---Components of the Autism Focused Intervention Resources & Modules (AFIRM)---

This resource provides an overview of the Autism Focused Intervention Resources and Modules and includes descriptions of the following AFIRM components:

1. **Learn with AFIRM**: A summary of the learning features of AFIRM, including the module structure and who can use AFIRM.

2. **EBP Modules**: An overview of the EBP modules, including definitions of each EBP and what ages and domains research has demonstrated effectiveness for the EBP.

3. **Resources**: A summary and example of each AFIRM resource. AFIRM resources include: Evidence-base, Step-by-Step Guide, Implementation Checklist, Data Collection Sheets, and more.

4. **Professional Development Options**: A description of how to earn continuing education credits for professional development.

5. **Future of AFIRM**: Learn more about the future of AFIRM.

Suggested citation:
The AFIRM modules facilitate learning of an evidence-based practice through four lessons and activities, such as case examples, videos, and knowledge checks for family members, school-based personnel, related service providers, and university faculty and students.

1. **EBP Basics:** A description of the evidence-based practice.

2. **Plan:** Steps to guide preparing to use the evidence-based practice.

3. **Use:** Descriptions of each step when using the evidence-based practice.

4. **Monitor:** Steps to guide monitoring the use of the evidence-based practice.
In 2014, the National Professional Development Center on Autism Spectrum Disorders (ASD) identified 27 focused interventions as evidence-based practices based on rigorous criteria (Wong et al., 2014; 2015). These 27 evidence-based practices (EBP) are effective for students and individuals with ASD.

Each EBP below and on the following pages provides a description of the practice along with the domains (highlighted in blue; for example, social, communication, joint attention...), and ages (also highlighted in blue) research has proven the EBP is effective for addressing. This does not mean the practice will not work for domains and ages grayed out, only that there is no research yet showing effectiveness.

Each EBP diagram also provides the average time the module should take to complete. This may be more or less time depending the level of familiarity and previous knowledge of the practice.

**Antecedent-based Interventions**

Derived from applied behavior analysis, antecedent-based interventions (ABI) are used to address both interfering behaviors (e.g. repetitive, disruptive) and on-task behaviors (e.g. engaged or working on specific task/activity). ABI is often used with other evidence-based practices such as functional behavior assessment (FBA), extinction (EXT), and reinforcement (R+).

**Time to complete:**
This module will take 1.5 to 2 hours to complete.
Cognitive Behavioral Intervention

Learners with ASD often struggle with understanding their emotions, thoughts, behaviors, as well as how they are all connected. Cognitive behavioral intervention is used to teach learners with autism strategies to change negative emotions or thoughts from escalating.

**Time to complete:**
This module will take 1.5 to 2 hours to complete.

Differential Reinforcement

The rationale for differential reinforcement is that by (a) reinforcing the nonoccurrence or decreased occurrence of interfering behaviors or (b) reinforcing behaviors that are more functional or incompatible with the interfering behavior, then interfering behaviors will decrease.

**Time to complete:**
This module will take 2.5 to 3 hours to complete.
Discrete Trial Training

Based on the principles of applied behavior analysis (ABA), discrete trial training (DTT) is used to develop a new response to a stimulus. DTT is based upon the principle of breaking down behavior into discrete steps called a “single teaching unit” or learning trials. Trials are repeated several times with the learner receiving reinforcement for responding correctly.

**Time to complete:**
This module will take 2 to 3 hours to complete.

Exercise

In addition to physical fitness, exercise also can be used as an intervention for learners with ASD to increase desired behaviors, such as academic engagement, time on task, correct responding, and task completion. Exercise can decrease inappropriate behaviors, such as aggression, self-injury, self-stimulatory/stereotypic behaviors, and time off task.5-8

**Time to complete:**
This module will take 1.5 to 2 hours to complete.
**Extinction**

Extinction is a behavioral procedure that results in the reduction or elimination of a behavior when an individual stops receiving reinforcement for engaging in that behavior.¹

**Time to complete:**
This module will take 1.5 to 2 hours to complete.

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**Functional Behavior Assessment**

FBA can be used when the intensity, duration, or type of interfering behavior creates safety concerns or impacts a child’s development. An FBA assists the IEP team in understanding the function or purpose of a specific interfering behavior. Data collection is an essential component of FBA.

**Time to complete:**
This module will take 1.5 to 2 hours to complete.
Functional Communication Training

Functional communication training addresses inappropriate, maladaptive, and even aggressive behaviors towards others and themselves, by systematically identifying the function of the behavior and providing a replacement behavior in the form of appropriate communication that will enable the learner to get their needs met in a more acceptable way.

Time to complete:
This module will take 1.5 to 2 hours to complete.

Modeling

Modeling involves the learner observing someone correctly performing a target behavior. The demonstration of the behavior before the learner is expected to demonstrate the behavior serves as a primer for the behavior. In addition, modeling can be used as a prompt to provide extra support to the learner after the direction has been provided and the child is trying to use the behavior.

Time to complete:
This module will take 1.5 to 2 hours to complete.
Naturalistic Interventions

Naturalistic intervention (NI) integrates the principles of applied behavior analysis (ABA) into the natural environment, or into a learner’s everyday routines and activities so that the acquired skills may be more easily generalized.

**Time to complete:**
This module will take 1.5 to 2 hours to complete.

Parent-implemented Interventions

Parents often desire to gain skills and practices that they can implement with their children throughout these routines and activities. Practitioners should use parent-implemented interventions (PII) to train and coach parents to implement EBPs with their children throughout daily routines and activities.

**Time to complete:**
This module will take 1.5 to 2 hours to complete.
Peer-mediated Instruction & Intervention

Peer-mediated instruction and intervention (PMII) can address social concerns by training peers how to initiate and respond to social interactions of learners with ASD. With a foundation in behaviorism and social learning theory, PMII involves systematically teaching peers without disabilities, ways of engaging learners with ASD in positive and meaningful social interactions.

Time to complete:
This module will take 1.5 to 2 hours to complete.

Picture Exchange Communication System ®

PECS is a behavior based intervention that teaches the learner to use visual-graphic symbols to communicate with others. Learners with ASD are taught to give a picture or graphic symbol of a desired item to a communicative partner in exchange for the actual item through a six phase process. Each phase of PECS instruction builds upon the previous phase.

Time to complete:
This module will take 2.5 to 3 hours to complete.
Pivotal Response Training

Facilitating a PRT interaction involves a simultaneous consideration of the learner with ASD’s developmental levels and progression, along with the intentional progression through the antecedent-behavior-consequence (ABC) pattern of behavior that is familiar in other behavioral interventions.

**Time to complete:**
This module will take 2 to 3 hours to complete.

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Prompting

Prompting includes any help given to a learner that assists the learner in using a specific skill or behavior. Sometimes referred to as an *errorless learning method*, prompting reduces incorrect responding as learners acquire new skills.

**Time to complete:**
This module will take 2.5 to 3 hours to complete.
Reinforcement

Reinforcement describes the relationship between learner behavior and a consequence that follows the behavior. The relationship between the learner’s use of a skill/behavior and the consequence is only reinforcing if the consequence increases the likelihood the learner performs the skill or behavior.

**Time to complete:**
This module will take 2.5 to 3 hours to complete.

Response Interruption & Redirection

The rationale for RIR is that by introducing a prompt, comment, or other distractor when an interfering behavior is occurring, then occurrences of interfering behaviors will decrease.

**Time to complete:**
This module will take 1.5 to 2 hours to complete.
**Scripting**
The use of scripts as an intervention capitalizes upon the strengths of learners with ASD by providing specific, appropriate models for language and/or social behavior in a structured way that will support the learner in engaging in a communicative interaction with a partner.

**Time to complete:**
This module will take 1.5 to 2 hours to complete.

**Self-management**
Self-management systematizes self-regulation strategies for learners with ASD to learn the rules and norms needed to act appropriately in a given situation. Self-regulation strategies can include self-monitoring, self-reflection, and adapting to a given context.

**Time to complete:**
This module will take 1.5 to 2 hours to complete.
Social Narratives

Social narratives describe social situations for learners with ASD by providing relevant cues, explanation of the feelings and thoughts of others in the social situation, and descriptions of appropriate behavior expectations. Typically, social narratives are individualized based upon the needs of the learner, short, and written from the perspective of the learner.

Time to complete:
This module will take 1.5 to 2 hours to complete.

Social Skills Training

Social skills training (SST) refers to any adult-directed instruction in which social skills are targeted for improvement. SST typically occurs in either a group or individual format, and may also include facilitated practice in classroom settings.

Time to complete:
This module will take 1.5 to 2 hours to complete.
Structured Play Groups

Structured play groups (SPG) are interventions facilitated by adults used to teach a broad range of skills and behaviors during playtime with a small group of children who meet consistently in a defined space.

**Time to complete:**
This module will take 1.5 to 2 hours to complete.

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Task Analysis

Task analysis (TA) can be used to help break down and teach these chained behaviors.\(^1\) Chained behaviors are behaviors or skills which consist of multiple steps such as tying shoes, grocery shopping, writing a paper, or cooking. Once chained behaviors are broken into smaller steps, team members work with the learner to systematically teach the individual steps.

**Time to complete:**
This module will take 1.5 to 2 hours to complete.
Technology-aided Instruction & Intervention

TAII refers to instruction or intervention in which technology is the central feature supporting the acquisition of a goal for the learner. Technology is defined as “any electronic item, equipment, application, or virtual network that is used intentionally to increase/maintain, and/or improve daily living, work/productivity, and recreation/leisure capabilities of children with autism spectrum disorders.”¹

**Time to complete:**
This module will take 2 to 2.5 hours to complete.

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Time Delay

Prompt dependence limits a learner’s ability to generalize skills to new situations, activities, and individuals. Adults and team members can prevent prompt dependence by using time delay. Time delay is a response prompting procedure that systematically fades prompts during instructional activities.²

**Time to complete:**
This module will take 1.5 to 2 hours to complete.
Video Modeling

Video modeling (VM) is an intervention that uses technology (video recording and display equipment) to provide a visual model of a targeted behavior or skill. Thus, it is often referred to as an assistive technology method.

**Time to complete:**
This module will take 1.5 to 2 hours to complete.

Visual Supports

Visual supports are concrete cues that are paired with, or used in place of, a verbal cue to provide the learner with information about a routine, activity, behavioral expectation, or skill demonstration. Visual supports might include: pictures, written words, objects, arrangement of the environment, visual boundaries, schedules, maps, labels, organization systems, timelines, and scripts.

**Time to complete:**
This module will take 1.5 to 2 hours to complete.
---AFIRM Resources---

Each of the AFIRM modules comes with free resources to aid in the planning, using, and monitoring of the evidence-based practice, along with additional resources, tip sheets, and guides. These resources are located within each module and on the Resources tab after logging into AFIRM.

1. **Evidence-base**: The *EBP Evidence-base* details the NPDC criteria for inclusion as an evidence-based practice and the specific studies that meet the criteria for this practice.

2. **Step-by-Step Guide**: Use the *EBP Step-by-Step Practice Guide* as an outline for how to plan for, use, and monitor EBP. Each step includes a brief description as a helpful reminder while learning the process.
3. **Implementation Checklist:** Use the *EBP Implementation Checklist* to determine if the practice is being implemented as intended.

4. **Planning Worksheets & EBP Diagrams:** Use the planning worksheets & EBP diagrams to guide understanding of the EBP and prepare for using the EBP.
5. **Data Collection Sheets:** Use the data collection sheets as a method to collect and analyze data to determine if progress is being made for a learner with ASD.

6. **Tip Sheet for Professionals:** Use the *EBP Tip Sheet for Professionals* as a supplemental resource to help provide basic information about the practice to professionals working with the learner with ASD.
7. **Parent Guide**: Use the *EBP Parent Guide* to help parents or family members understand basic information about the practice being used with their child.

8. **Additional Resources**: Use the *Additional Resources* to learn more about the practice.
9. **CEC Standards**: A list of CEC Standards that apply specifically to EBP.

10. **EBP Brief Packet**: A quick overview of salient features of the practice, including what it is, who it can be used with, what skills it has been used with, and settings for instruction. And all the above-mentioned resources for the EBP, including the numerical references utilized for the module.
---Earning Professional Development---

If the **Certificate Track** is selected *before* beginning a module, AFIRM users can earn a free **Certificate of Completion** that can be used to meet professional development needs. These free certificates are located on the **My Account** page of AFIRM (located at the top right of the screen after login).

However, in some cases the free **Certificate of Completion** is not enough to meet an agency’s or organization’s professional development requirements. The AFIRM user will need to check with their agency or organization for this information, as AFIRM does not maintain a registry of this information.

If this is the case, AFIRM offers CEUs from the Friday Center at the University of North Carolina at Chapel Hill for $35 per module. Links to registering for and providing payment for CEUs become active on the AFIRM user’s **My Account** page *after* they have earned the free **Certificate of Completion**.

For BCBAs only, AFIRM is an approved provider of Type-II CEs for $35 per module. Links to registering for and providing payment for Type-II CEs become active on the AFIRM user’s **My Account** page *after* they have earned the free **Certificate of Completion**.

**Note:** Post-assessments expired after a year. Please review the module and re-take the post-assessment to become eligible for CEUs or Type-2 CEs.

For more information visit:

[www.afirm.fpg.unc.edu](http://www.afirm.fpg.unc.edu)
---Future of AFIRM---

Although funding has ended, with continued support for the National Clearinghouse on Autism Evidence and Practice, AFIRM hopes to continue to add new modules as new evidence-based practices emerge, as well as update current modules.

The National Clearinghouse on Autism Evidence and Practice (NCAEP) is conducting a systematic review of current intervention literature intended to help individuals with autism. NCAEP will examine the impact of behavioral, clinical, and educational practices and service models used with individuals on the autism spectrum from birth through age 21. Identifying evidence-based practices provides guidance and support for these individuals and their families, educators and practitioners in schools, advocacy groups, and policy makers, as well as health-care providers and insurance companies. NCAEP builds on an evidence review completed in 2014 by the National Professional Development Center on Autism Spectrum Disorder (NPDC).

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http://ncaep.fpg.unc.edu/