been validated through a rigorous review process and integrating the best available research evidence with family & professional wisdom & values.

Buysse & Wesley, 2006; Buysse, Wesley, Snyder, & Winton, 2006; Odom, Brantlinger, Gersten, Horner, Thompson, & Harris, 2005
Two Components of Evidence-Based Professional Development on Inclusion

The PD **content** focuses on specific research-based teaching and intervening practices.

The PD **delivery** focuses on evidence-based methods for building practitioners’ knowledge and application of evidence-based practices.
CONNECT Modules: Practice-focused approach

Research-Based Practices on Inclusion
Innovation: An Approach for Incorporating EBP into PD

5 Step Learning Cycle™ - Process for Making Evidence-Based Practice Decisions
Context: Focus on Clinical Practice
Early Childhood Inclusion: A Joint Position Statement of DEC and NAEYC

Defining Inclusion

Today an increasing number of infants and young children with and without disabilities play, develop, and learn together in a variety of places—homes, early childhood programs, neighborhoods, and other community-based settings. The notion that young children with disabilities and their families are full members of the community reflects societal values about promoting opportunities for development and learning, and a sense of belonging for every child. It also reflects a reaction against previous educational practices of separating and isolating children with disabilities. Over time, in combination with certain regulations and protections under the law, these values and societal views regarding children birth to 8 with disabilities and their families have come to be known as early childhood inclusion.¹

The most far-reaching effect of federal legislation on inclusion enacted over the past three decades has been to fundamentally change the way in which early childhood services ideally can be organized and delivered.² However, because inclusion takes many different forms and implementation is influenced by a wide variety of factors, questions persist about the precise meaning of inclusion and its implications for policy, practice, and potential outcomes for children and families.

The lack of a shared national definition has contributed to misunderstandings about inclusion. DEC and NAEYC recognize that having a common understanding of what inclusion means is fundamentally important for determining what types of practices and supports are necessary to achieve high quality inclusion. This DEC/NAEYC joint position statement offers a definition of early childhood inclusion. The definition was designed not as a litmus test for determining whether a program can be considered inclusive, but rather, as a blueprint for identifying the key components of high quality inclusive programs. In addition, this document offers recommendations for how the position statement should be used by families, practitioners, administrators, policy makers, and others to improve early childhood services.
... three defining features of inclusion

ACCESS

PARTICIATION

SUPPORTS

Handout: Research Synthesis Points on Quality Inclusive Practices

In April 2003, two national organizations working on behalf of young children—the Division on Early Childhood of the Council for Exceptional Children (DEC) and the National Association for the Education of Young Children (NAEYC)—released a joint position statement on inclusion. This document provides a framework for understanding the complex and multifaceted nature of inclusive practice and offers practical guidance for educators and other professionals working in early childhood settings.

The document identifies three key domains of practice that support high-quality inclusive education:

1. **Access**—removing physical barriers, providing a wide range of activities and environments, and promoting the development of individual children.
2. **Participation**—using a range of instructional and intervention approaches to promote engagement in play and learning activities, and a sense of belonging for every child.
3. **Supports**—creating an infrastructure of systems-level supports for implementing high-quality inclusive practices.

Citations for each practice include a list of relevant research and policy documents. This document is intended to support educators and policymakers in their efforts to create inclusive learning environments for all children.
## Connecting Policies, Research & Practice

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Our Target Audience

• 2-year and 4-year early childhood college faculty

• Other professional development providers
What Faculty and PD Providers Want

- Short video clips that illustrate practice
- Activities
- 24/7 availability
- Flexibility & ease of use
Now Available  (English and Spanish versions)

- Module 1: Embedded Interventions
- Module 2: Transition
- Module 3: Communication for Collaboration
- Module 4: Family-Professional Partnerships
- Module 5: Assistive Technology Interventions
- Module 6: Dialogic Reading Practices

COMING SOON

- Module 7: Tiered Instruction (Academic and Social Emotional)
- Portuguese translation of Module 1
Step 1: Dilemma

Family child care provider’s perspective (Ms. Mary)

Family’s perspective (Holly)
Step 2: Question

For young children who have language and physical impairments, are assistive technology interventions effective in promoting learning and development?
Step 3: Evidence

- Research
- Policies
- Experience-based knowledge

Definition/Demonstration of Practice

Step 1: Dilemma
Step 2: Question
Step 3: Evidence
Step 4: Decision
Step 5: Evaluation
Step 1: Dilemma

Step 2: Question

Step 3: Evidence

Step 4: Decision

Step 5: Evaluation

Research

Research Summary on Assistive Technology Interventions

A research synthesis reviewed 104 articles published from 1980 through 2004 on the use of assistive technology (AT) with infants and young children (Campbell, Melbourne, Dorgan, & Walco, 2006). Of the 104 articles, 77 were descriptive studies or discussion-oriented articles about recommended AT practices and 23 reported the results of studies that focused on teaching children how to use AT. All of the studies focused on whether children could learn how to use AT rather than the effects of AT on children's learning and development.

How were AT practices defined and implemented?

Most of the 23 studies focused on teaching children switch activation use (e.g., to activate computerized toys). A number of studies examined strategies to teach young children to use power mobility devices (e.g., motorized wheelchairs) and computers. Only one of the 23 studies reported on the effectiveness of teaching young children to use augmentative communication devices. Information about who facilitated children's use of AT was not provided in the review. Therefore, it is unclear whether teachers, family members, or researchers implemented the AT practices with children who participated in this research.

What were the characteristics of the participants and settings?

Across all studies, the sample size ranged from 1-120 children. The infants and young children ranged in ages from 2.5 to 60 months and were reported as having cerebral palsy, severe multiple disabilities, physical disabilities, global developmental delays, mild mental retardation, speech and language delays, and Down syndrome. The review did not describe the characteristics of the settings in which children used AT.

What were the key findings related to children's use of AT?

As a whole, the studies provided relatively strong evidence that children as young as 12 months with various types of disabilities and developmental delays could be taught to operate switches to activate toys and other devices. The results of studies examining children's use of augmentative communication, power mobility devices, and computers were inconclusive due to insufficient research or problems with the research design. Across all studies and AT devices, the review found that the primary teaching setting was providing opportunities for involvement.

Bottom line

Research on AT has shown that even very young children with physical disabilities and developmental delays can learn how to use AT devices successfully. However, further research is needed to evaluate the intervention effectiveness of AT not just on performing isolated skills but for promoting children's successful participation and learning within the context of everyday activities.
Policy Advisory
The Law Concerning Assistive Technology Interventions

How does the law define assistive technology for young children with disabilities? How do children, their families, and professionals such as you access the technology?

Bottom Line
The best methods for making assistive technology available to young children and their families and educators derive from the law itself. Below are your roles and responsibilities to better understanding the law as it relates to assistive technology (AT).
1. Know how Congress defines assistive technology devices and services.
2. Learn which types of devices and services are represented under assistive technology.
3. Understand the immediate and long-term purposes of AT and how it can increase a child’s functioning and learning.
4. Know that IDEA and Sec. 504 provide that assistive technology devices and services are reasonable accommodations (Sec. 504) or related services (IDEA).
5. Identify the name and functions of the state assistive technology agency.
6. Identify which professionals and disciplines are most expert in assistive technology for each child you serve and who the local experts are.

Definitions
Depending on who you ask and what context you are in, there are different definitions used for assistive technology.

A Practical and Basic Definition
The definition used in the module is practical and basic, the sort of definition educators and other professionals are well justified in using.

Assistive technology (AT) interventions involve a range of strategies to promote a child’s access to learning opportunities, from making simple changes to the environment and materials to helping a child use special equipment. Combining AT with effective teaching promotes the child’s participation in learning and relating to others.

A Legal Definition
Second is the legal definition, the sort of definition that Congress uses in the Technology-Related Assistance Act of 1988, as amended and commonly known as the “Tech Act” (29 U.S.C. Sec. 3000 at seq.), the Individuals with Disabilities Education Act, and the Rehabilitation Act.
Definition and Demonstration of the Practice

Step 1: Dilemma
Step 2: Question
Step 3: Evidence
Step 4: Decision
Step 5: Evaluation
Examples of Assistive Technology Adaptations

Adaptations for young children often involve modifications of existing toys, learning materials, or other everyday items. These adaptations can serve a wide variety of purposes so that children can participate in all types of learning opportunities. Below are some examples of adaptations for self-help, toys and play areas, communication and literacy, and mobility and positioning.

1. Self Help

A zipper pull makes dressing easier for a child. You can buy zipper pulls or make one using a key chain as seen here.

Non-slip shoe liners can be used in stabilize objects, such as a plate or bowl during mealtime.

A child can use a bath mitt to more easily participate in bathing. Washing with a bath mitt could be easier than holding onto a wash cloth. Bath mats can also be used to assist in grasping objects. Secure Velcro to the object and the bath mitt will cling to the Velcro making it easier for the child to pick up the object.

2. Toys & Play Areas

Confining toys to a box, lid, funnel, or planter base keeps the toys within the child’s reach and vision.

Step 1: Dilemma  >  Step 2: Question  >  Step 3: Evidence  >  Step 4: Decision  >  Step 5: Evaluation
Activities

Identify appropriate assistive technology equipment

Name: ___________________________ Date: __________

To complete this activity form electronically, remember to first save your file. If you need further assistance, see the Help & FAQs on pdf.

Instructions

Review Handout 5.2, Examples of Assistive Technology Equipment. Then, answer the questions below about which types of assistive technology (AT) equipment each child might benefit from most.

1. Ronny is a normally developing three-year-old boy. His mom has enrolled him in a family child care center, but she is concerned Ronny will not be able to communicate with his teacher and other children at the center. Looking at Handout 5.2, what type(s) of AT equipment could Ronny use to help him communicate?

2. Maria is a two-year-old girl who loves playing with dolls and stuffed animals. One of Maria’s favorite toys is Dolly, which has a small button on its back that you push to make it talk. Maria has physical impairments and struggles with fine motor skills. It is difficult for her to push the small button. Looking at Handout 5.2, what type of AT equipment could allow Maria to make Dolly talk?

3. Jaden is a four-year-old boy who cannot walk on his own. His teacher would like him to be able to participate more in the classroom, including in games such as Red Light, Green Light. Looking at Handout 5.2, what type of AT equipment could help Jaden participate more in class?

Hints

Step 1: Dilemma
Step 2: Question
Step 3: Evidence
Step 4: Decision
Step 5: Evaluation
Experience-based knowledge

CONNECT Modules

Step 1: Dilemma

Step 2: Question

Step 3: Evidence

Step 4: Decision

Step 5: Evaluation

Patsy Pierce on Assistive Technology

Speech-Language Pathologist’s Perspective

Parent’s Perspective

Robin Wisner on Assistive Technology

Researcher’s perspective on working with diverse children

Shelia Bridges-Bond on Assistive Technology
Step 4: Decision

**Unique Perspectives & Contexts of the Dilemma**
- Evidence
  - Research
  - Policies
  - Experience-based knowledge

Integrate

**Decision**
- Plan for implementation
- Identify, review and select strategies

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</table>
Implementation Plan

Sophie’s Assistive Technology Plan

Learning or Participation Goal:
Sophie will make requests, express thoughts and share information with others throughout the day.

What is currently happening? Sophie has a few words, and uses some noises and gestures to make requests. She gives hugs and is affectionate when she is happy and cries when she is upset. She generally does not interact with the other children at Ms. Mary’s.

What would you like to see happen? The team would like Sophie to be able to make choices and requests during daily routines and activities, such as mealtime, playtime, outside time, story time, and bedtime. They would like Sophie to make comments about herself, others, and her environment.

Idea for Assistive Technology
1. How can we change the environment? Place picture boards throughout the home and at Ms. Mary’s house.
2. How can we change the activity? Encourage siblings at home and peers at Ms. Mary’s to model and use communication boards with Sophie.
3. How can we change the materials? Holly and Ms. Mary will provide pictures of family members, peers, and some of Sophie’s other “favorites” for use on her communication boards.
4. What equipment can we provide? Communication boards will be created for individual activities and routines (mealtime, outside time, story time, doll play, block play, arts & crafts, and bedtime). A general or “core” board will also be created. The boards will be in a binder for Sophie to carry.
5. How can we change the schedule? NA
6. How can we adapt the instructions? NA

Teaching Strategies
How will you support the child in using AT? Holly and Ms. Mary will use aided language stimulation to model how to use the communication boards in as many opportunities as possible with Sophie. Initially, Holly and Ms. Mary can use hand-over-hand assistance to show Sophie’s finger and help her make a choice. Then that can lead to a more subtle pointing or verbal cues as Sophie gains competence.

Step 1: Dilemma
Step 2: Question
Step 3: Evidence
Step 4: Decision
Step 5: Evaluation
Step 5: Evaluation

Determine if the intervention was implemented?
Determine if the intervention was effective?
Summarize and use assessment results to determine if the goal(s) are met.
AT Implementation and Evaluation Checklist

Activity/Routine:

What does the child want to do or what does the team want the child to do?

We will use the following checked (✓) adaptations, AT, or instruction so that the child will be successful:

<table>
<thead>
<tr>
<th>Adaptation/AT Strategies</th>
<th>Describe what will occur</th>
<th>What will the child be expected to do?</th>
<th>How will the device be created/obtained and by who?</th>
<th>Date we started using this strategy</th>
<th>Date ended</th>
<th>How did this work?*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Changes</td>
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<td>Equipment</td>
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<td>Schedule</td>
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<td>Activity</td>
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<td>Materials</td>
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<td>Adapted instructions</td>
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<td><strong>Teaching Strategies</strong></td>
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<tr>
<td>Demonstration</td>
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<tr>
<td>Hand-over-Hand assistance</td>
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<td>Time Delay</td>
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<tr>
<td>Other</td>
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*Rate the effectiveness of the strategy with + (worked well), - (did not work well), +/- (worked sometimes but not always)

Comments:

CONNECT - 2011
http://community.lpg.unc.edu/
Identify appropriate assistive technology equipment

Objective(s)
Learners identify appropriate assistive technology (AT) equipment for children with disabilities.

Description
In this activity, learners review examples of AT equipment and identify which items could be helpful for three children described in the activity.

Required Materials/Resources
Learner Materials
• Handout 5.2: Examples of Assistive Technology Equipment

Detailed Facilitator Instructions
1. Have learners review the handout.
2. Have learners answer the activity questions.
3. Provide Feedback.

Suggested Assessment
1. Augmentative communication devices (e.g., a picture or object communication board)
2. Switch adapted toys (e.g., use of a large switch to activate Dolly’s talking)
3. Mobility devices (e.g., a scooter board or walker)

Hints provided to learner:
View Handout 5.1: Examples of Assistive Technology Equipment to find answers.

Facilitation Tips
• Learners can respond in class, online, or using the PDF Form, which can be printed, emailed, or submitted online.
• Break into groups to discuss and respond.

Alternate Version(s)
• Activity 5.4b: Find types of assistive technology equipment (Structured Exercise)

Credits
The CONNECT Content Team

CONNECT - 2011
http://community.fpg.unc.edu/connect-modules
# CONNECT Module Discussions

## Featured Discussions

**CONNECT Module 5: Assistive Technology Interventions in an Online Course**  
By Kathy Allen

How have you engaged students to learn about effective practices in an online environment? Kathy Allen from Blue Ridge Community College shares her experience on using CONNECT Module 5 with her students. Read about what she did and share your examples.

[Read More and Comment](#)

**NC B-K Consortium CONNECT Workshop Discussion Board**  
By CONNECT Team

The recent CONNECT workshop at the NC B-K consortium was a terrific way to dive deeper into using the modules. The CONNECT team so much enjoyed meeting everyone and hearing people who have used the modules share their experiences. Let’s keep the conversation going!

[Read More and Comment](#)

## Discussions by CONNECT Module

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<th>Module 4 Family-Professional Partnership</th>
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| **Embedding Module 1 into an In-Service Setting**  
by Sandy Ginther and Linda Robinson  
(10+ comments)  
Setting: In-Service  
Primary discipline: Early childhood special education  
Format: Face-to-Fac | **Transition and Therapy Services**  
by Christine Myers  
(10+ comments)  
Setting: 4-year IHE  
Primary discipline: Occupational Therapy | **Communication - it’s more than just words**  
by Hatice Dogan  
(20+ comments)  
Setting: Graduate Primary discipline: Early childhood  
Course: Families and Teams (Interdisciplinary)  
Format: Face-to-Face | **Using Module 4 Family-Professional Partnerships to Enhance Students’ Understanding of Families and the NAEYC Professional Preparation Standards**  
by Nancy Grausam  
(30+ comments)  
Setting: 2-year IHE  
Primary discipline: Early childhood  
Course: Young Children with Special Needs  
Format: Face-to-Face |

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**CONNECT**  
**EPC Child Development Institute**
### Module 1: Embedded Interventions

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<td>Knowledge and Skill Base for All Beginning Early Childhood Special Education/Early Intervention (Birth to Age 6)</td>
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<td>1a. Knowing and understanding young children's characteristics and needs</td>
<td><strong>CEC/DEC Standard 1</strong>: Foundations—Knowledge, evidence-based principles, laws, and diverse historical points of view.</td>
</tr>
<tr>
<td>1b. Knowing and understanding young children's characteristics and needs</td>
<td>CEC/DEC Standard 3: Individual Learning Differences—Know evidence-based practices validated for certain characteristics of learners. Understand the influence of culture, primary language, and social and physical environments.</td>
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<td><strong>NAEYC Standard 2</strong></td>
<td>CEC/DEC Standard 5: Instructional Strategies—Use and develop a repertoire of evidence-based instructional strategies that promote the success of children.</td>
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<td>2a. Using developmentally effective approaches to connect with children and families</td>
<td>CEC/DEC Standard 6: Language—Understand typical and atypical language development and individualize strategies to enhance language and communication skills.</td>
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<tr>
<td>2b. Knowing and understanding effective and safe methods to work with families</td>
<td>CEC/DEC Standard 7: Instructional Planning—Celebrate long-term progress, goals.</td>
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<td><strong>NAEYC Standard 3</strong></td>
<td>CEC/DEC Standard 8: Professional and Ethical Practices—Demonstrate commitment to engage in evidence-based practices.</td>
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**UNC**
FPG Child Development Institute
Aligning CONNECT Modules with OSEP Indicators and Outcomes

The state administrators in charge of early intervention services (Part C of IDEA) and preschool disabilities services (Part B Section 619 of IDEA) have certain reporting requirements to the US Department of Education – Office of Special Education Programs (OSEP).

Part C Early Intervention and Part B Section 619 coordinators must demonstrate yearly progress in Annual Performance Reviews (APR) of their State Performance Plans (SPP) towards performance indicators in nine areas related to early childhood outcomes. Part C has 14 indicators and Part B has 20 indicators on the SPP/APR. All states must have an improvement plan which typically includes professional development activities.

The content, activities and resources of CONNECT Modules 1, 2, 4, and 5 can be used by professional development providers to help states make progress towards the following OSEP Indicators: Part C Indicators =2, 3, 4, & 8. Part B Indicators=6, 7, 8, & 12. CONNECT Modules are free online resources for faculty and professional development providers. They can be found at http://community.fpg.unc.edu/

Module 1: Embedded Interventions

Part C

Indicator 2: Settings
Percent of infants and toddlers with IFPSs who primarily receive early intervention services in the home or community-based settings.
(20 U.S.C. 1416(a)(3)(A) and 1442)

Indicator 3: Child Outcomes
Percent of infants and toddlers with IFPSs who demonstrate improved:
A. Positive social-emotional skills (including social relationships);
B. Acquisition and use of knowledge and skills (including early language/communication); and
C. Use of appropriate behaviors to meet their needs.
(20 U.S.C. 1416(a)(3)(A) and 1442)

Indicator 4: Family Outcomes
Percent of families participating in Part C who report that early intervention services have helped the family:
A. Know their rights;
B. Effectively communicate their children’s needs; and
C. Help their children develop and learn.
(20 U.S.C. 1416(a)(3)(A) and 1442)
Email: connect@unc.edu
Join us at the 2012 National Early Childhood Inclusion Institute Pre-Conference Workshop

Transforming Your Professional Development: Applying an Evidence-based Practice Approach

Monday, May 14, 2012 - Chapel Hill, NC
8:30am to 12:00pm
Registration fee: $35 includes breakfast, a break, lunch and materials

http://inclusioninstitute.fpg.unc.edu/pre-conference
Questions