



Overview of CONNECT Module Development, Design, Evaluation and Implementation

Early childhood practitioners are expected to know about and use evidence-based practices (EBP) to meet the individual learning and socialization needs of each child. Faculty and professional development (PD) providers work under a similar expectation. They are often required to embed evidence-based practice into their personnel preparation programs and PD efforts. A challenge in meeting these expectations is the lack of clarity around the meaning of the term EBP and the absence of guidance about how to support practitioners in learning about and using EBP. Two meanings of EBP have been discussed in the literature. CONNECT has combined both of these meanings and is defining EBP as *specific teaching and intervening strategies* that have been validated through rigorous review (Odom et al., 2004), along with a *decision-making process* that practitioners can use to integrate various sources of evidence such as research, and family and clinical experiences and values (Buisse & Wesley, 2006). This definition is then translated into a 5-step learning cycle for use in professional development. The 5-step learning cycle is modified from Buisse and Wesley's (2006) adaptation of the 5-step decision-making process developed in evidence-based medicine (Sackett et al, 2000).

The CONNECT project has developed free online instructional modules for faculty and other PD providers so they can provide evidence-based professional development to early childhood practitioners. Each CONNECT module focuses on a discrete practice in a key content area (e.g., inclusion, family-professional partnerships, transitions) and is organized around the 5-step learning cycle. Each module has a similar structure that includes a definition and video demonstrations of the practice, multiple sources of knowledge directly related to the practice, activities, handouts, and opportunities for

learner self-assessment. Within that structure, modules are designed to be flexible in order to address individual learner needs and the variety of professional development contexts in which modules might be used (e.g., coursework, practica, seminars, workshops, consultation, supervision, Communities of Practice).

The purpose of this document is to describe the CONNECT approach to module development and support for faculty implementation. The approach taken in developing the CONNECT modules and supporting faculty use of them is based on an adaptation of a Knowledge-to-Action (KTA) Framework developed by Graham et al. (2007). The KTA framework is based on distillation of the common steps in 31 different theories and frameworks focused on the process of knowledge translation (Graham, Tetroe, & KT Theories Research Group, 2007).

Module Development, Dissemination, and Evaluation

This next section describes the CONNECT sequence for developing, disseminating and evaluating the modules, as illustrated in Figure 1.

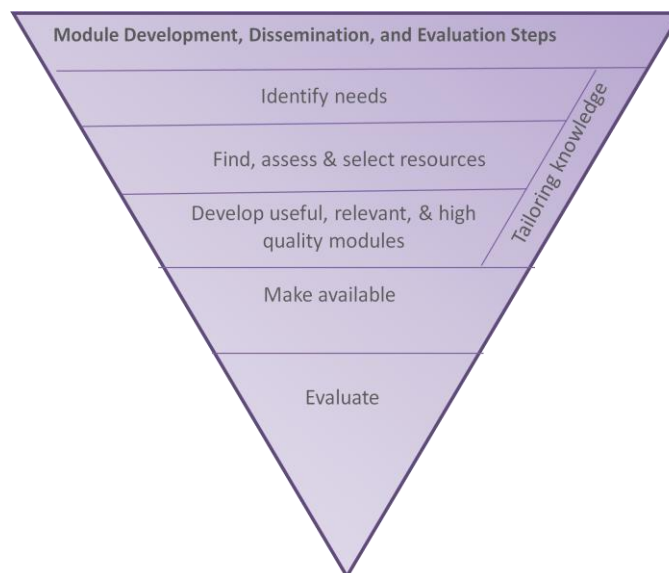


Figure 1. Module Development, Dissemination and Evaluation.

CONNECT identifies needs. CONNECT consulted the literature and conducted a needs assessment to understand the content needs and interests of faculty and other

PD providers and to get their advice on features of online instructional resources that would make their work easier. This information contributed to decisions about the broad content focus and design features of modules developed by CONNECT. Identifying a discrete practice or set of practices validated by research within broad content areas is an important task for CONNECT staff.

CONNECT finds, accesses, and selects information sources. With the advent of technology and the exponential increase in the amount of information available, PD faculty and learners face an “information glut” when searching for credible and relevant information on a given topic. CONNECT finds, selects and tailors information to provide faculty and PD providers with a focused set of reliable evidence related to specific practices.

CONNECT organizes information to be useful, relevant and of high quality. The next task in the design sequence relates to organizing content and sources of evidence into the five-step learning cycle. In Step 1 the learner considers a realistic dilemma to be solved. The dilemma is presented from the perspectives of family members and the practitioners in the dilemma. This situates the PD in a realistic practice context that runs as a thread through the entire module. In Step 2 the learner identifies a practice-focused question within the dilemma that can be answered through various sources of evidence including the best available research. This step helps the learner move from the dilemma, which raises all kinds of possible foci and questions, to a specific practice focus and establishes the problem-solving context for the learner. The learner is guided in using the PICO, a tool developed in evidence-based medicine, to identify characteristics and intervention needs of the child, family and program, and an intervention practice to investigate in Step 3 that could be effective in addressing those needs. In Step 3 the learner identifies and appraises key sources of evidence related to the practice focus. This process includes further defining the practice focus and learning to recognize examples of it by observing video clips of the practice, followed by observations in real practice settings. The sources of evidence that learners are

exposed to include the following: (a) laws (e.g., IDEA) and policies (e.g., Head Start Performance Standards) related to the practice; (b) a summary of the best available research evidence on the practice; and (c) experience-based knowledge based on the perspectives of practitioners and families about the implementation of the practice. In Step 4 the learner integrates that information and then appraises its relevance to the unique context of the dilemma (e.g., the practice setting(s), characteristics of child, values of family, their own values and experiences) in order to make an informed decision and develop a plan for implementation. In Step 5 the learner describes how to evaluate the impact of the practice decision in order to assess and refine practice.

Each online module has a similar structure. Content is organized into the five-step learning cycle and includes learner activities, audio clips of interviews, video clips of practice, and self-assessment strategies. An instructor's guide for each module includes the following: NAEYC and DEC personnel standards related to the practice focus; U.S. Department of Education, OSEP, SPP APR indicators related to the practice; facilitation tips for implementing the learner activities; alternate activities; and learner assessment strategies. In addition an online discussion forum is available for sharing ideas, challenges and approaches for using the modules. A set of rubrics, *Rubrics for Developing CONNECT Modules*, developed with input from key stakeholders, guides the development and evaluation of modules. (See Appendix A)

CONNECT makes modules available. CONNECT uses a variety of strategies for disseminating information to faculty about the availability of the modules. These include broadcast announcements through listservs and networks, partnerships with multiple national and federal organizations, agencies and networks, presentations, workshops, and webinars.

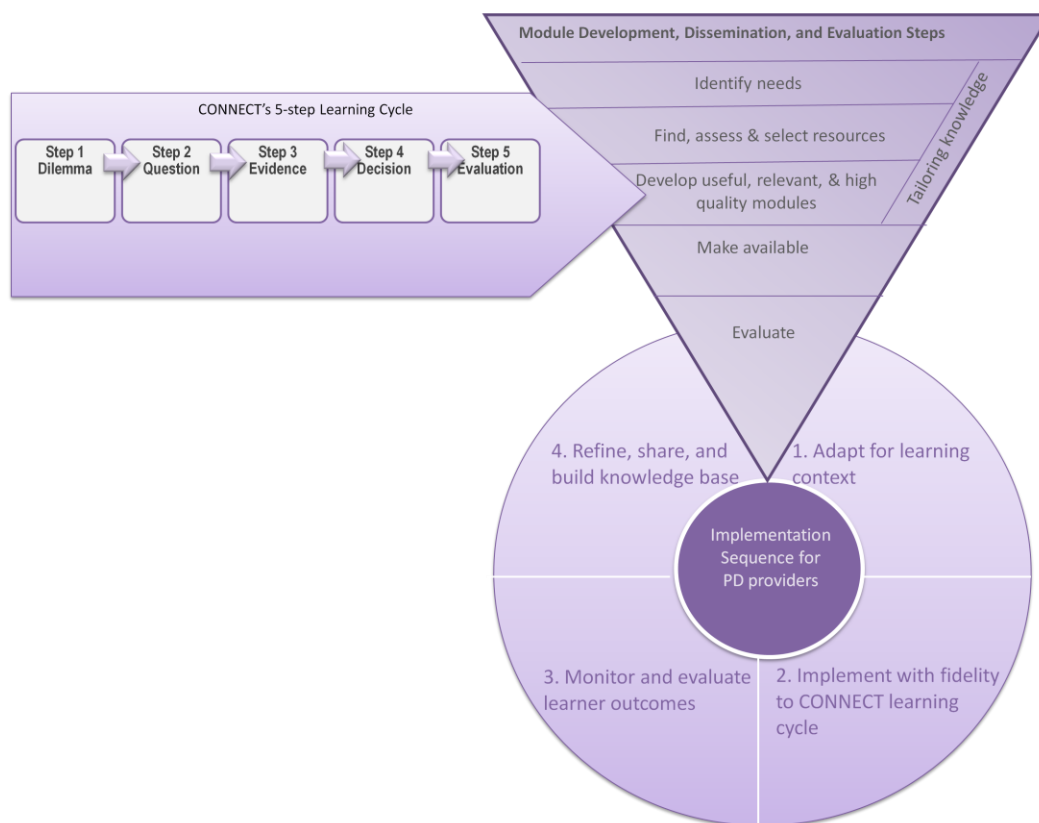
CONNECT evaluates. CONNECT conducted a pilot test of Module 1 from January to June 2010 to document and determine the use, relevance, and quality of the modules

for faculty. CONNECT is also field testing all other modules as they become publicly available.

Support for Faculty Implementation

Faculty play a critical role as “knowledge mediators” in designing teaching and learning experiences that support the acquisition and application of practitioners’ knowledge, skills and dispositions. They are the primary target audience for the CONNECT modules. Other PD providers are the secondary audience. This section describes the support CONNECT provides the target audience in implementing the modules.

Figure 2 depicts the intersection between the CONNECT module development, dissemination and evaluation process including the rendering of content into the 5-step learning cycle, and the support to faculty and PD providers provided by CONNECT to implement the modules.



Adaptation of the resources for unique learning context. Faculty and other PD providers offer professional development to learners in a variety of roles (e.g., preservice students, practitioners, administrators) through a range of approaches (e.g., coursework, practica, workshops, supervision, mentoring, consultation, coaching). The modules are designed with this in mind. Instructional aides and alternate activities are provided in the modules to enable faculty to align the characteristics of their learners with the resources faculty might use to teach the practice-focused content that is the focus of the module. In a concept paper on professional development (Buisse, Winton, & Rous, 2009; NPDCI, 2008), the National Professional Development Center on Inclusion (NPDCI) recommended aligning the “who, what, and how” when planning and implementing professional development.

Fidelity to the CONNECT learning cycle. CONNECT strongly recommends faculty maintain adherence to the CONNECT learning cycle when adapting and using the modules. As already mentioned, CONNECT anticipates and encourages faculty to adapt and use the module resources to address the characteristics and needs of the learners. Faculty also have needs, characteristics, and teaching environments that will affect usage. Some might assign learners to read content, view video clips and complete activities outside of class in preparation for in-class discussions. Others might download and copy materials to bring to class without ever sending learners to the website. The modules are designed to address different approaches to use and can be used flexibly. The innovative aspect of the CONNECT modules is the focus on a discrete set of research-based practices and the design and organization into the five-step learning cycle designed to build evidence-based practice decision-making skills. This is why it is strongly recommended that the learning cycle be followed, regardless of the context or format used, if the desire is to incorporate EBP into PD.

Monitor and evaluation learner outcomes. Faculty need tools and strategies to assist them in assessing desired outcomes for learners. That is an important role that CONNECT plays in supporting implementation of the modules.

Refine and share uses and outcomes with others. As mentioned already, an aspect of the instructional support for faculty and PD providers is an online discussion forum, an online environment for conversations about module use (e.g., examples, instructional dilemmas and challenges, advice, and successes). Faculty and PD providers will learn from each other about ways to adapt and use the CONNECT modules, leading back to the starting point in the implementation sequence.

This final step is important for two reasons. First, this activity promotes continuous improvement in how faculty and PD providers use the modules to provide effective professional development. Second, the exchange of information helps build an experiential knowledge base on professional development related to a particular content area. The Lakota Sioux have a proverb, “One who learns from one who is learning drinks from a running stream”, and that is the purpose of the online forum – an opportunity for faculty to learn together.

In summary the CONNECT Knowledge-to-Action Framework illustrates how the project develops modules and supports faculty and PD providers in using them. The EBP approach to PD has implications for how PD curricula are organized. The concept of focusing curricula on key practices and organizing and distilling the huge glut of potentially relevant evidence (e.g., research, laws, policies) into digestible chunks for learners provides a focus for those who design professional development modules and textbooks (e.g., faculty, PD providers, agencies, organizations, publishers). The 5-step learning cycle provides a framework for organizing the chunks of evidence into a meaningful learning sequence that reflects the literature on how adults learn (Trivette, 2005; Wei et al., 2009)(e.g., realistic cases to solve, active engagement in content, alignment with standards) and builds on a proven model from medicine for helping practitioners make practice decisions. The approach and related curricula have positive

implications for PD providers, making it easier for them to stay abreast of the latest research. They have access to consolidated and focused evidence and practice demonstrations that are often hard to find and distill in relevant and useful ways. The approach acknowledges that all practitioners need certain foundational knowledge which can be obtained through any number of PD approaches, but beyond that practitioners must be problem solvers who can draw upon funds of knowledge and evidence to address the daily practice challenges of working with young children and their families. They need practice-focused decision-making skills to do that. This approach to PD enhances the abilities of practitioners to do what they need to do on a daily basis to work effectively with each and every child and family.

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