Evidence Based Practice Training:

Augmentative and Alternative Communication (AAC)

Adapted from Steinbrenner, J.R. et.al. (2020). Augmentative and Alternative Communication Evidence-Based Practices for Children, Youth, and Young Adults with Autism Spectrum Disorder Report, National Clearinghouse on Autism Evidence and Practice (NCAEP)
https://ncaep.fpg.unc.edu/

What is CAPTAIN

The California Autism Professional Training And Information Network (CAPTAIN) is an interagency network developed to support the understanding and use of evidence based practices (EBPs) for individuals with Autism across the state of California.

What is CAPTAIN

Marin County SELPA in partnership with CAPTAIN, are members of the Statewide System of Support

as the Special Education Content Lead for Autism.

This project is funded by the California Department of Education and the California Collaborative for Educational Excellence.

Levels of Professional Development to Reach Implementation

This is a Workshop/Training and is designed to increase your KNOWLEDGE of the topic. Implementation supports to assist you with use of this EBP will be outlined following the TRAINING/WORKSHOP

Before We Begin…

Please complete the **Pre-Training Survey** sent to your email

Learning Objectives

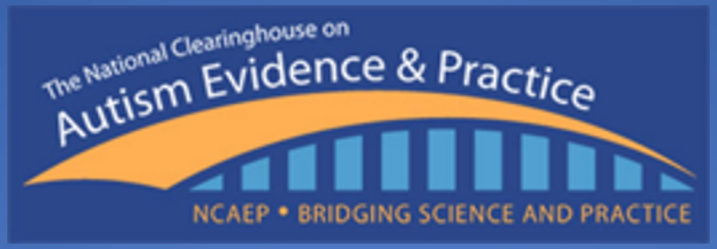
Define Evidence-Based Practices for Autism

Define Augmentative and Alternative Communication (The Basics)

Describe how to develop a plan for using AAC

Describe how to successfully implement AAC in your instructional setting.

What are Evidence Based Practices?



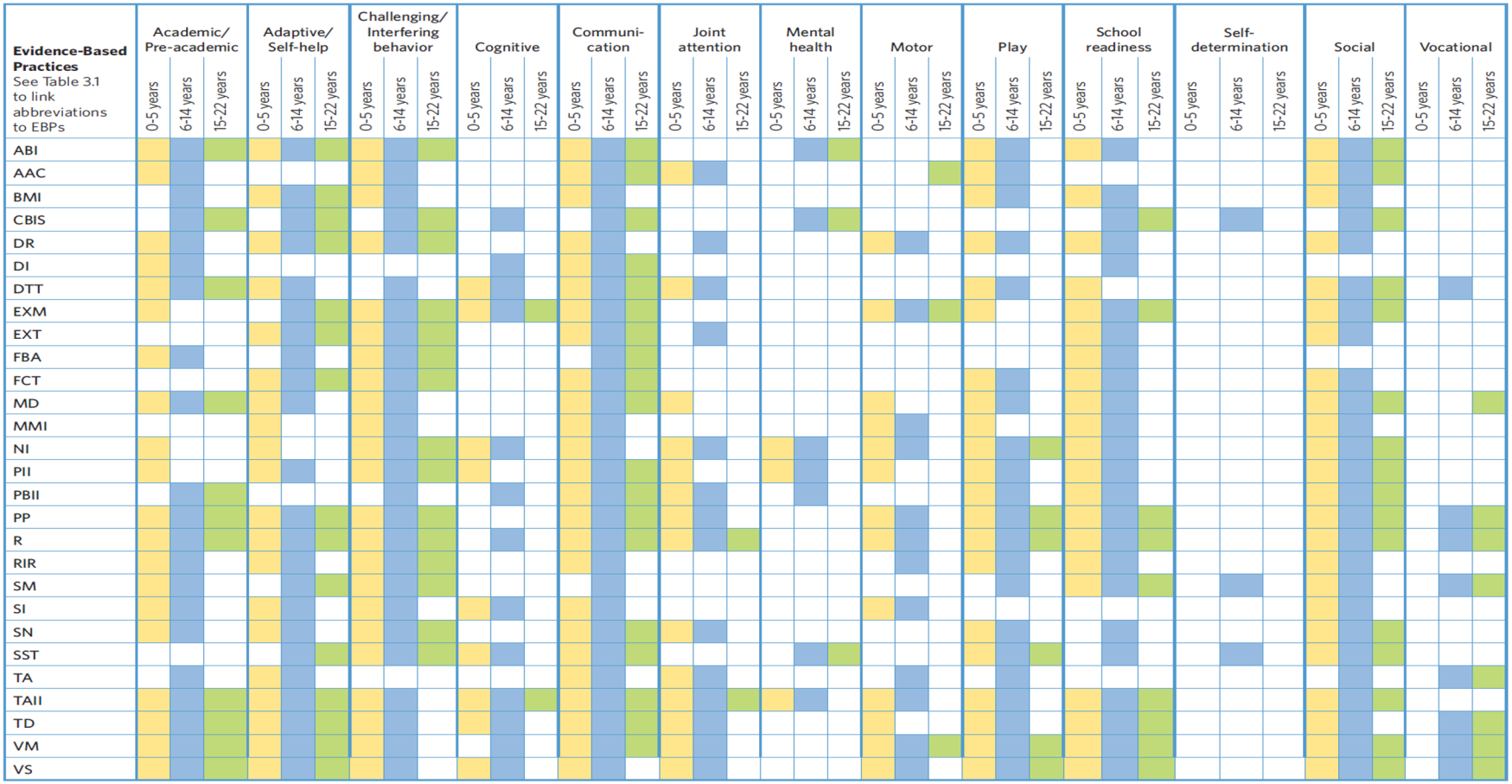
NCAEP definition of an EBP:

"Focused intervention practices that have evidence of efficacy in promoting positive outcomes for learners with ASD."

Steinbrenner, J. R., Hume, K., Odom, S. L., Morin, K. L., Nowell, S. W., Tomaszewski, B., Szendrey, S., McIntyre, N. S., Yücesoy-Özkan, S., & Savage, M. N. (2020). Evidence-based practices for children, youth, and young adults with Autism. The University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Institute, National Clearinghouse on Autism Evidence and Practice Review Team.

Evidence Based Practice Matrix (28 EBPs)

Table 3.7 Matrix of evidence-based practices, outcomes, and age categories



Evidence-Based Practices (See Table 3.1 to link abbreviations to EBPs)	Academic/ Pre-academic			Adaptive/ Self-help			Challenging/ Interfering behavior			Cognitive			Communi-cation			Joint attention			Mental health			Motor			Play			School readiness			Self-determination			Social			Vocational		
	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years	0-5 years	6-14 years	15-22 years
ABI																																				
AAC																																				
BMI																																				
CBIS																																				
DR																																				
DI																																				
DTT																																				
EXM																																				
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TAII																																				
TD																																				
VM																																				
VS																																				

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California Autism Professional Training and Information Network

AVAILABLE ON CAPTAIN WEBSITE

www.captain.ca.gov

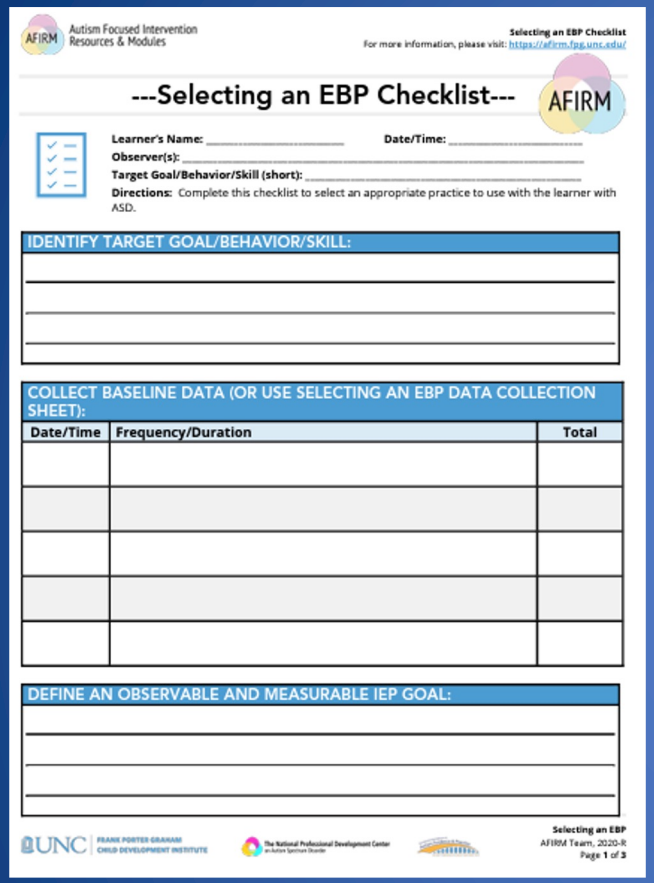
SELPA Content Lead
EVIDENCE Based Practices —Autism—
Marin County

Selecting EBPs

Before beginning a new practice with a learner, it is important to follow four planning steps

1. Identify the behavior
2. Collect baseline data on the behavior
3. Establish an observable and measurable goal
4. Choose an EBP
   - Consider the child and family characteristics
   - Consider the teacher and team characteristics
   - Consider other available resources

Selecting an EBP Checklist



Autism Focused Intervention Resources & Modules

Selecting an EBP Checklist
For more information, please visit: https://afirm.fpg.unc.edu/

---Selecting an EBP Checklist---

Learner's Name: _____ Date/Time: _____
Observer(s): _____
Target Goal/Behavior/Skill (short): _____
Directions: Complete this checklist to select an appropriate practice to use with the learner with ASD.

IDENTIFY TARGET GOAL/BEHAVIOR/SKILL:

COLLECT BASELINE DATA (OR USE SELECTING AN EBP DATA COLLECTION SHEET):

Date/Time	Frequency/Duration	Total

DEFINE AN OBSERVABLE AND MEASURABLE IEP GOAL:

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Selecting an EBP
AFIRM Team, 2020-R
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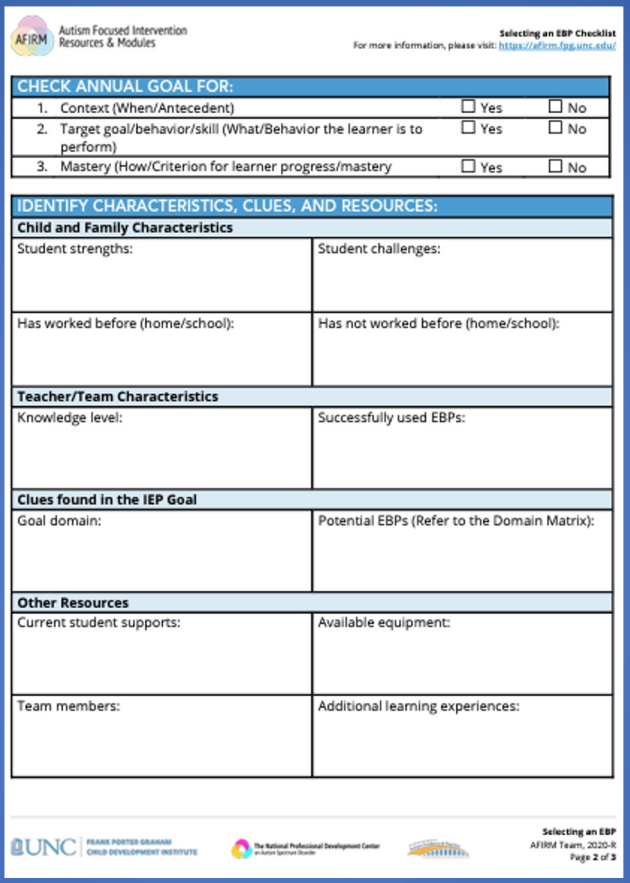

Autism Focused Intervention Resources & Modules

Selecting an EBP Checklist
For more information, please visit: https://afirm.fpg.unc.edu/

CHECK ANNUAL GOAL FOR:

1. Context (When/Antecedent)	☐ Yes	☐ No
2. Target goal/behavior/skill (What/Behavior the learner is to perform)	☐ Yes	☐ No
3. Mastery (How/Criterion for learner progress/mastery	☐ Yes	☐ No

IDENTIFY CHARACTERISTICS, CLUES, AND RESOURCES:

Child and Family Characteristics

Student strengths:	Student challenges:
Has worked before (home/school):	Has not worked before (home/school):

Teacher/Team Characteristics

Knowledge level:	Successfully used EBPs:

Clues found in the IEP Goal

Goal domain:	Potential EBPs (Refer to the Domain Matrix):

Other Resources

Current student supports:	Available equipment:
Team members:	Additional learning experiences:

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Selecting an EBP
AFIRM Team, 2020-R
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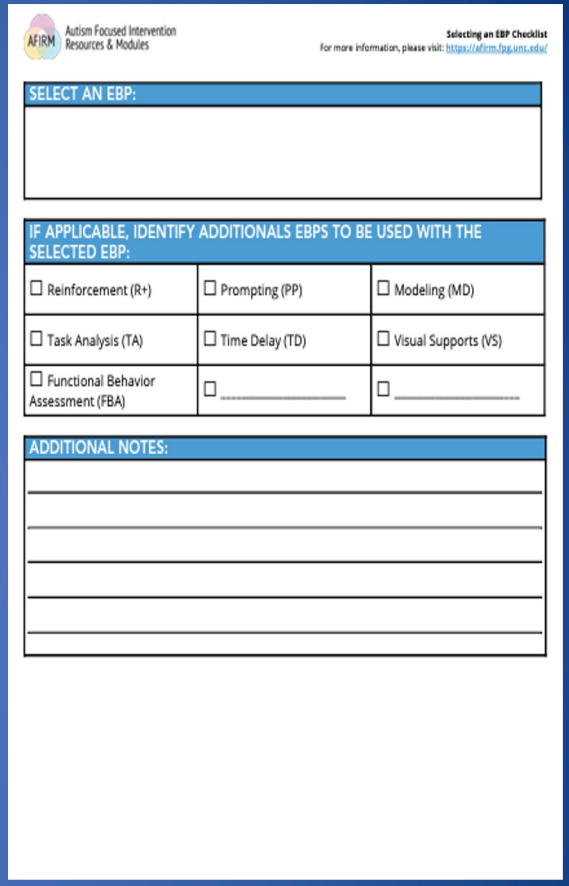

Autism Focused Intervention Resources & Modules

Selecting an EBP Checklist
For more information, please visit: https://afirm.fpg.unc.edu/

SELECT AN EBP:

IF APPLICABLE, IDENTIFY ADDITIONALS EBPS TO BE USED WITH THE SELECTED EBP:

☐ Reinforcement (R+)	☐ Prompting (PP)	☐ Modeling (MD)
☐ Task Analysis (TA)	☐ Time Delay (TD)	☐ Visual Supports (VS)
☐ Functional Behavior Assessment (FBA)	☐ _____	☐ _____

ADDITIONAL NOTES:

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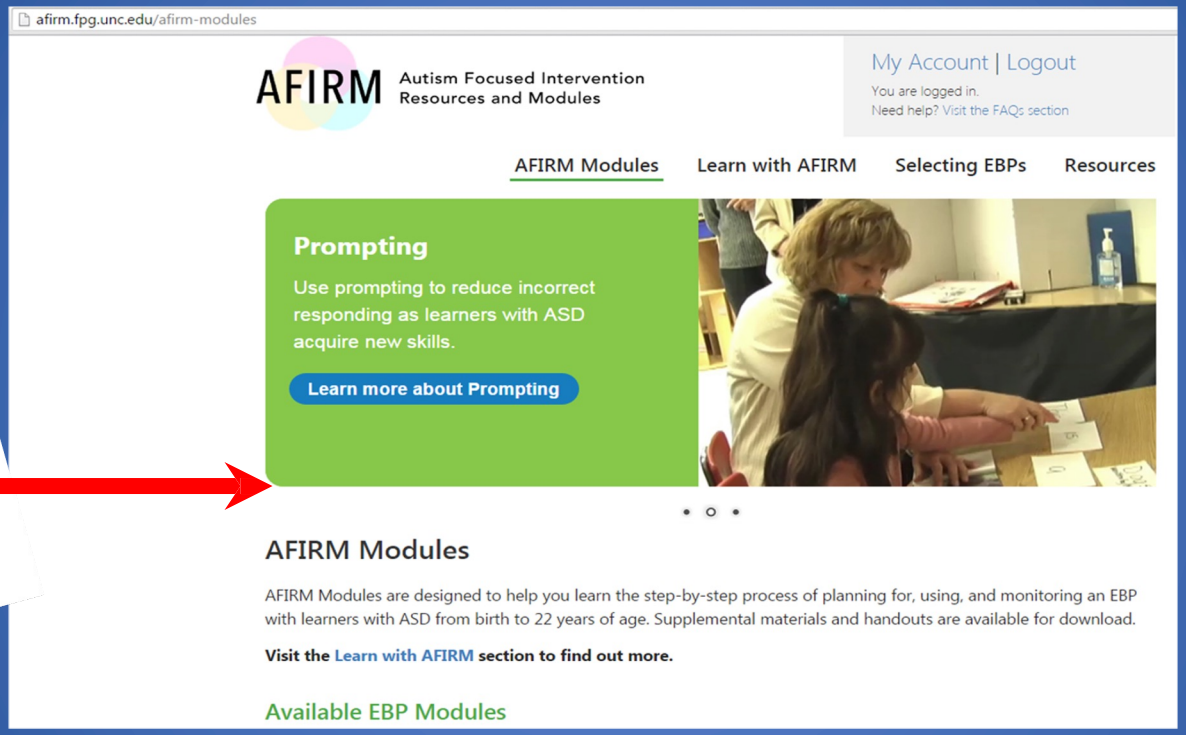
High Quality Training:
Autism Focused Intervention Resources and Modules (AFIRM)



THE NATIONAL PROFESSIONAL DEVELOPMENT CENTER ON AUTISM SPECTRUM DISORDERS

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http://afirm.fpg.unc.edu/afirm-modules

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AFIRM MODULES

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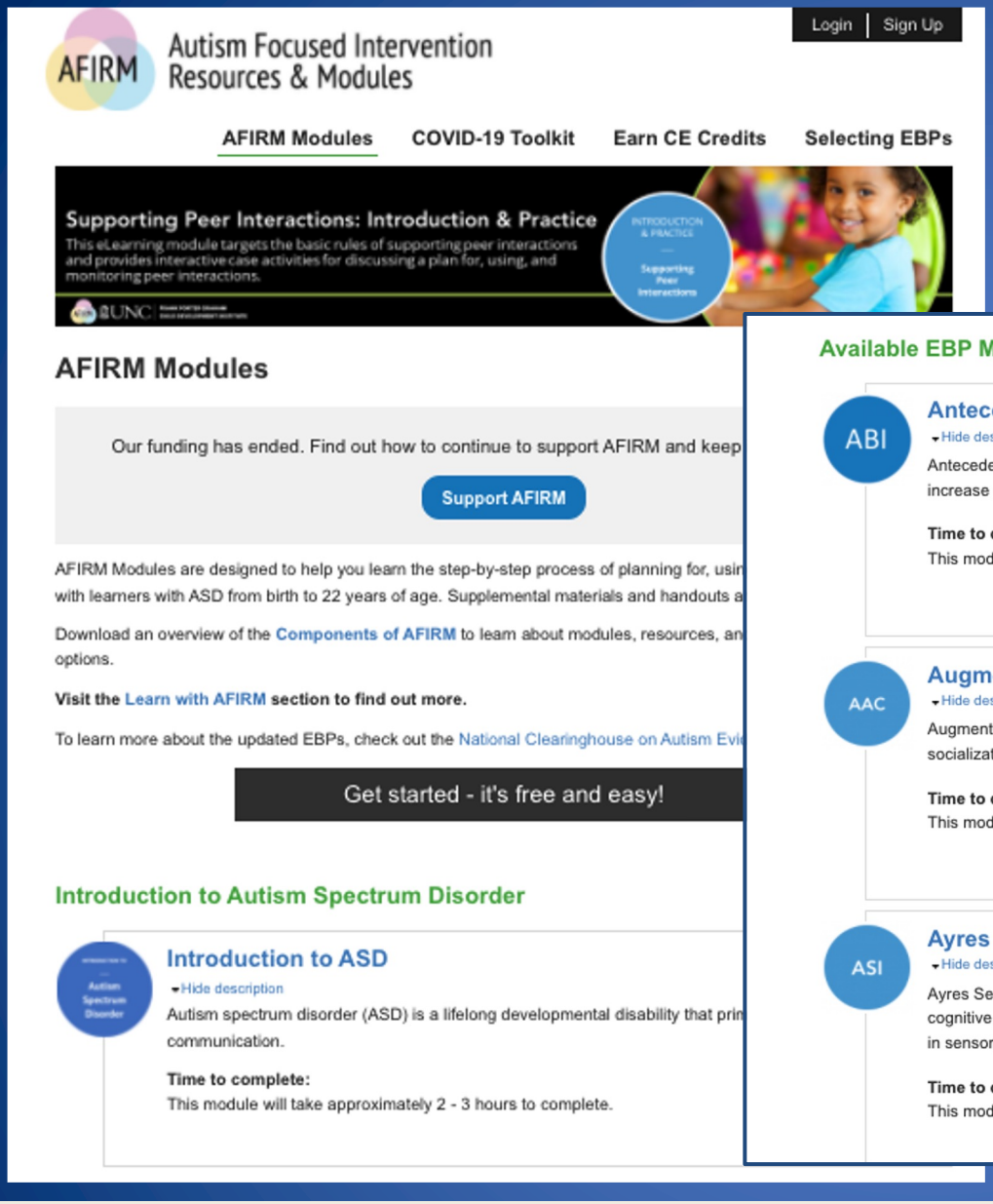

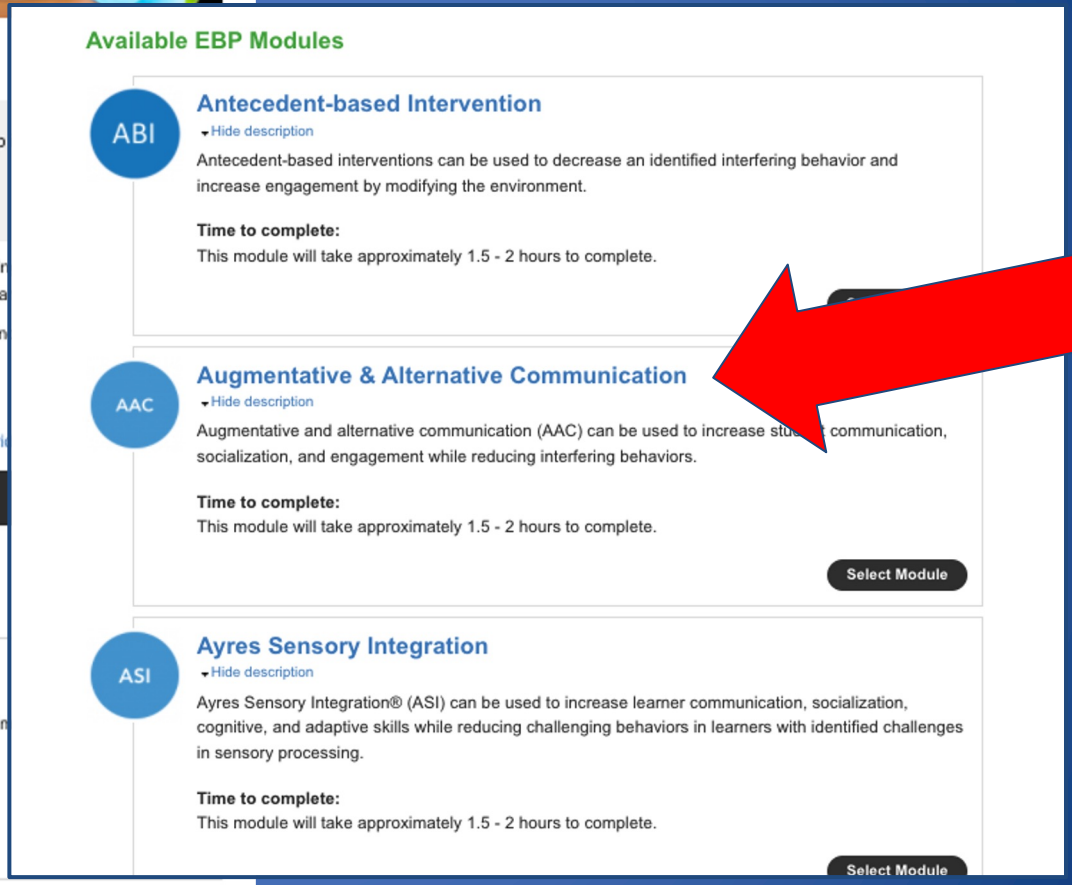

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Evidence (Age and Domains)

Outcome Areas		Age Ranges					
		0-2 Toddlers	3-5 Preschoolers	6-11 Elementary School	12-14 Middle School	15-18 High School	19-22 Young Adults
	Communication	✓	✓	✓	✓	✓	
	Social	✓	✓	✓		✓	
	Joint attention	✓	✓	✓			
	Play	✓	✓	✓			
	Cognitive						
	School readiness						
	Academic/ Pre-academic		✓	✓			
	Adaptive/ self-help						
	Challenging/ Interfering behavior		✓	✓			
	Vocational						
	Motor					✓	
	Mental health						
	Self-determination						

Communication

- is a critical foundational skill
- impacts independence, academics and social success
- is a fundamental human skill
- is a right every student has
- ensures that all students have an effective way to communicate their needs
- reduces interfering behavior in the classroom and at home

Expressive Communication

Expressive Communication is defined as "one's ability to communicate thoughts and feelings through words, gestures, or facial expressions."

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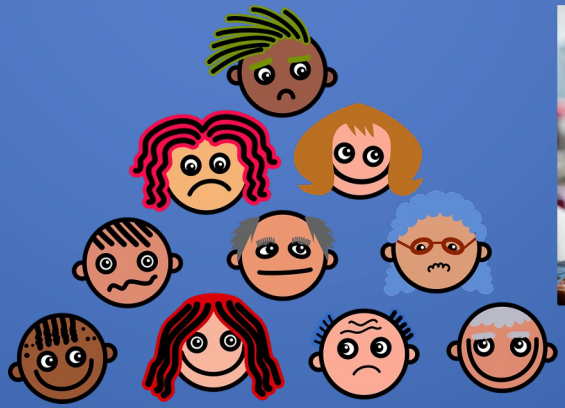

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SELPA Content Lead EVIDENCE Based Practices —Autism— Marin County SELPA

What is Augmentative and Alternative Communication (AAC) ?

Interventions that use a system of communication that is not verbal/vocal including aided and unaided communication systems.

Unaided Communication Systems

Do not use any materials or technology

Sign Language
Gestures
Body Language/Facial Expressions
Proximity
Behavior

Aided Communication

Uses materials or technology

Low tech

exchanging objects

pictures

pointing to letters

High Tech

speech generating devices

applications on other devices (phones, tablets)

Aided

Speech Generating Devices

Facial Expressions

Eye Gaze

Sign Language

Software Applications with a device

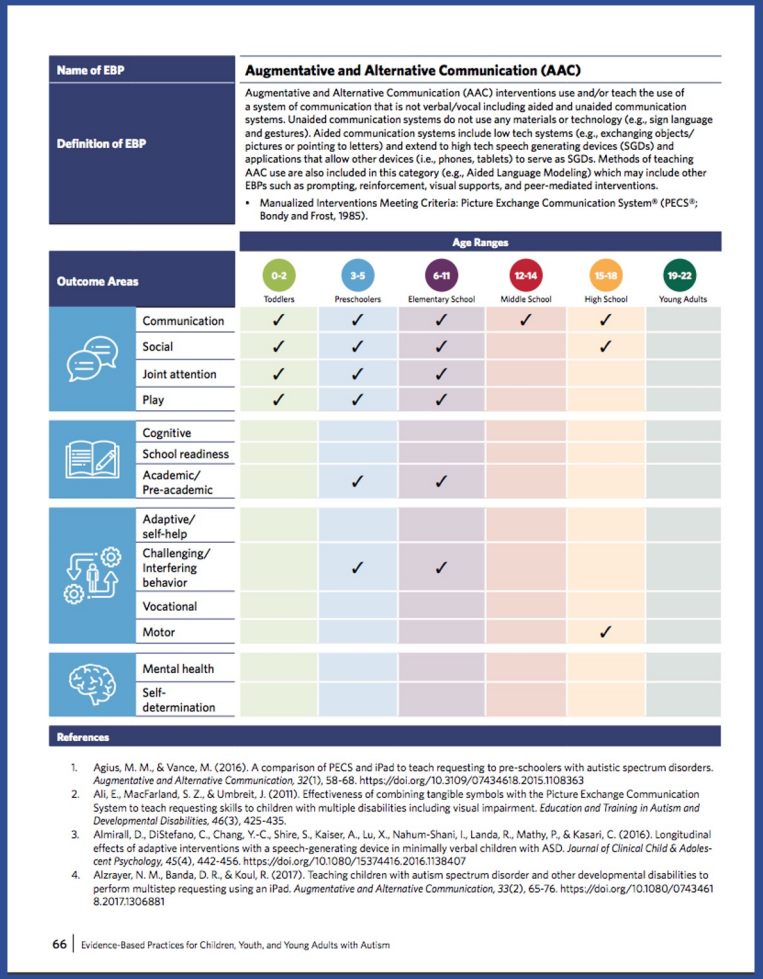
Core Boards

Gestures

Picture/Object Exchange systems

Unaided

INTERVENTION FACT SHEET
NCAEP Report April 2020



Name of EBP

Augmentative and Alternative Communication (AAC)

Definition of EBP

Augmentative and Alternative Communication (AAC) interventions use and/or teach the use of a system of communication that is not verbal/vocal including aided and unaided communication systems. Unaided communication systems do not use any materials or technology (e.g., sign language and gestures). Aided communication systems include low tech systems (e.g., exchanging objects/pictures or pointing to letters) and extend to high tech speech generating devices (SGDs) and applications that allow other devices (i.e., phones, tablets) to serve as SGDs. Methods of teaching AAC use are also included in this category (e.g., Aided Language Modeling) which may include other EBPs such as prompting, reinforcement, visual supports, and peer-mediated interventions.

- Manualized Interventions Meeting Criteria: Picture Exchange Communication System® (PECS®; Bondy and Frost, 1985).

Outcome Areas		Age Ranges					
		0-2 Toddlers	3-5 Preschoolers	6-11 Elementary School	12-14 Middle School	15-18 High School	19-22 Young Adults
	Communication	✓	✓	✓	✓	✓	
	Social	✓	✓	✓		✓	
	Joint attention	✓	✓	✓			
	Play	✓	✓	✓			
	Cognitive						
	School readiness						
	Academic/ Pre-academic		✓	✓			
	Adaptive/ self-help						
	Challenging/ Interfering behavior		✓	✓			
	Vocational						
	Motor					✓	
	Mental health						
	Self-determination						

References

1. Agius, M. M., & Vance, M. (2016). A comparison of PECS and iPad to teach requesting to pre-schoolers with autistic spectrum disorders. *Augmentative and Alternative Communication, 32*(1), 58-68. https://doi.org/10.3109/07434618.2015.1108363
2. Ali, E., MacFarland, S. Z., & Umbreit, J. (2011). Effectiveness of combining tangible symbols with the Picture Exchange Communication System to teach requesting skills to children with multiple disabilities including visual impairment. *Education and Training in Autism and Developmental Disabilities, 46*(3), 425-435.
3. Almirall, D., DiStefano, C., Chang, Y.-C., Shire, S., Kaiser, A., Lu, X., Nahum-Shani, I., Landa, R., Mathy, P., & Kasari, C. (2016). Longitudinal effects of adaptive interventions with a speech-generating device in minimally verbal children with ASD. *Journal of Clinical Child & Adolescent Psychology, 45*(4), 442-456. https://doi.org/10.1080/15374416.2016.1138407
4. Alzrayer, N. M., Banda, D. R., & Koul, R. (2017). Teaching children with autism spectrum disorder and other developmental disabilities to perform multistep requesting using an iPad. *Augmentative and Alternative Communication, 33*(2), 65-76. https://doi.org/10.1080/07434618.2017.1306881

- Definition of the intervention
- Age Range
- Outcome Areas
- References (specific articles that provide the evidence for the efficacy of the practice)

Evidence (Age and Domains)

Outcome Areas		Age Ranges					
		0-2 Toddlers	3-5 Preschoolers	6-11 Elementary School	12-14 Middle School	15-18 High School	19-22 Young Adults
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	Social	✓	✓	✓		✓	
	Joint attention	✓	✓	✓			
	Play	✓	✓	✓			
	Cognitive						
	School readiness						
	Academic/ Pre-academic		✓	✓			
	Adaptive/ self-help						
	Challenging/ Interfering behavior		✓	✓			
	Vocational						
	Motor					✓	
	Mental health						
	Self-determination						

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Marin County SELPA

Who is a candidate for AAC?

- Anyone who is not able to communicate effectively with speech alone
- Anyone who is partially able to communicate with speech but may not be understood by others
- Anyone who has adequate speech but needs supports for writing or extending conversations

What goals can be addressed through AAC?

Increase Communication (examples)

- Requesting (desired objects/activities)
- Protesting (undesired objects/activities/action by someone else)
- Commenting (about activities and events of interest)

What goals can be addressed through AAC? (continued)

Increase Social Participation and Engagement (examples)

- Greetings teachers and peers
- Requesting a turn
- Taking a turn
- Asking for materials from a peer

What goals can be addressed through AAC? (continued)

Increase engagement in academic/pre-academic tasks (examples)

- Requesting more of an activity
- Answering a question
- Asking for clarification
- Participating in classroom routines

What goals can be addressed through AAC?

Increase Play Skills (examples)

- Using symbolic play skills

Increase Vocabulary acquisition (examples)

- Applying core academic vocabulary during class activities
- Learning new concepts/vocabulary during book reading activities
- Practicing social vocabulary in settings like recess group work and lunch

Reduce Interfering Behaviors (examples)

- Express feelings without interfering behaviors
- Requesting a break

How does AAC help learners?

- Uses Visual Supports
- Reduces social pressure
- Serves as a communication model for children who are developing speech
- Motivates learners to communicate
- Increases social interaction with peers

AFIRM Autism Focused Intervention Resources & Modules

Where can AAC Training Be Implemented?

HOME

cooking
chores
bathroom routines
bedroom routines
homework routines

SCHOOL

playground
cafeteria
classroom centers
bathroom
bus
passing period

COMMUNITY

stores
public bathrooms
work environment
public transportation
restaurants
library

Who can Implement AAC Training ?

This practice can be used by a variety of professionals, including teachers, special educators, therapists, paraprofessionals, and early interventionists in educational and community-based environments. Parents and family members also can use this practice in the home.

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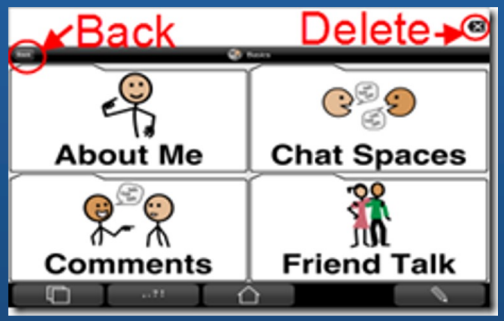

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Methods of Teaching AAC

Aided Language Modeling

Using other EBPs

Peer-Based Instruction and Intervention

Reinforcement

Prompting

Visual Supports

Modeling

Picture Exchange Communication System ®

The National Clearinghouse on Autism Evidence & Practice
NCAEP • BRIDGING SCIENCE AND PRACTICE

The 2020 NCAEP report reclassified **PECS®** as a Manualized Intervention Meeting Criteria (MIMCs)

A MIMC is operationally defined as interventions that a) are manualized, b) have unique features that create an intervention identity, and c) share common features with other practices grouped within the superordinate EBP classification

Instead of **PECS®** remaining a stand alone EBP, it was grouped into the AAC EBP as a MIMC

PECS® is an AAC system developed in 1985 by Andy Bondy, PhD, and Lori Frost, MS, CCC-SLP.

What is PECS®?

https://pecsusa.com/pecs

"The **PECS®** teaching protocol is based on B.F. Skinner's book, Verbal Behavior, and broad spectrum applied behavior analysis.

Specific prompting and reinforcement strategies that will lead to independent communication are used throughout the protocol.

The protocol also includes systematic error correction procedures to promote learning if an error occurs. Verbal prompts are not used, thus building immediate initiation and avoiding prompt dependency.

PECS® consists of six phases and begins by teaching an individual to give a single picture of a desired item or action to a "communicative partner" who immediately honors the exchange as a request. The system goes on to teach discrimination of pictures and how to put them together in sentences. In the more advanced phases, individuals are taught to use modifiers, answer questions and comment.

The primary goal of **PECS®**is to teach functional communication.

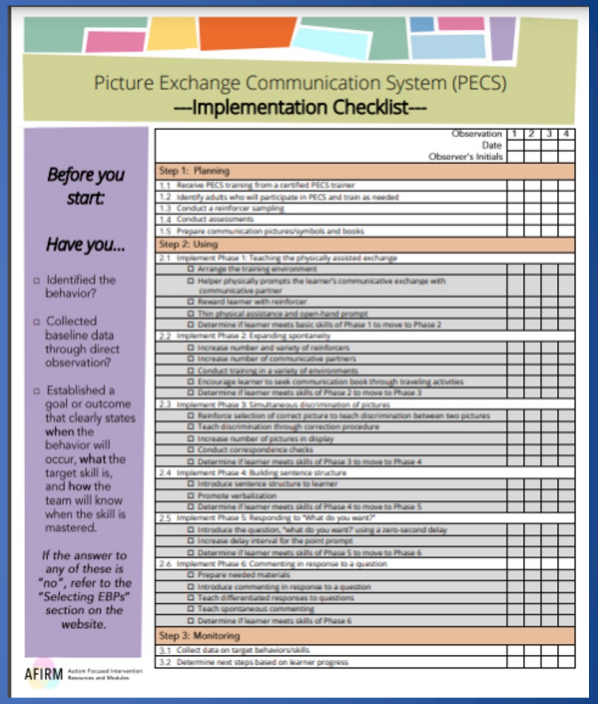
Research has shown that some learners using **PECS®** also develop speech. Others may transition to a speech generating device (SGD)."

PICTURE EXCHANGE COMMUNICATION SYSTEM ®

How to learn more about PECS®

- **Get trained!**
  The AFIRM Implementation Checklist states as the first step: *"Receive PECS training from a certified PECS trainer"*
  https://pecsusa.com/pecs/

- **Review the AFIRM online training module:**
  https://afirm.fpg.unc.edu/picture-exchange-communication-system


Picture Exchange Communication System (PECS)
—Implementation Checklist—

Before you start:

Have you...

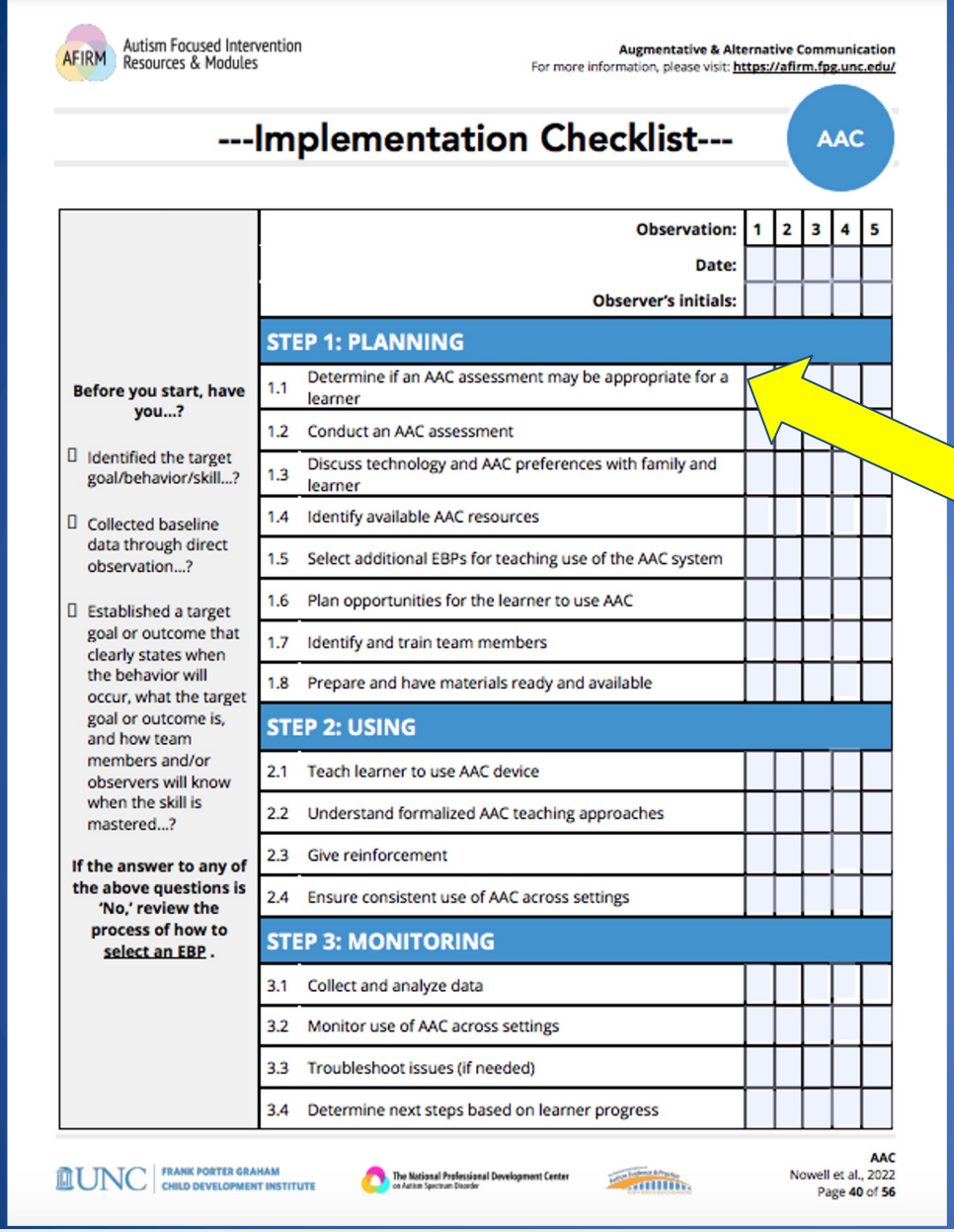
- ☐ Identified the behavior?
- ☐ Collected baseline data through direct observation?
- ☐ Established a goal or outcome that clearly states when the behavior will occur, what the target skill is, and how the team will know when the skill is mastered.

If the answer to any of these is "no", refer to the "Selecting EBPs" section on the website.

AFIRM Autism Focused Intervention Resources and Modules

	Observation	1	2	3	4
	Date				
	Observer's Initials				
Step 1: Planning					
1.1 Receive PECS training from a certified PECS trainer					
1.2 Identify adults who will participate in PECS and train as needed					
1.3 Conduct a reinforcer sampling					
1.4 Conduct assessments					
1.5 Prepare communication pictures/symbols and books					
Step 2: Using					
2.1 Implement Phase 1: Teaching the physically assisted exchange					
☐ Arrange the training environment					
☐ Helper physically prompts the learner's communicative exchange with communicative partner					
☐ Reward learner with reinforcer					
☐ Thin physical assistance and open-hand prompt					
☐ Determine if learner meets basic skills of Phase 1 to move to Phase 2					
2.2 Implement Phase 2: Expanding spontaneity					
☐ Increase number and variety of reinforcers					
☐ Increase number of communicative partners					
☐ Conduct training in a variety of environments					
☐ Encourage learner to seek communication book through traveling activities					
☐ Determine if learner meets skills of Phase 2 to move to Phase 3					
2.3 Implement Phase 3: Simultaneous discrimination of pictures					
☐ Reinforce selection of correct picture to teach discrimination between two pictures					
☐ Teach discrimination through correction procedure					
☐ Increase number of pictures in display					
☐ Conduct correspondence checks					
☐ Determine if learner meets skills of Phase 3 to move to Phase 4					
2.4 Implement Phase 4: Building sentence structure					
☐ Introduce sentence structure to learner					
☐ Promote verbalization					
☐ Determine if learner meets skills of Phase 4 to move to Phase 5					
2.5 Implement Phase 5: Responding to "What do you want?"					
☐ Introduce the question, "what do you want?" using a zero-second delay					
☐ Increase delay interval for the point prompt					
☐ Determine if learner meets skills of Phase 5 to move to Phase 6					
2.6 Implement Phase 6: Commenting in response to a question					
☐ Prepare needed materials					
☐ Introduce commenting in response to a question					
☐ Teach differentiated responses to questions					
☐ Teach spontaneous commenting					
☐ Determine if learner meets skills of Phase 6					
Step 3: Monitoring					
3.1 Collect data on target behaviors/skills					
3.2 Determine next steps based on learner progress					

AAC Implementation Checklist



Autism Focused Intervention Resources & Modules (AFIRM)

Augmentative & Alternative Communication
For more information, please visit: https://afirm.fpg.unc.edu/

---Implementation Checklist---

AAC

Before you start, have you...?

- ☐ Identified the target goal/behavior/skill...?
- ☐ Collected baseline data through direct observation...?
- ☐ Established a target goal or outcome that clearly states when the behavior will occur, what the target goal or outcome is, and how team members and/or observers will know when the skill is mastered...?

If the answer to any of the above questions is 'No,' review the process of how to select an EBP .

		Observation:	1	2	3	4	5
		Date:					
		Observer's initials:					
STEP 1: PLANNING							
1.1	Determine if an AAC assessment may be appropriate for a learner						
1.2	Conduct an AAC assessment						
1.3	Discuss technology and AAC preferences with family and learner						
1.4	Identify available AAC resources						
1.5	Select additional EBPs for teaching use of the AAC system						
1.6	Plan opportunities for the learner to use AAC						
1.7	Identify and train team members						
1.8	Prepare and have materials ready and available						
STEP 2: USING							
2.1	Teach learner to use AAC device						
2.2	Understand formalized AAC teaching approaches						
2.3	Give reinforcement						
2.4	Ensure consistent use of AAC across settings						
STEP 3: MONITORING							
3.1	Collect and analyze data						
3.2	Monitor use of AAC across settings						
3.3	Troubleshoot issues (if needed)						
3.4	Determine next steps based on learner progress						

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AAC
Nowell et al., 2022
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Planning AAC

- Determine if an AAC Assessment is appropriate for the learner
- Conduct an AAC Assessment
- Discuss technology and AAC preferences with family and learner
- Identify available AAC resources
- Select additional EBPs for teaching use of the AAC system
- Plan opportunities for the learner to use AAC (tools such as an activity Matrix, activity specific core boards)
- Identify and train team members
- Prepare and have materials ready and available

Determine if an AAC Assessment Might Be Appropriate for a Learner

IEP TEAM IDENTIFIES A POTENTIAL NEED

Conduct an AAC assessment

---Assessment Checklist Worksheet--

AAC

Learner's Name: _____ **Date/Time:** _____
Observer(s): _____
Target Goal/Behavior/Skill (short): _____
Directions: Complete this worksheet to determine if an assessment for AAC is needed

AAC SPECIFIC PLANNING:		
1. Is the learner making little progress toward communication goals during academic or social parts of the school day?	☐ Yes	☐ No
2. Is the learner showing frustration or other negative behaviors when there are communication demands placed on them during the school day?	☐ Yes	☐ No
3. Do the learner's teachers, family, and/or peers have a hard time understanding the learner's current communication or spoken language?	☐ Yes	☐ No
4. Does the learner seem interested in participating in activities or communicating with others but lack the language to do so effectively?	☐ Yes	☐ No
5. Does the learner show little engagement in daily activities or seem withdrawn?	☐ Yes	☐ No
6. Has the learner's family mentioned communication concerns or the desire for the student to have more effective communication?	☐ Yes	☐ No
7. Does the learner seem to have matured beyond their current AAC system?	☐ Yes	☐ No

If you answered yes to any of these questions, then the learner may need a more thorough assessment with your school speech-language pathologist or assistive technology specialist.

ANECDOTAL NOTES:

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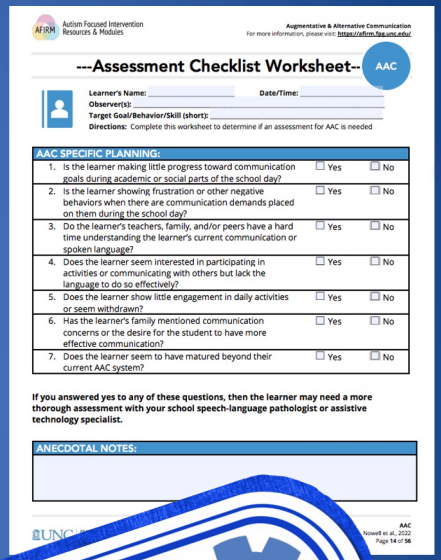
Break out Room Activity

In your break out room have one person think of a student they are currently working with.

Using the Assessment Checklist Worksheet, go around the room and have each person in your group ask a question on this sheet in order to familiarize your group with the student.

Ask probing questions if needed to be able to come to a conclusion at the bottom of the page

Repeat with another group member answering the questions about their identified student



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---Assessment Checklist Worksheet-- AAC

Learner's Name: Date/Time:

Observer(s):

Target Goal/Behavior/Skill (short):

Directions: Complete this worksheet to determine if an assessment for AAC is needed

AAC SPECIFIC PLANNING:		
1. Is the learner making little progress toward communication goals during academic or social parts of the school day?	☐ Yes	☐ No
2. Is the learner showing frustration or other negative behaviors when there are communication demands placed on them during the school day?	☐ Yes	☐ No
3. Do the learner's teachers, family, and/or peers have a hard time understanding the learner's current communication or spoken language?	☐ Yes	☐ No
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5. Does the learner show little engagement in daily activities or seem withdrawn?	☐ Yes	☐ No
6. Has the learner's family mentioned communication concerns or the desire for the student to have more effective communication?	☐ Yes	☐ No
7. Does the learner seem to have matured beyond their current AAC system?	☐ Yes	☐ No

If you answered yes to any of these questions, then the learner may need a more thorough assessment with your school speech-language pathologist or assistive technology specialist.

ANECDOTAL NOTES:

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Planning for AAC:

Assessing the Need

Determine if an AAC assessment may be appropriate for a learner.

IEP TEAM IDENTIFIES A POTENTIAL NEED

TRIGGERS AN ASSESSMENT PLAN

SLP WITH THE SUPPORT OF THE TEAM COMPLETES AN AAC NEEDS ASSESSMENT

Conduct an AAC assessment

Conducting an AAC Assessment
Who makes up the TEAM?

AAC Training should only be implemented after a formal AAC Assessment has been completed by a team of qualified professionals.

- SLP
- General Education/Special Education Teacher(s)
- Family
- OT, PT, VI, OI specialists (as needed)

The speech-language pathologist should be the primary voice in helping the team to complete the assessment, and to develop a plan and supervise the implementation of AAC.

Discuss technology and AAC Preferences with Family and Learner

Discuss technology and AAC preferences with family and learner

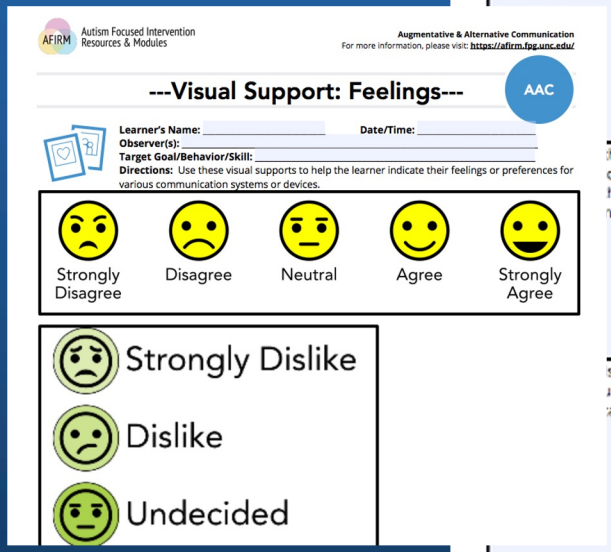
Tools to use to gather the information:

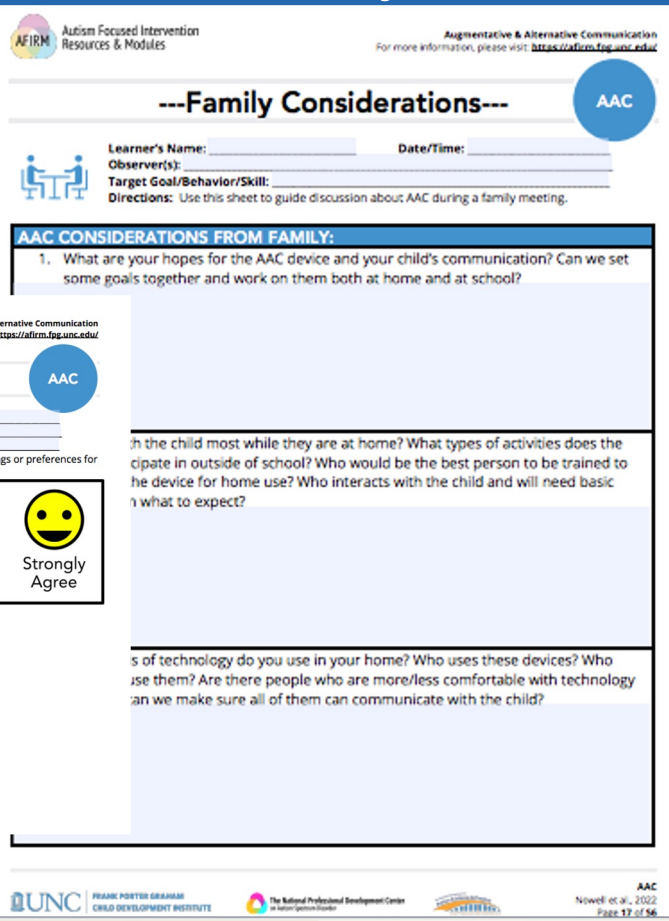
Surveys

Interviews

Observations

Probes





Identify Available AAC Resources

Funding Resources to Consider if IEP Identifies a need for high tech equipment/device:

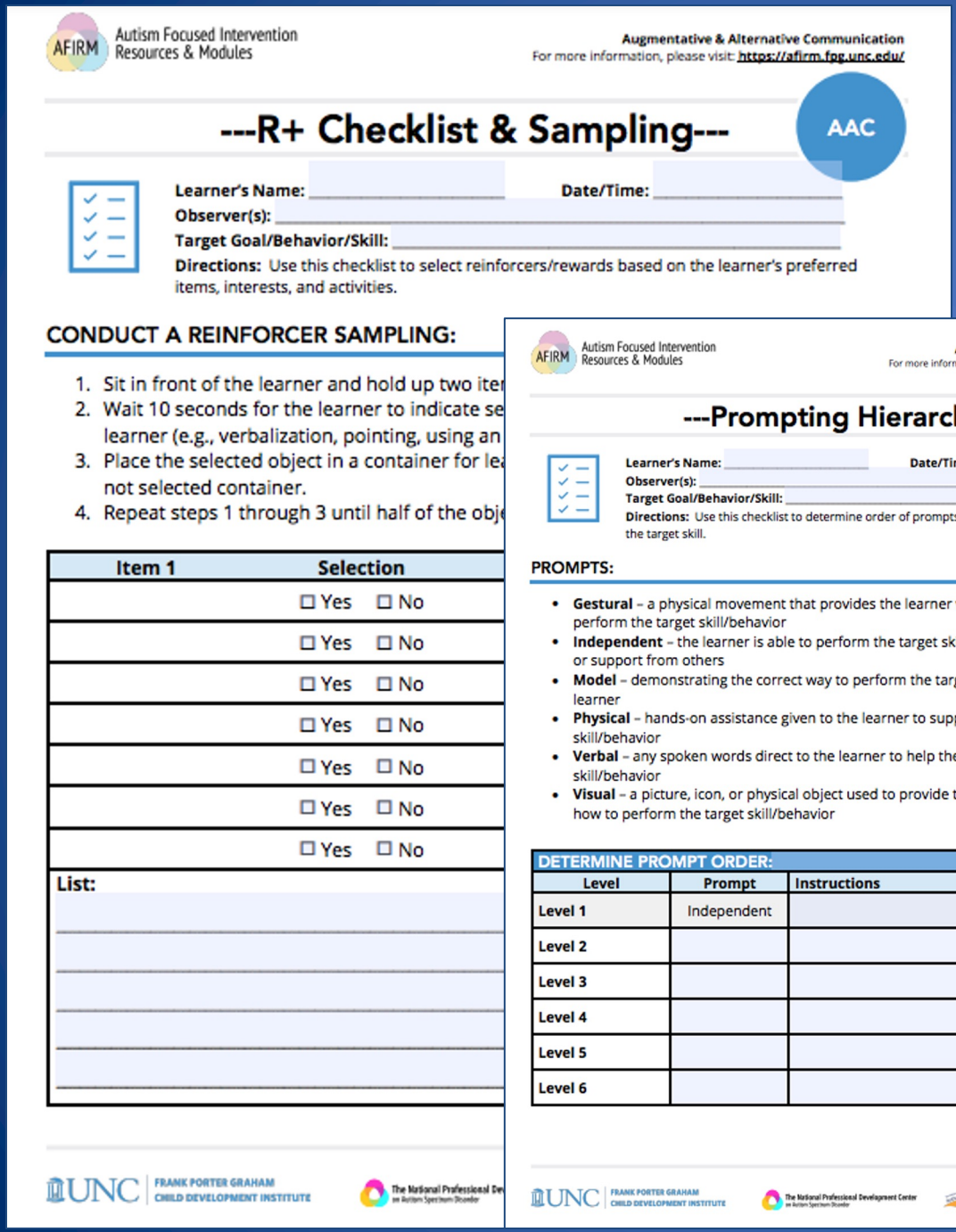
- School District Resources
- Low Incidence Funding if the student qualifies (Severe Orthopedic Impairment, Visual Impairment, Deaf-Hard of Hearing, Deaf-Blind, or any combination of these)

Select Additional EBPs for Teaching Use of the AAC System

Using other EBPs

Peer-Based Instruction and Intervention
Reinforcement
Prompting/Time Delay
Visual Supports
Modeling

EBP	Description
Reinforcement	Plan how to reward/motivate AAC use in all contexts by creating a reinforcement schedule.
Prompting	Establish a hierarchy of least-to-most restrictive prompts to use the AAC system.
Visual Supports, Peer-Based Instruction, Video Modeling, Time Delay, Modeling	These other EBPs also support teaching of AAC please refer to AFIRM module for more details.



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---R+ Checklist & Sampling---

AAC

Learner's Name: _____ **Date/Time:** _____
Observer(s): _____
Target Goal/Behavior/Skill: _____
Directions: Use this checklist to select reinforcers/rewards based on the learner's preferred items, interests, and activities.

CONDUCT A REINFORCER SAMPLING:

1. Sit in front of the learner and hold up two iter
2. Wait 10 seconds for the learner to indicate se
   learner (e.g., verbalization, pointing, using an
3. Place the selected object in a container for le
   not selected container.
4. Repeat steps 1 through 3 until half of the obj

Item 1	Selection
	☐ Yes ☐ No
	☐ Yes ☐ No
	☐ Yes ☐ No
	☐ Yes ☐ No
	☐ Yes ☐ No
	☐ Yes ☐ No
	☐ Yes ☐ No

List:

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---Prompting Hierarchy---

AAC

Learner's Name: _____ **Date/Time:** _____
Observer(s): _____
Target Goal/Behavior/Skill: _____
Directions: Use this checklist to determine order of prompts based on the learner's needs and the target skill.

PROMPTS:

- **Gestural** – a physical movement that provides the learner with information about how to perform the target skill/behavior
- **Independent** – the learner is able to perform the target skill/behavior without assistance or support from others
- **Model** – demonstrating the correct way to perform the target skill/behavior for the learner
- **Physical** – hands-on assistance given to the learner to support them to perform the target skill/behavior
- **Verbal** – any spoken words direct to the learner to help them perform the target skill/behavior
- **Visual** – a picture, icon, or physical object used to provide the learner with information on how to perform the target skill/behavior

DETERMINE PROMPT ORDER:		
Level	**Prompt**	**Instructions**
Level 1	Independent	
Level 2		
Level 3		
Level 4		
Level 5		
Level 6		

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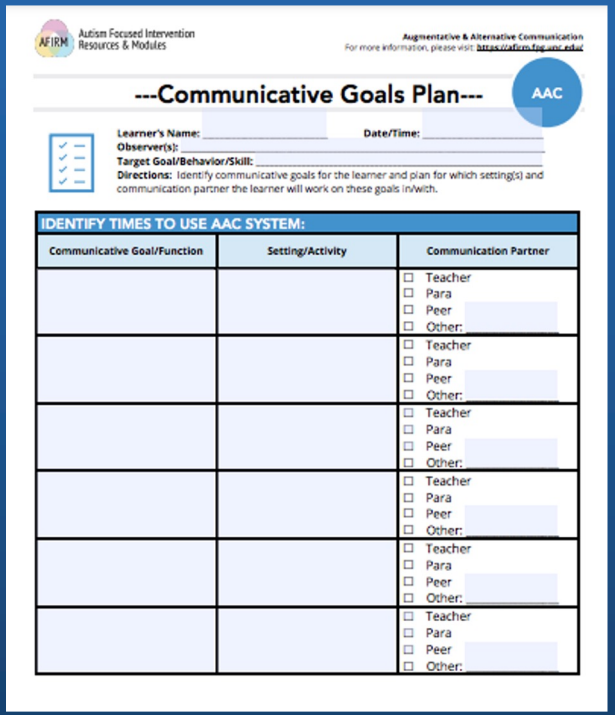
Select additional EBPs for teaching use of the AAC system

Plan Opportunities for the Learner to Use AAC

Consider Goals the IEP team has developed for use with a student and determine when these goals can be addressed within naturally occurring routines and activities. Link Goals to Communicative Function.

Tools:
Communicative Goals Plan
Activity Matrix
Activity Specific Core Boards



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---Communicative Goals Plan---

AAC

Learner's Name: _____ Date/Time: _____

Observer(s): _____

Target Goal/Behavior/Skill: _____

Directions: Identify communicative goals for the learner and plan for which setting(s) and communication partner the learner will work on these goals in/with.

IDENTIFY TIMES TO USE AAC SYSTEM:		
Communicative Goal/Function	Setting/Activity	Communication Partner
		☐ Teacher ☐ Para ☐ Peer ☐ Other:
		☐ Teacher ☐ Para ☐ Peer ☐ Other:
		☐ Teacher ☐ Para ☐ Peer ☐ Other:
		☐ Teacher ☐ Para ☐ Peer ☐ Other:
		☐ Teacher ☐ Para ☐ Peer ☐ Other:
		☐ Teacher ☐ Para ☐ Peer ☐ Other:

Plan Opportunities for the Learner to Use AAC: Communicative Functions

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Identify and Train Team Members

Discuss technology and AAC preferences with family and learner

Recommendation: Speech-Language Therapist and AAC Specialist take the lead on training other team members

1. Include regular communication partners: Classroom teacher, parents, paraprofessional and the learner.

1. Later: train peers

Identify and Train Team Members

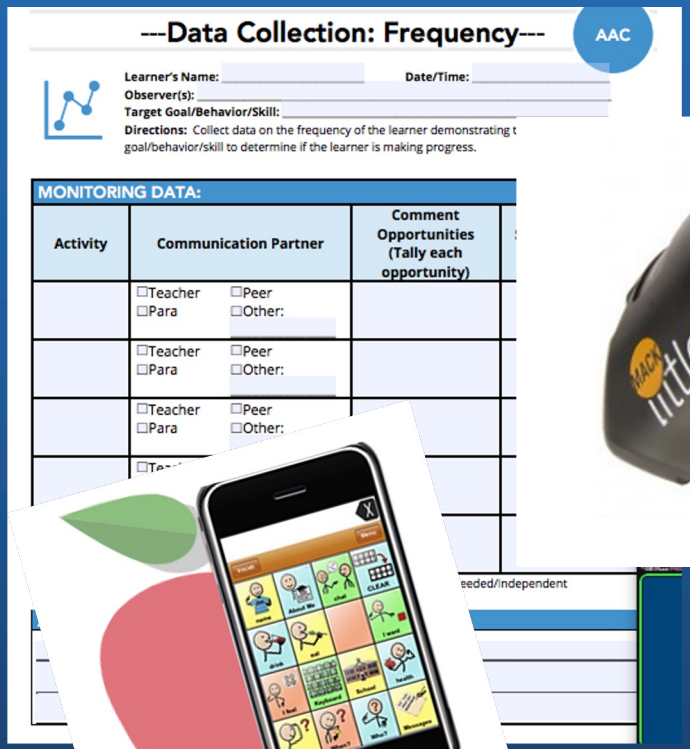
American - Speech, Language and Hearing Association (ASHA) has developed guidelines for training team members in the use of AAC.

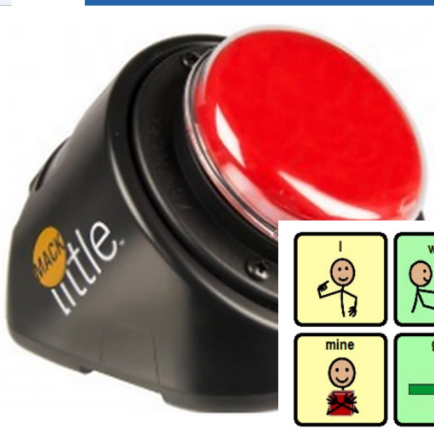
It is recommended that any SLP or AAC Specialist who is involved in training others refer to these guidelines for details.

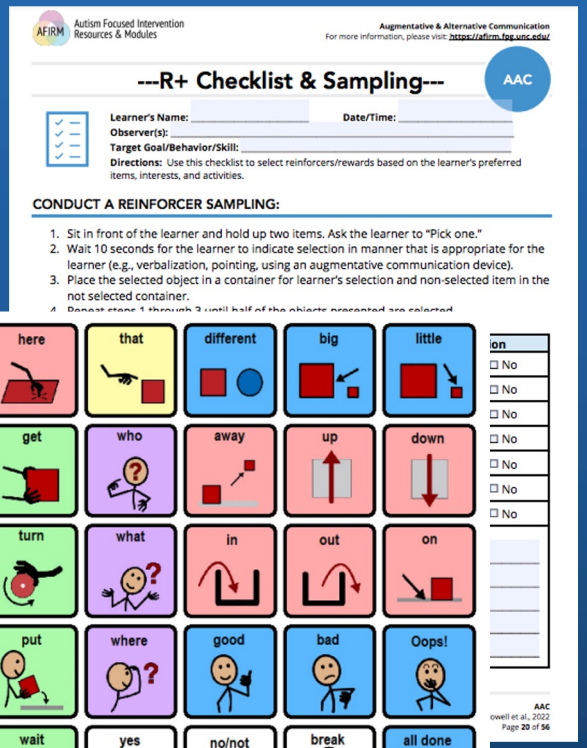
(Reference the AFIRM module or www.asha.org)

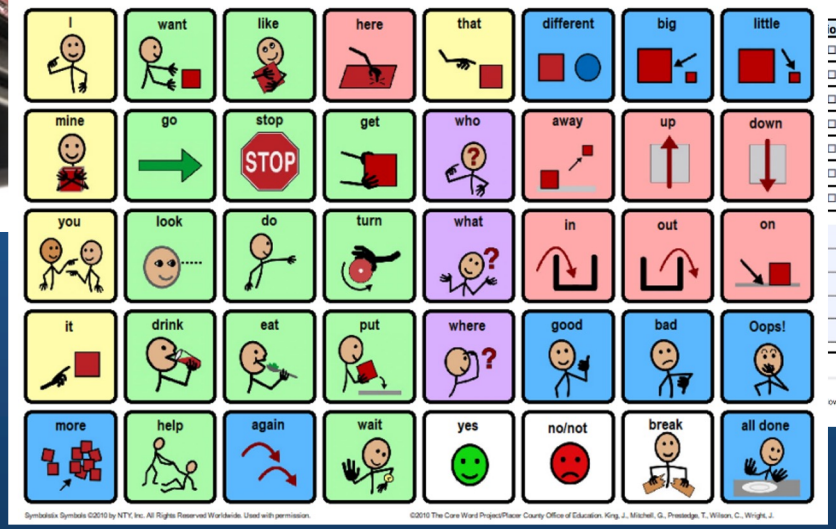
Prepare And Have Materials Ready and Available

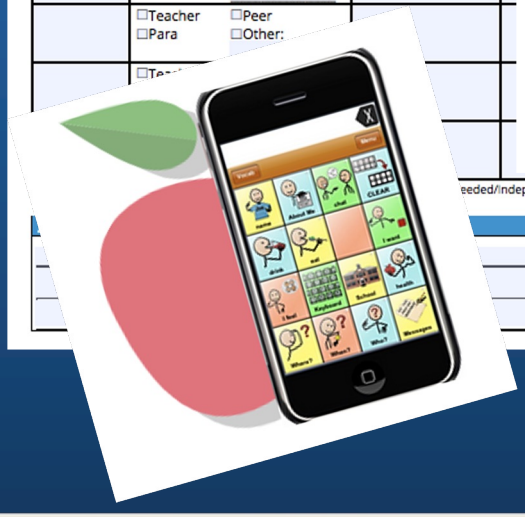
Discuss technology & AAC preferences with family & learner











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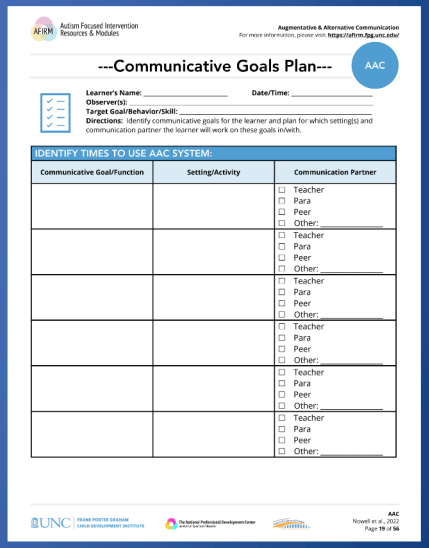
Break out Room Activity With Feedback

Using three goals your group develops for a specific child who uses AAC, complete the Communicative Goals Plan worksheet.

Remember the same goal can be indicated on multiple lines of your planning sheet.



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---Communicative Goals Plan---

AAC

Learner's Name: _____ Date/Time: _____

Observer(s): _____

Target Goal/Behavior/Skill: _____

Directions: Identify communicative goals for the learner and plan for which setting(s) and communication partner the learner will work on these goals in/with.

IDENTIFY TIMES TO USE AAC SYSTEM:

Communicative Goal/Function	Setting/Activity	Communication Partner
		☐ Teacher ☐ Para ☐ Peer ☐ Other: _____
		☐ Teacher ☐ Para ☐ Peer ☐ Other: _____
		☐ Teacher ☐ Para ☐ Peer ☐ Other: _____
		☐ Teacher ☐ Para ☐ Peer ☐ Other: _____
		☐ Teacher ☐ Para ☐ Peer ☐ Other: _____
		☐ Teacher ☐ Para ☐ Peer ☐ Other: _____

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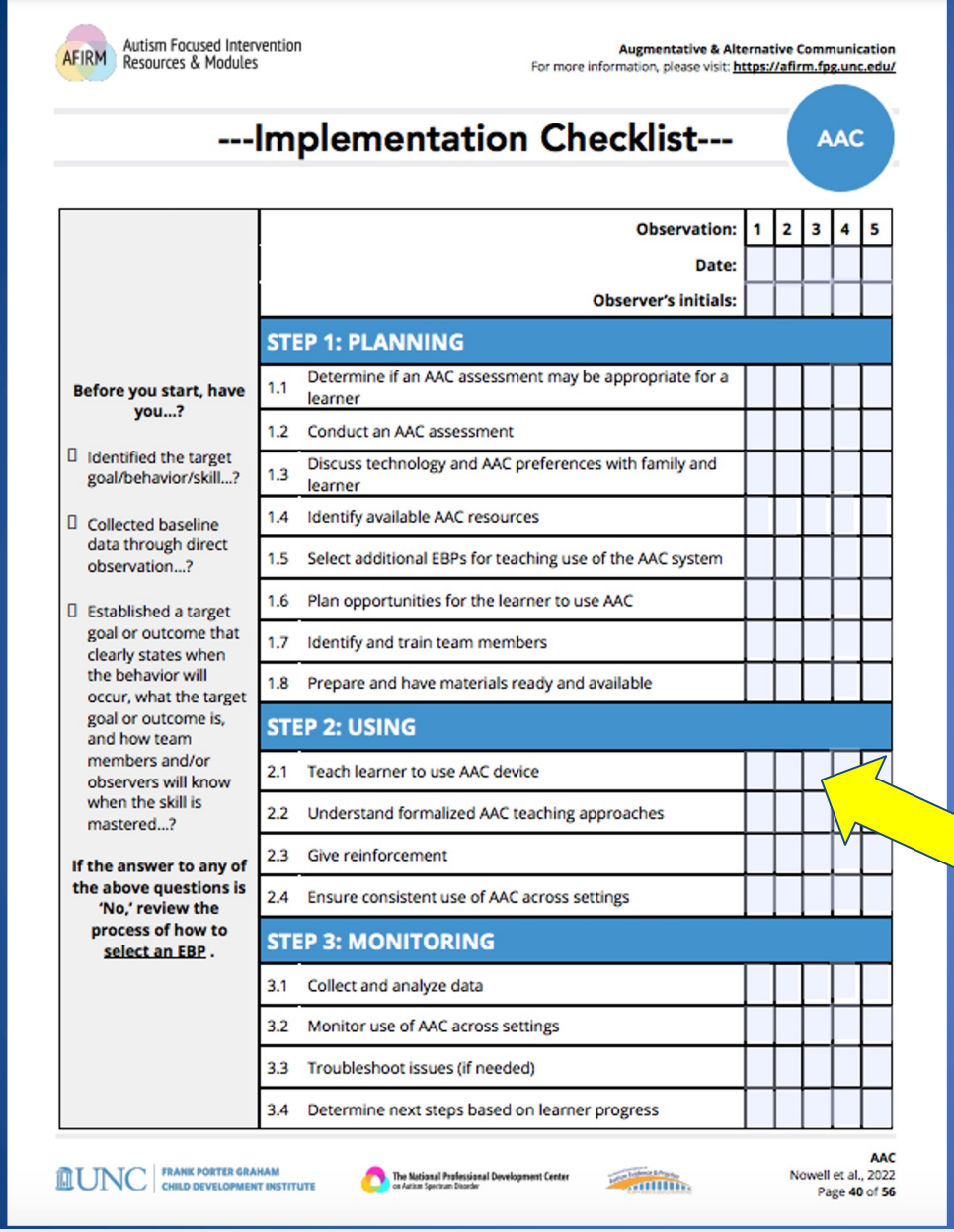
AAC Implementation Checklist



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---Implementation Checklist---

AAC

Before you start, have you...?

- ☐ Identified the target goal/behavior/skill...?
- ☐ Collected baseline data through direct observation...?
- ☐ Established a target goal or outcome that clearly states when the behavior will occur, what the target goal or outcome is, and how team members and/or observers will know when the skill is mastered...?

If the answer to any of the above questions is 'No,' review the process of how to select an EBP .

	Observation:	1	2	3	4	5
	Date:					
	Observer's initials:					
STEP 1: PLANNING						
1.1	Determine if an AAC assessment may be appropriate for a learner					
1.2	Conduct an AAC assessment					
1.3	Discuss technology and AAC preferences with family and learner					
1.4	Identify available AAC resources					
1.5	Select additional EBPs for teaching use of the AAC system					
1.6	Plan opportunities for the learner to use AAC					
1.7	Identify and train team members					
1.8	Prepare and have materials ready and available					
STEP 2: USING						
2.1	Teach learner to use AAC device					
2.2	Understand formalized AAC teaching approaches					
2.3	Give reinforcement					
2.4	Ensure consistent use of AAC across settings					
STEP 3: MONITORING						
3.1	Collect and analyze data					
3.2	Monitor use of AAC across settings					
3.3	Troubleshoot issues (if needed)					
3.4	Determine next steps based on learner progress					

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Using/Implementing AAC

- Teach learner to use AAC device
- Implement formalized AAC teaching approaches
- Give reinforcement
- Ensure consistent use of AAC across settings

Teach Learner To Use AAC Device

SLPs or AT specialists will lead the team in determining strategies to support the learner.

Recall the following from your planning steps:

- the settings
- communication partners
- communication goals by function
- EBPs

Understand Formalized AAC Teaching Approaches

Teaching Approaches:

- Aided Language Modeling
- Core Vocabulary Approach
- EBPs: Prompting, Modeling, Reinforcement, Functional Communication Training
- Total Communication

Teaching Approaches might be specific to a system:

DISCLAIMER:

Note that some of these approaches are not recognized evidence-based practices but are commonly used and may have some research evidence to support them. The descriptions are only to familiarize you with common AAC teaching approaches, they are ***not endorsed*** by AFIRM or the American Speech-Language Hearing Association (ASHA).

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Give Reinforcement

Some communication goals, utilizing AAC have more natural reinforcers (example: making choices or requesting objects that are highly desired).

When the task is not as intrinsically motivating during less preferred activities, you may need to be provide a more formal or structured schedule of reinforcement utilizing external motivators.

Give Reinforcement

Basic Elements of Reinforcement:

- Be consistent with the schedule of Reinforcement.
- Remind the student of what they are working for before starting the task.
- Provide reinforcement immediately after completing the target skill.
- Vary the types of reinforcement used (high fives, social praise, stickers, access to preferred activity or object)

Refer to AFIRM Reinforcement Module, AFIRM for Paras

Ensure Consistent Use of AAC Across Settings

Suggestions for School:

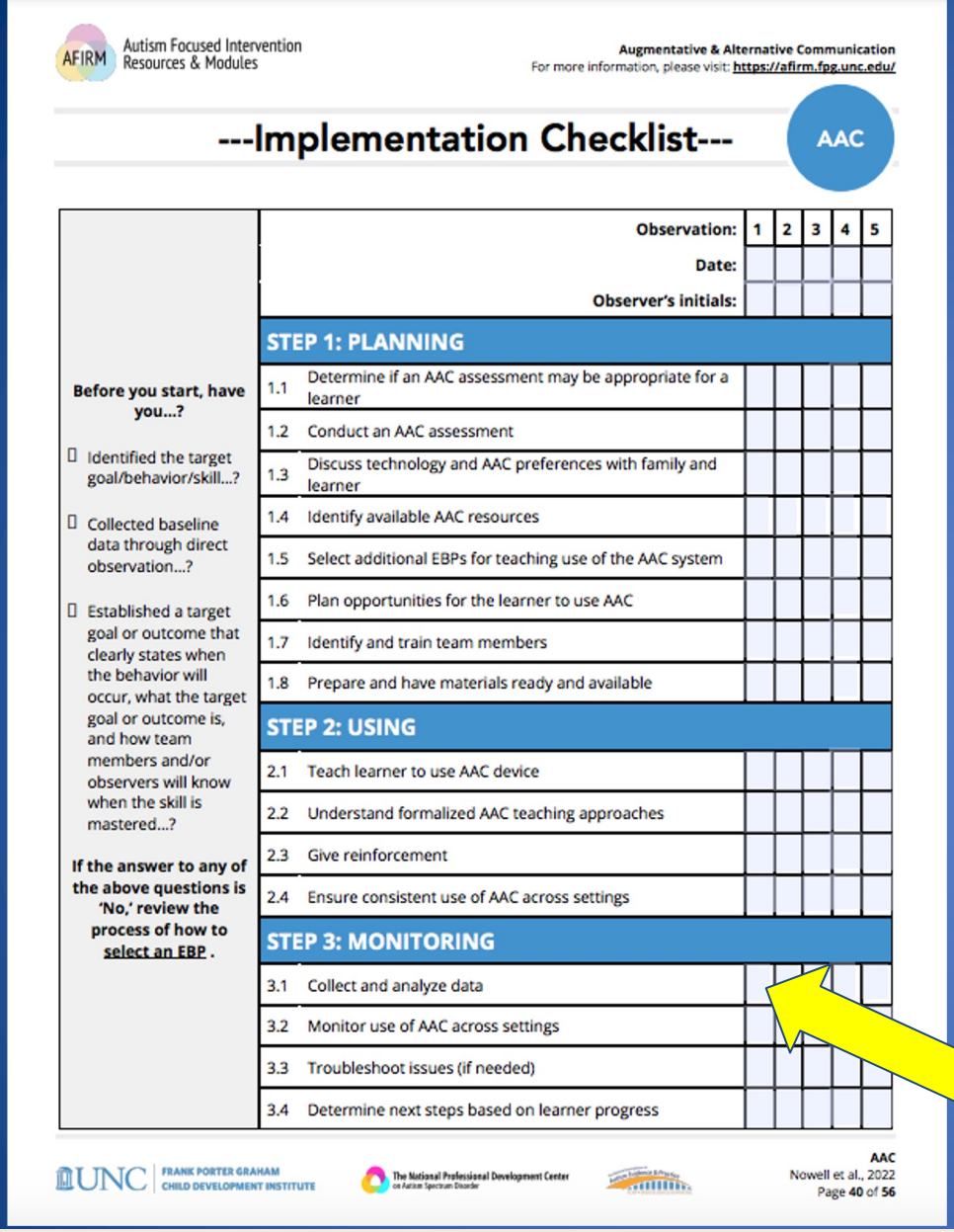
- Make sure device/system is portable
- Coordinate with other staff the important details of transporting the device, prompting that is necessary for device usage, and maintenance that may be required
- Device/system should not be withheld from the learn even if it is perceived as being misused
- Consider how the device will be transported home (backpack, held by student, bus communication)

Ensure Consistent Use of AAC Across Settings

Suggestions for Collaboration with Family:

- Consider how the device will be transported home
  (backpack, held by student, bus communication)
- Inform the family about proper care and storage of the device/system at home

AAC Implementation Checklist



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---Implementation Checklist---

AAC

Before you start, have you...?

- ☐ Identified the target goal/behavior/skill...?
- ☐ Collected baseline data through direct observation...?
- ☐ Established a target goal or outcome that clearly states when the behavior will occur, what the target goal or outcome is, and how team members and/or observers will know when the skill is mastered...?

If the answer to any of the above questions is 'No,' review the process of how to select an EBP .

		Observation:	1	2	3	4	5
		Date:					
		Observer's initials:					
STEP 1: PLANNING							
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3.1	Collect and analyze data						
3.2	Monitor use of AAC across settings						
3.3	Troubleshoot issues (if needed)						
3.4	Determine next steps based on learner progress						

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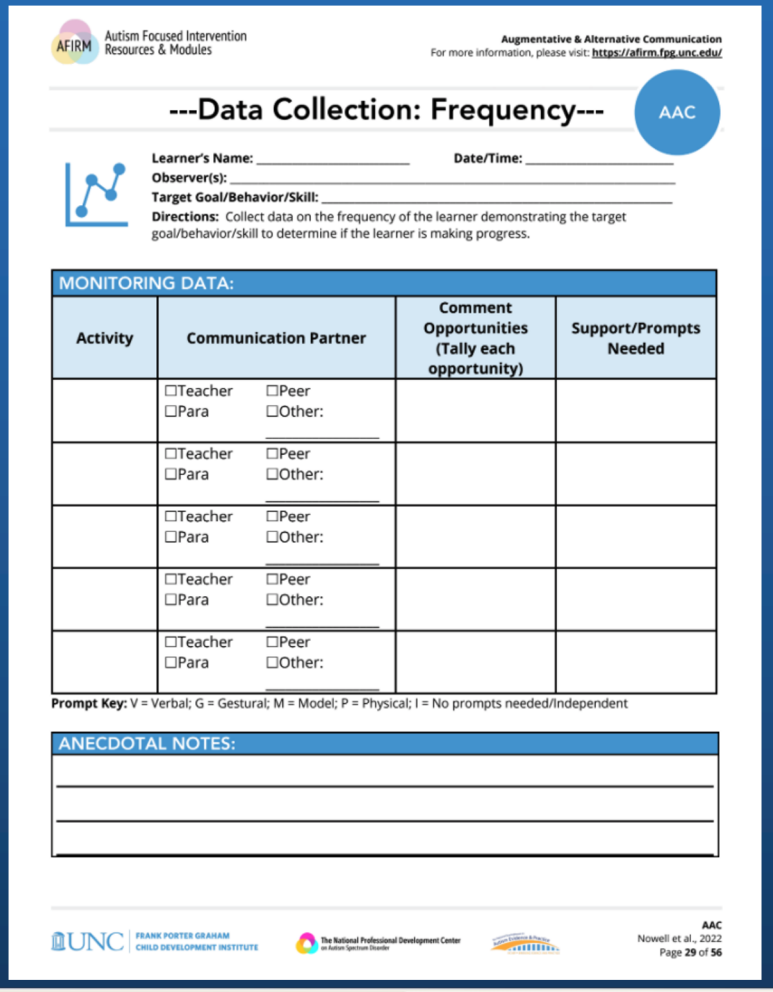
Monitoring the Implementation of AAC

- Collect and analyze data
- Monitor use of AAC across settings
- Troubleshoot Issues if needed
- Determine next steps based on learner progress

Collect and Analyze Data

Important Things To Monitor:

- Number of opportunities to communicate;
- Who the communication partners are (i.e., peers, adults, family members;
- Level of support needed to use the communication system/device (prompts needed, time required etc.)



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---Data Collection: Frequency---

AAC

Learner's Name: _____ **Date/Time:** _____
Observer(s): _____
Target Goal/Behavior/Skill: _____
Directions: Collect data on the frequency of the learner demonstrating the target goal/behavior/skill to determine if the learner is making progress.

MONITORING DATA:

Activity	Communication Partner	Comment Opportunities (Tally each opportunity)	Support/Prompts Needed
	☐Teacher ☐Peer ☐Para ☐Other: _____		
	☐Teacher ☐Peer ☐Para ☐Other: _____		
	☐Teacher ☐Peer ☐Para ☐Other: _____		
	☐Teacher ☐Peer ☐Para ☐Other: _____		
	☐Teacher ☐Peer ☐Para ☐Other: _____		

Prompt Key: V = Verbal; G = Gestural; M = Model; P = Physical; I = No prompts needed/Independent

ANECDOTAL NOTES:

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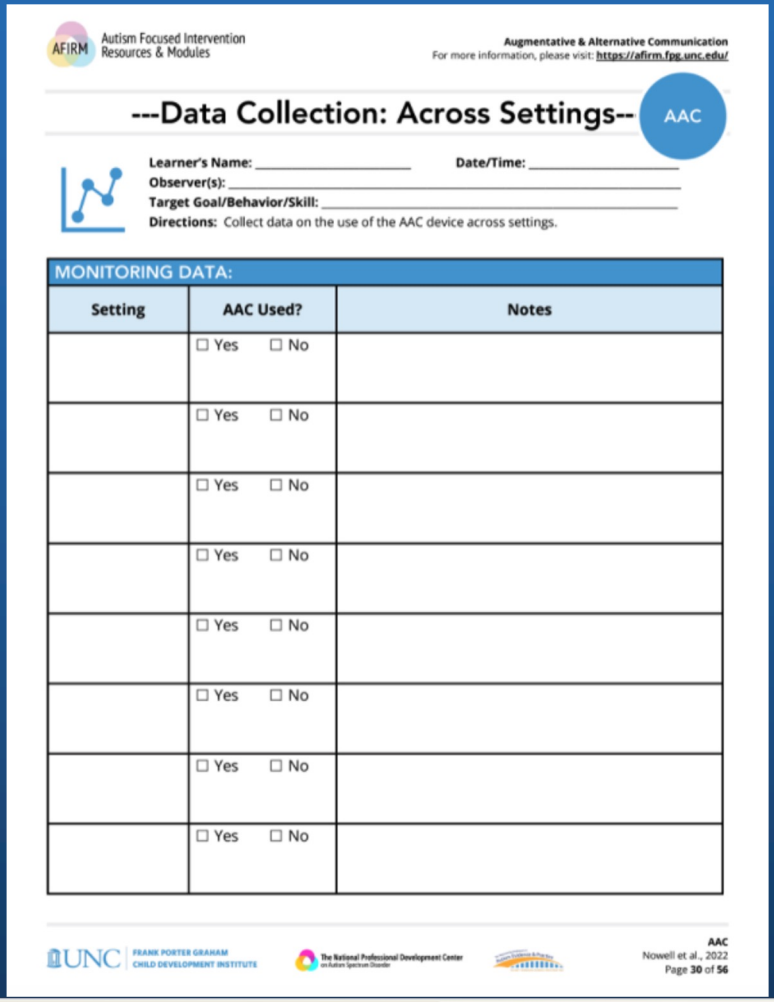
Monitor Use Of AAC Across Settings

- Collect data from a variety of communication partners: family, peers, teachers, community members and the student
- Gather data from emails, texts, sticky notes on the communication system/device, photographs/videos
- Schedule phone calls or zoom meetings for regular check-ins.



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---Data Collection: Across Settings-- AAC

Learner's Name: _____ Date/Time: _____
Observer(s): _____
Target Goal/Behavior/Skill: _____
Directions: Collect data on the use of the AAC device across settings.

MONITORING DATA:

Setting	AAC Used?	Notes
	☐ Yes ☐ No	
	☐ Yes ☐ No	
	☐ Yes ☐ No	
	☐ Yes ☐ No	
	☐ Yes ☐ No	
	☐ Yes ☐ No	
	☐ Yes ☐ No	
	☐ Yes ☐ No	

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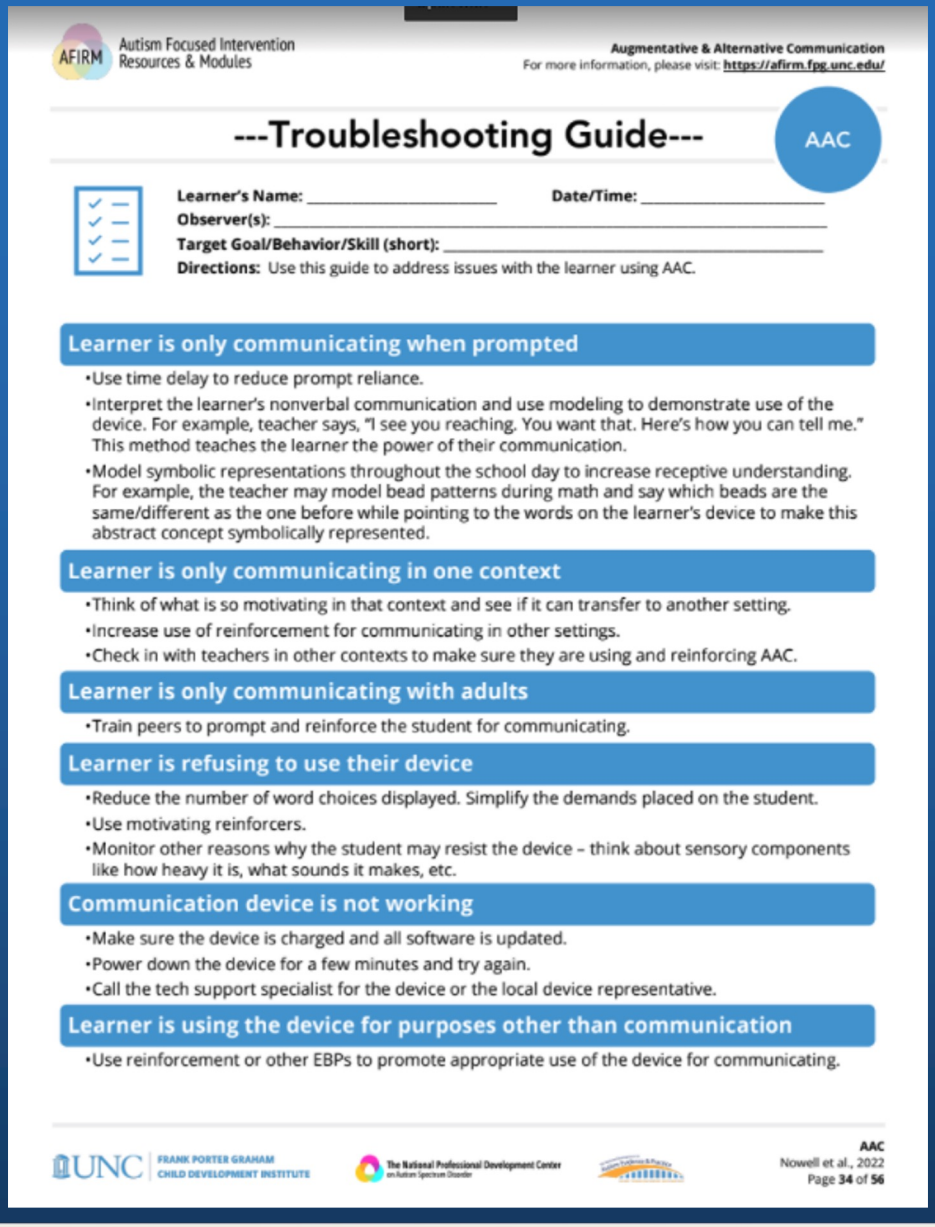
Troubleshoot Issues If Needed

- Data gathered will help guide changes that need to be made to learner's communication system
  - increasing communication demands in specific settings
  - increasing vocabulary
  - increasing pages or levels on a system
  - increasing communication partners
  - increasing communication functions



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Augmentative & Alternative Communication
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---Troubleshooting Guide---

AAC

Learner's Name: _____ **Date/Time:** _____
Observer(s): _____
Target Goal/Behavior/Skill (short): _____
Directions: Use this guide to address issues with the learner using AAC.

Learner is only communicating when prompted

- Use time delay to reduce prompt reliance.
- Interpret the learner's nonverbal communication and use modeling to demonstrate use of the device. For example, teacher says, "I see you reaching. You want that. Here's how you can tell me." This method teaches the learner the power of their communication.
- Model symbolic representations throughout the school day to increase receptive understanding. For example, the teacher may model bead patterns during math and say which beads are the same/different as the one before while pointing to the words on the learner's device to make this abstract concept symbolically represented.

Learner is only communicating in one context

- Think of what is so motivating in that context and see if it can transfer to another setting.
- Increase use of reinforcement for communicating in other settings.
- Check in with teachers in other contexts to make sure they are using and reinforcing AAC.

Learner is only communicating with adults

- Train peers to prompt and reinforce the student for communicating.

Learner is refusing to use their device

- Reduce the number of word choices displayed. Simplify the demands placed on the student.
- Use motivating reinforcers.
- Monitor other reasons why the student may resist the device – think about sensory components like how heavy it is, what sounds it makes, etc.

Communication device is not working

- Make sure the device is charged and all software is updated.
- Power down the device for a few minutes and try again.
- Call the tech support specialist for the device or the local device representative.

Learner is using the device for purposes other than communication

- Use reinforcement or other EBPs to promote appropriate use of the device for communicating.

UNC FRANK PORTER GRAHAM CHILD DEVELOPMENT INSTITUTE
The National Professional Development Center on Autism Spectrum Disorder

Troubleshoot Issues If Needed

Determine next steps based on learner progress

Implementation Fidelity is Critical

What does this mean?

"Implementing an intervention in the same manner in which it was done in the evidence based research"

THE NATIONAL PROFESSIONAL DEVELOPMENT CENTER ON AUTISM SPECTRUM DISORDERS

Implementation Fidelity is Critical!

How implementation fidelity achieved:

1. Use Implementation Checklists for the EBP to capture fidelity of implementation
2. Refer to NCAEP EBP Fact Sheets
3. Use AFIRM self-learning modules on EBPs
4. Attend training on the EBPs
5. Access coaching on the EBP until fidelity is attained

Resources

PECS: https://pecsusa.com/

AFIRM:
https://afirm.fpg.unc.edu/

CAPTAIN:
https://www.captain.ca.gov/

ASHA:
https://www.asha.org/public/speech/disorders/AAC

CAPTAIN
California Autism Professional Training and Information Network

SELPA Content Lead
EVIDENCE Based Practices
—Autism—
Marin County SELPA

CAPTAIN

CAPTAIN_EBPS

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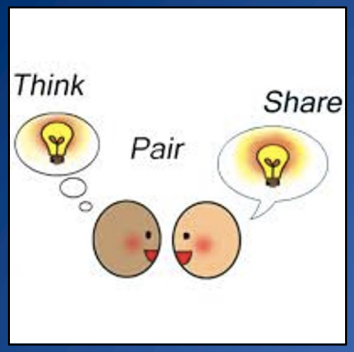
CAPTAIN

www.captain.ca.gov
captain@marinschools.org

Questions



My Takeaways

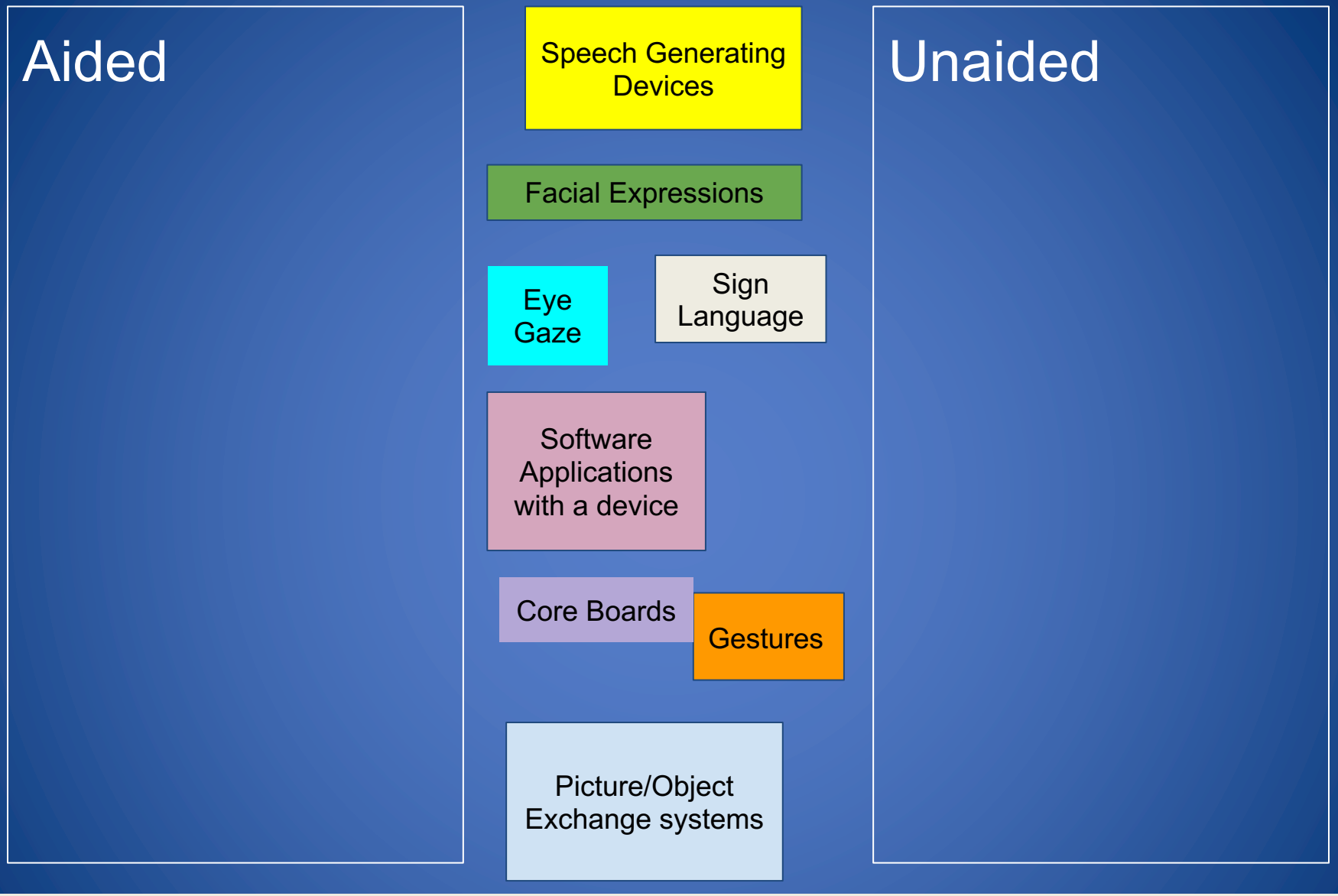
1. What are 4 things you remember from today's training?

1. What are 2 things you see yourself doing?

1. What is the 1 thing you can implement tomorrow?

After the Training…

Please complete the **Post Training Survey** that will be sent to your email


Aided
Speech Generating Devices
Facial Expressions
Eye Gaze
Sign Language
Software Applications with a device
Core Boards
Gestures
Picture/Object Exchange systems
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