

Title

Evidence Based Practice:

Antecedent Based Interventions (ABI)

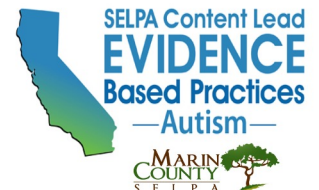
Adapted from Sam, A., & AFIRM Team. (2016).
Antecedent Based Interventions. Chapel Hill, NC: National
Professional Development Center on Autism Spectrum
Disorder, FPG Child Development Center, University of
North Carolina. Retrieved from
<https://afirm.fpg.unc.edu/modeling>

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



www.captain.ca.gov



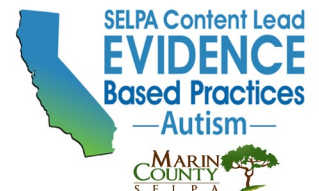
What is CAPTAIN

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.



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Before We Begin...

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

Levels of Professional Development to Reach Implementation



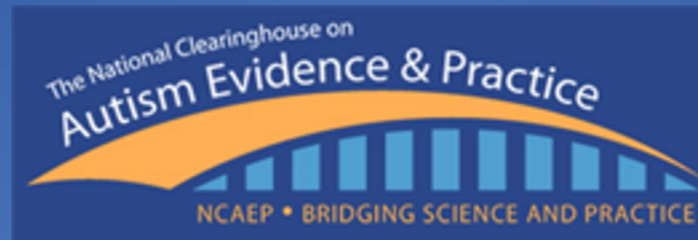
This is a Workshop/Training and is designed to increase your KNOWLEDGE of the topic. Implementation supports to assist you with use of this EBP will be outlined following the TRAINING/WORKSHOP

Core Components: Learning Objectives

Participants will:

- Identify the goals of using ABI
- Identify antecedents that may be triggering interfering behaviors
- Identify common prevention techniques (ABIs) that can be used based on triggers and probable functions of interfering behavior

What are Evidence Based Practices?



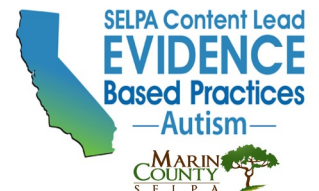
NCAEP definition of an EBP:

“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.



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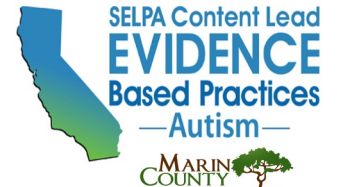
Evidence Based Practice Matrix (28 EBPs)

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							
ABI																																								
AAC																																								
BMI																																								
CBIS																																								
DR																																								
DI																																								
DTT																																								
EXM																																								
EXT																																								
FBA																																								
FCT																																								
MD																																								
MMI																																								
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PII																																								
PBII																																								
PP																																								
R																																								
RIR																																								
SM																																								
SI																																								
SN																																								
SST																																								
TA																																								
TAII																																								
TD																																								
VM																																								
VS																																								



AVAILABLE ON CAPTAIN WEBSITE
www.captain.ca.gov




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.fg.uic.edu/>

---Selecting an EBP Checklist---

AFIRM

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:

Selecting an EBP
AFIRM Team, 2020-8
Page 1 of 3

 Autism Focused Intervention Resources & Modules

 Selecting an EBP Checklist
For more information, please visit: <https://afirm.fg.uic.edu/>

CHECK ANNUAL GOAL FOR:

1. Context (When/Antecedent)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. Target goal/behavior/skill (What/Behavior the learner is to perform)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
3. Mastery (How/Criterion for learner progress/mastery)	<input type="checkbox"/> Yes	<input type="checkbox"/> 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:
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Clues found in the IEP Goal

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

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

Selecting an EBP
AFIRM Team, 2020-8
Page 2 of 3

 Autism Focused Intervention Resources & Modules

 Selecting an EBP Checklist
For more information, please visit: <https://afirm.fg.uic.edu/>

SELECT AN EBP:

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IF APPLICABLE, IDENTIFY ADDITIONAL EBPs TO BE USED WITH THE SELECTED EBP:

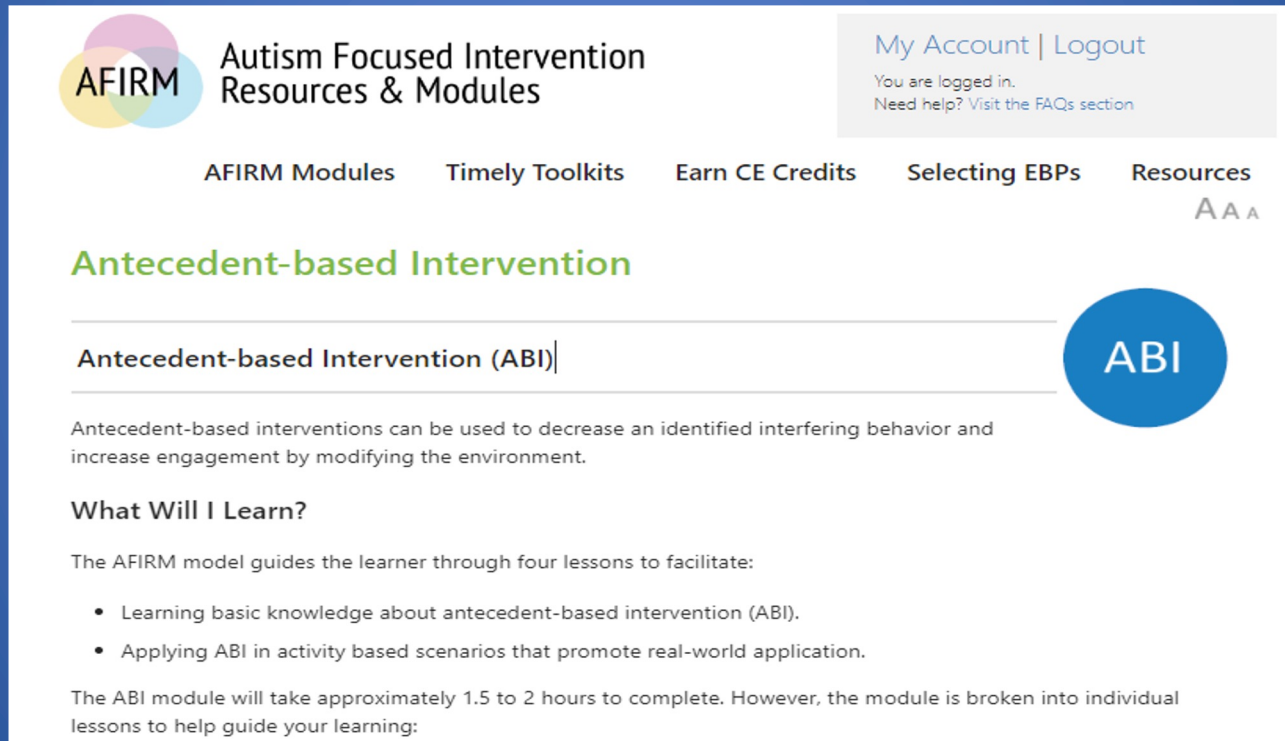
<input type="checkbox"/> Reinforcement (R+)	<input type="checkbox"/> Prompting (PP)	<input type="checkbox"/> Modeling (MD)
<input type="checkbox"/> Task Analysis (TA)	<input type="checkbox"/> Time Delay (TD)	<input type="checkbox"/> Visual Supports (VS)
<input type="checkbox"/> Functional Behavior Assessment (FBA)	<input type="checkbox"/> _____	<input type="checkbox"/> _____

ADDITIONAL NOTES:

High Quality Training:

Autism Focused Intervention Resources and Modules (AFIRM)

Designed to help you learn the step-by-step process of planning for, using, and monitoring EBPs with learners with Autism from birth to 22 years of age



The screenshot shows the AFIRM website interface. At the top left is the AFIRM logo, a circle divided into four colored segments (pink, yellow, blue, green) with the text 'AFIRM' overlaid. To its right is the text 'Autism Focused Intervention Resources & Modules'. In the top right corner, there is a 'My Account | Logout' link, and below it, the text 'You are logged in. Need help? Visit the FAQs section'. A navigation menu below the header includes 'AFIRM Modules', 'Timely Toolkits', 'Earn CE Credits', 'Selecting EBPs', and 'Resources'. A search icon 'AAA' is visible to the right of the 'Resources' link. The main content area features the title 'Antecedent-based Intervention' in green. Below this is a search bar containing the text 'Antecedent-based Intervention (ABI)'. To the right of the search bar is a blue circular button with the text 'ABI'. Below the search bar, a paragraph states: 'Antecedent-based interventions can be used to decrease an identified interfering behavior and increase engagement by modifying the environment.' This is followed by the section 'What Will I Learn?' and a sub-section 'The AFIRM model guides the learner through four lessons to facilitate:' with a bulleted list: '• Learning basic knowledge about antecedent-based intervention (ABI).', '• Applying ABI in activity based scenarios that promote real-world application.' Below the list, a paragraph states: 'The ABI module will take approximately 1.5 to 2 hours to complete. However, the module is broken into individual lessons to help guide your learning:'

Antecedent Based Interventions (ABI)

- An evidence-based practice for children and youth with autism from 0-22 years old that can be implemented in multiple settings
- ABI focuses on identifying the events that take place immediately before and after an identified interfering behavior in order to modify the environment to change the conditions in the setting that prompt a learner to engage in the behavior

Why Use ABI?

- ABI is designed to prevent the identified interfering behavior from occurring
- Team members can use ABI to increase engagement and on-task behaviors
- ABI is easy to implement and require little additional effort by team members

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						

ABI is Used With Other EBPs

Functional Behavior Assessment (FBA)

And Often:

- Functional Communication Training (FCT)
- Extinction (EXT)
- Reinforcement (R+)
- Visual Supports (VS)

A Functional Behavior Assessment Is Used to Inform ABI



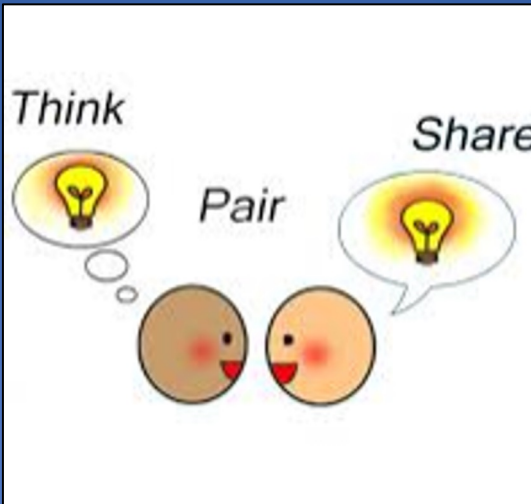
Antecedent Behavior Consequence

Functions of Behavior = Why It Occurs

- Items
- Attention or interactions
- Activities
- Sensory input or stimulation



- Items
- Attention or interactions
- Activities
- Sensory input or stimulation

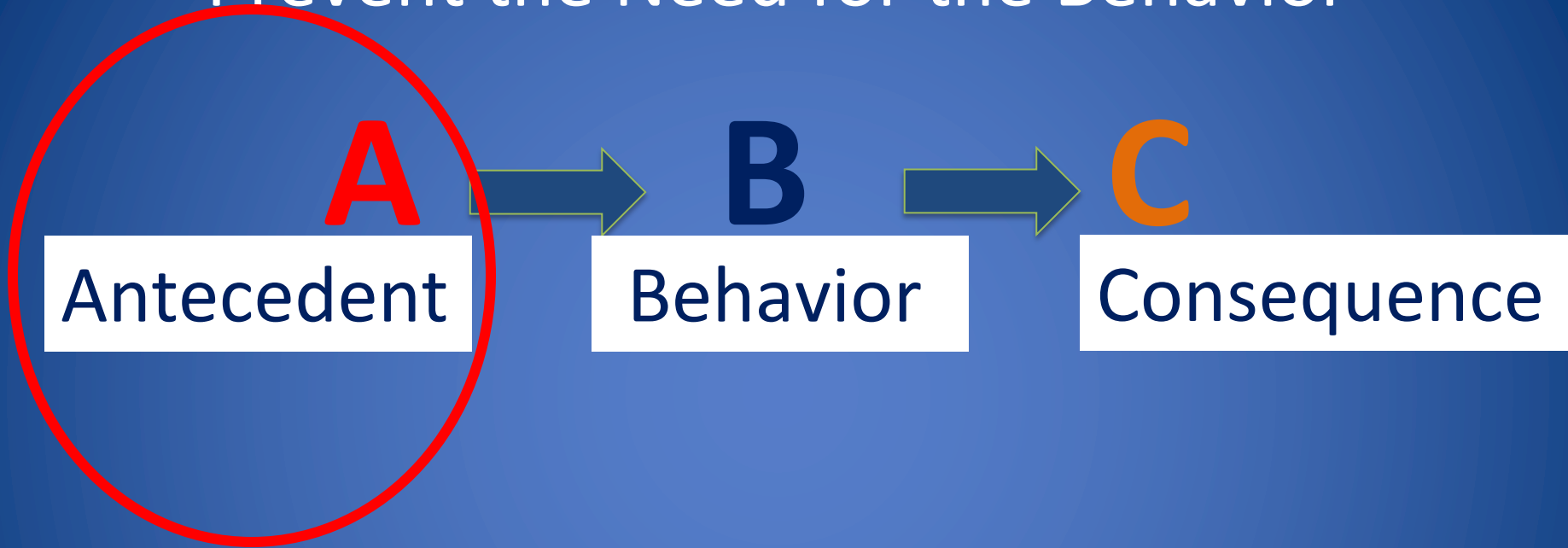


ABCs of Our Behavior....

- Scenerio One: Late for work
- Scenerio Two: Leisurely Sunday Drive



ABI = Rearranging the Antecedents to Prevent the Need for the Behavior




Planning for ABI Use

Step 1: Planning

- 1.1 Identify and define interfering behavior through an FBA.
- 1.2 Collect data using direct observation methods.
- 1.3 Review data collected from direct observations.
- 1.4 Develop a hypothesis statement and an overall goal.

Collect ABC Data



AFIRM
Autism Focused Intervention
Resources & Modules

Antecedent-based
Intervention


---A-B-C Data Chart---

Learner's Name: _____ Date/Time: _____
 Observer(s): _____
 Interfering Behavior: _____

A-B-C Data Chart:
In the table below, record your observations

	Antecedent	Behavior	Consequence
Date:			
Time:			
Date:			
Time:			
Date:			
Time:			
Date:			
Time:			
Date:			
Time:			
Date:			
Time:			
Date:			
Time:			
Date:			
Time:			
Date:			
Time:			

Antecedent-based
intervention



AFIRM

Action Focused Intervention
Research & Models

ABI Planning Worksheet

Learner's Name: _____ Date/Time: _____

Team Members: _____

Identify features of the behavior:

Where does the behavior occur? _____

With whom does the behavior occur? _____

When does the behavior occur? _____

During what activities does the behavior occur? _____

Identify features of the environment:

What are other peers/students doing when the behavior occurs? _____

What is the proximity of other students, teachers, and/or adults when the behavior occurs? _____

Number of individuals in the area: _____

Other environmental conditions: _____

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Antecedent-based
intervention

Determine the function of the behavior:

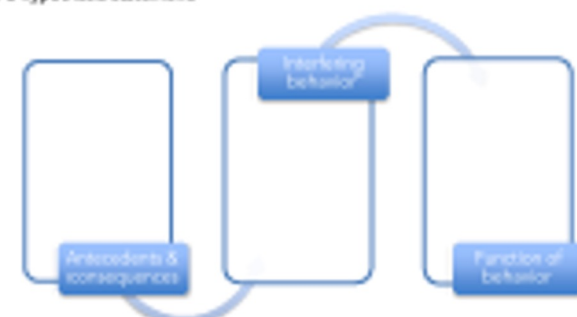
To get or obtain:

- Attention
- Food
- Toys
- Hugs
- Sensory Stimulation
- Other: _____

To escape/avoid:

- Attention
- Difficult subjectivity
- Undesirable activity
- Sensory stimulation
- Social stimulation
- Other: _____

Develop a hypothesis statement:



```

graph LR
    A[Antecedents & consequences] --> B[Interfering behavior]
    B --> C[Function of behavior]
    
```

Hypothesis statement: _____

Determine overall goal for ABI: _____

For more information visit:
www.afirm.fgcu.edu

Antecedent-based Intervention National Professional Development Center on ASD 2018 2 of 31

Using ABI Strategies

Step 2: Using
2.1 Select an ABI strategy that addresses the function of the interfering behavior.
<input type="checkbox"/> Using learner preferences
<input type="checkbox"/> Changing schedules/routines
<input type="checkbox"/> Implementing pre-activity interventions
<input type="checkbox"/> Using choice-making
<input type="checkbox"/> Altering how instruction is delivered
<input type="checkbox"/> Enriching the environment with sensory stimuli
2.2 Create lesson plan that includes selected ABI strategy.
2.3 Ignore interfering behavior.
2.4 Provide learner with reinforcement.

Selecting ABI Strategies

- Choose ABI strategies based on the triggering events (avoid or alter them) and the primary function of the interfering behavior
- Teach and reinforce an alternative (or absence of) the interfering behavior
- Strategies selected should prevent the need to engage in the interfering behavior

Common ABI Strategies Include:

- Using learner preferences
- Changing schedules/routines
- Implementing pre-activity interventions
- Infusing choice making
- Altering how instruction is delivered (input and output)
- Enriching or altering the sensory environment

ABI Strategies Based on Perceived Function(s)

Escape

Time Warning
Visual Schedule
Incorporate choice and preferences

Attention

Environmental Enrichment
Reinforce A Replacement
Visual Supports

Tangible

Offer Choices
Visual Supports/Reinforcement Systems
Reinforce A Replacement
Changing Routines

Sensory

Environmental Enrichment
Visual Supports
Reinforce A Replacement
Reinforcement for absence of behavior

Strategy

Function of Behavior

Examples

USING LEARNER PREFERENCE

Tasks/activities are modified and adapted to increase learner's interest.

- Escape/avoid

- Use monster trucks in math problems
- Use a Batman pencil for writing activities.

Use Learner Preferences Within Activities

Activity 1: 3 orange bricks + 2 blue bricks = _____

Activity 2: 4 blue bricks + 1 green brick = _____

Activity 3: 2 red bricks + 3 yellow bricks = _____

Activity 4: 2 green bricks + 2 orange bricks = _____

Activity 5: 4 blue bricks + 1 yellow brick = _____

Activity 6: 3 green bricks + 1 green brick + 1 red brick = _____

Activity 7: 1 red brick + 2 green bricks + 3 orange bricks = _____

Lego Math

Activity 1: Blue superhero with sword

Activity 2: Red superhero with cape

Activity 3: Green superhero with cape

Activity 4: Red and blue superhero

Activity 5: Black and yellow superhero

Super Hero Writing

Strategy

Function

Examples

**CHANGING
SCHEDULES/ROUTINES**

Routines/schedules are changed to decrease interfering behaviors.

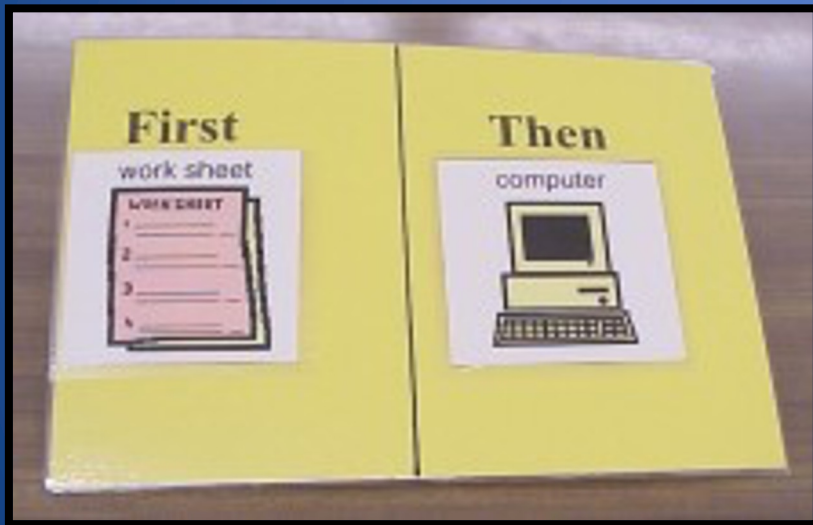
- Escape/avoid

- Changing hand washing routine.
- Going outside (preferred activity) after completing work assignment (non-preferred activity).
- Using a visual timer to show how long learner must remain seated.
- Clearly labeling parts of the classroom.

Change Hand Washing Routine.....



First - Then Visual Schedule System



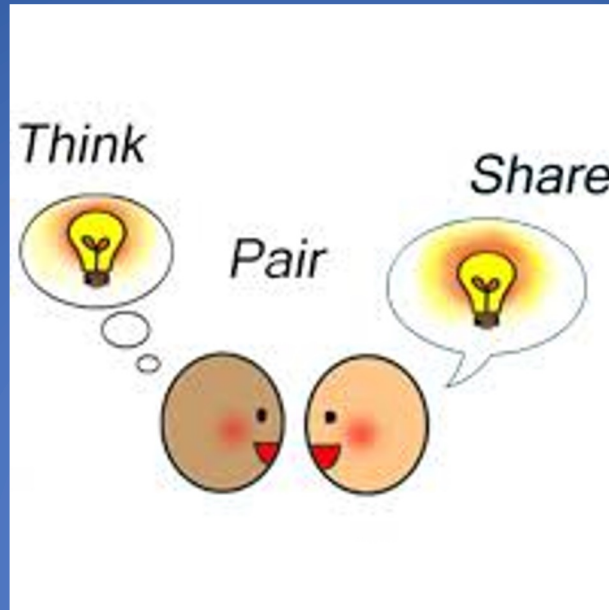
Timers and Alarms:



Structure in the Environment



Three areas are clearly defined with barriers, signs and specific materials to clarify expectations



Can you think of other examples of how you could change schedules or routines to prevent interfering behaviors?

Strategy

Function

Examples

**IMPLEMENTING PRE-
ACTIVITY
INTERVENTIONS**

Implemented before a task/activity associated with the interfering behavior.

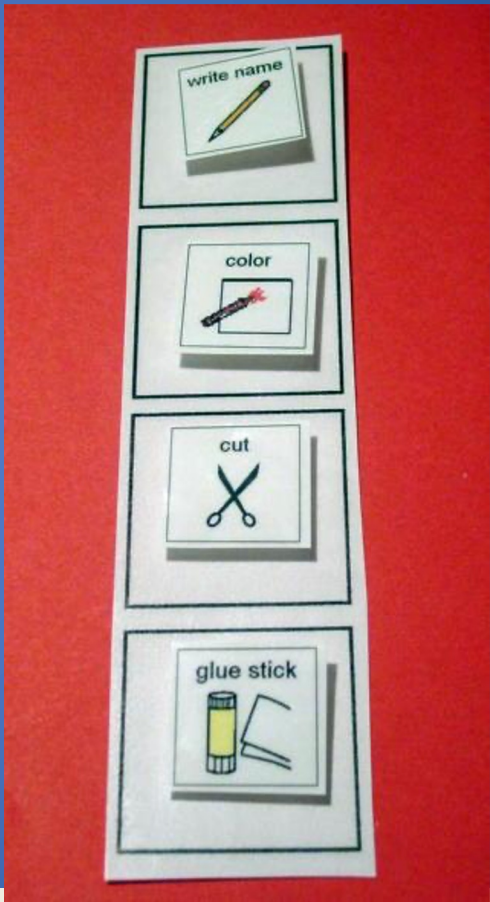
- Escape/avoid

- Reviewing assignment components before receiving assignment
- Using visual activity schedules
- Providing a warning before time to switch centers or activities

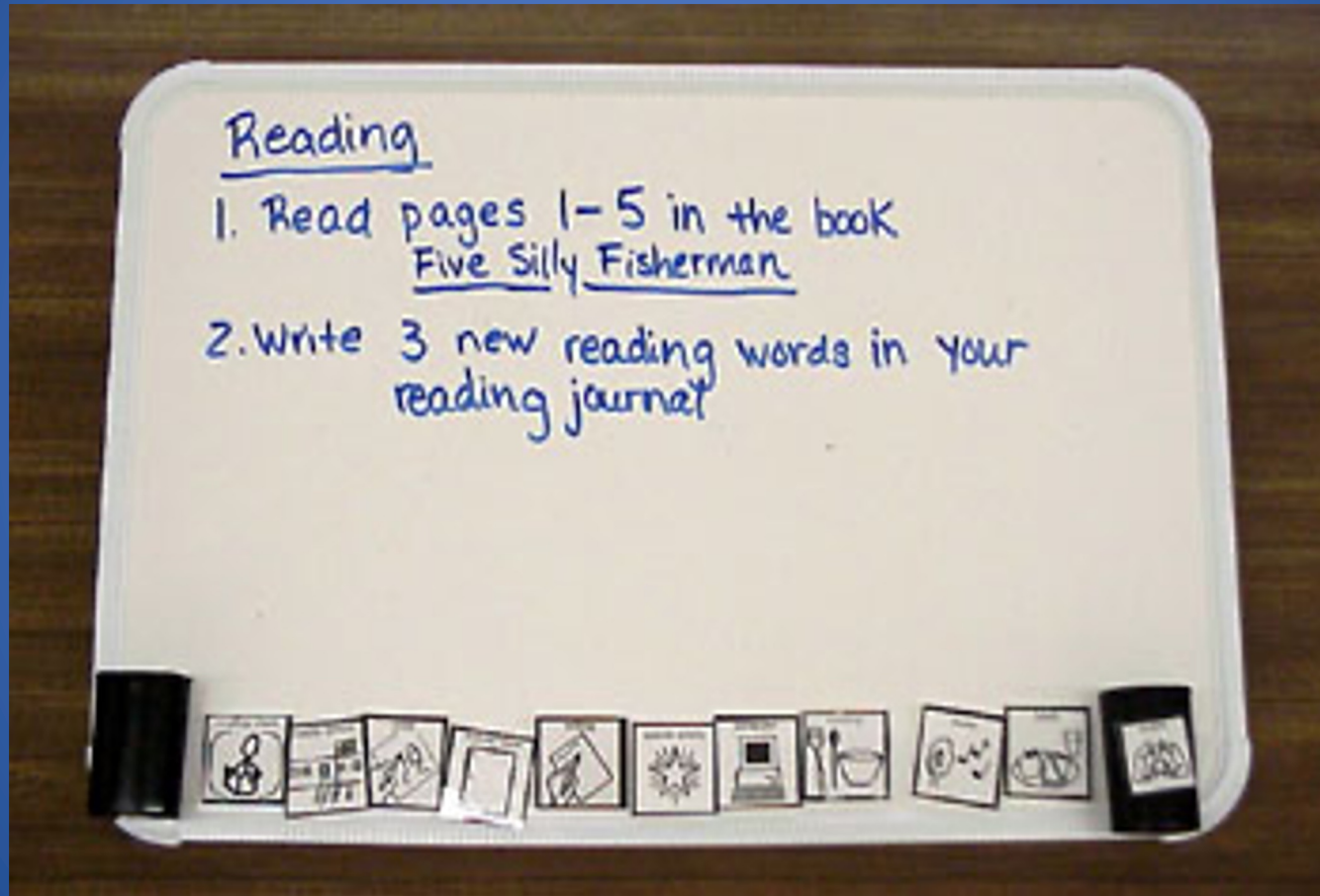
Visual Step By Step Instructions

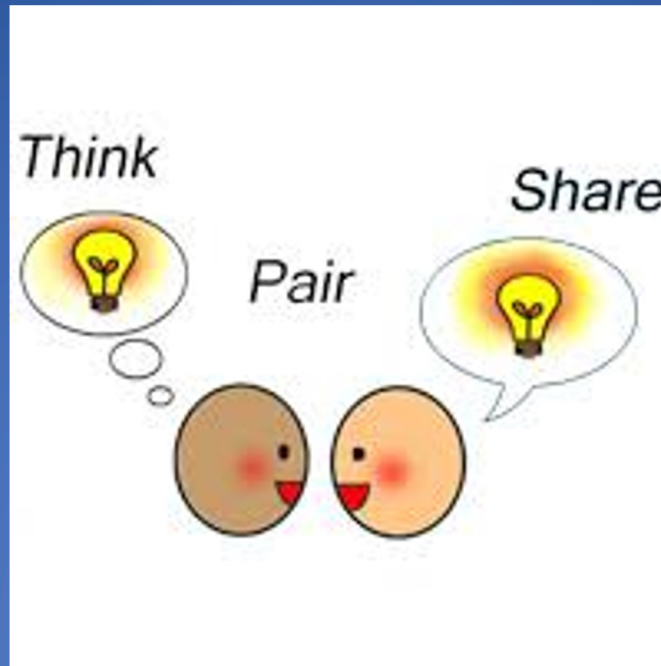


Visual sequence and organization of steps within an activity



Used to Review Steps Before Assignment





Can you think of other examples of how pre activity interventions could be used to prevent interfering behaviors?

Strategy

Function

Examples

**USING CHOICE-
MAKING**

During activities or settings where interfering behavior occurs, learner is presented choice of materials or tasks

- Escape/avoid

- Choosing where to sit at circle time
- Choosing who to work with in a group
- Choosing which assignment to complete first



Choices....Choices....

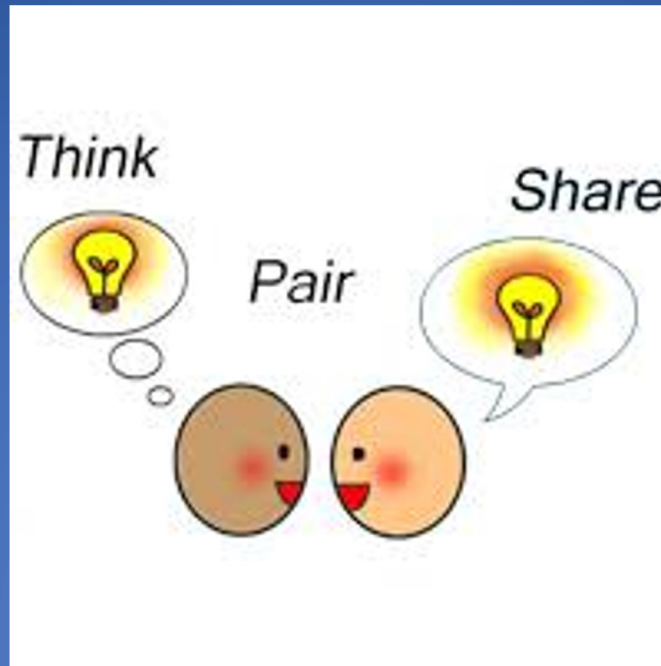


Let's watch an example of giving choices



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Can you think of other examples of how choices could be used to prevent interfering behaviors?

Strategy

Function

Examples

**ALTERING HOW
INSTRUCTION IS
DELIVERED**

Modify instruction in order for learner to understand expectations.

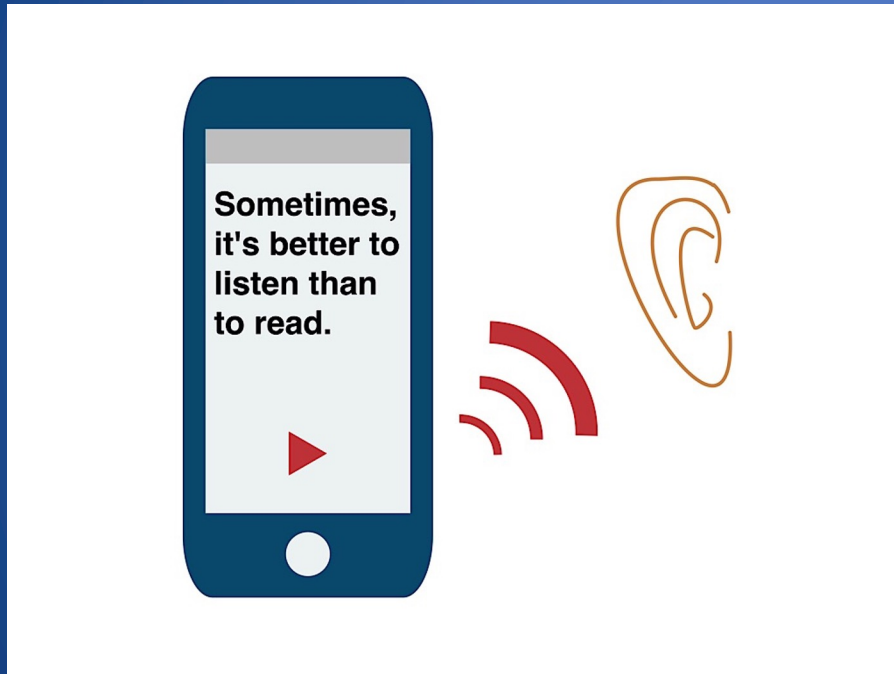
- Escape/avoid

- Provide written instructions rather than verbal instructions
- Read text passage rather than requiring learner to read silently

Provide Visual Instructions and Checklists

<input checked="" type="checkbox"/>	Researching State of New York
	Identify Sub-Topics
	Go to library
	Find 2-3 Books w/subtopic info
	Photocopy pages w/subtopic info
	Go Online
	Download 2-3 articles on each topic
	Highlight important info from articles and photocopied chapters
Reviewed By:	

Provide Options for “Input and Output”



Example of Allowing Alternative “Output”

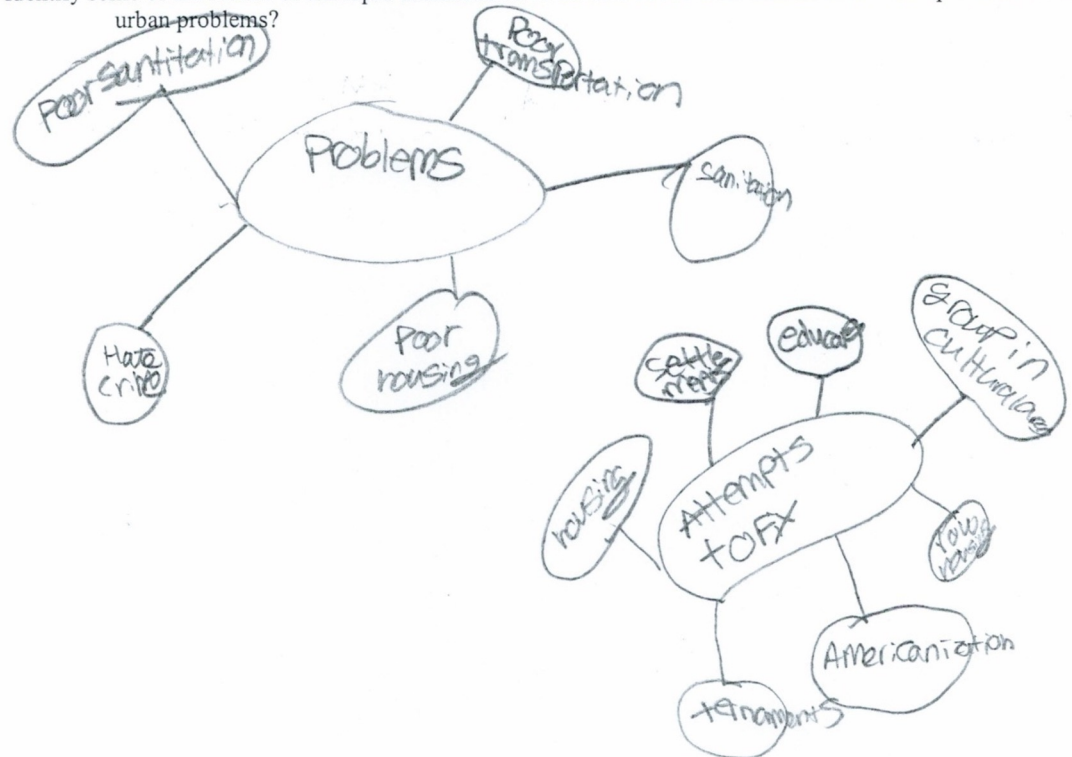
35. Explain what many of the unions were working for during this period in time?

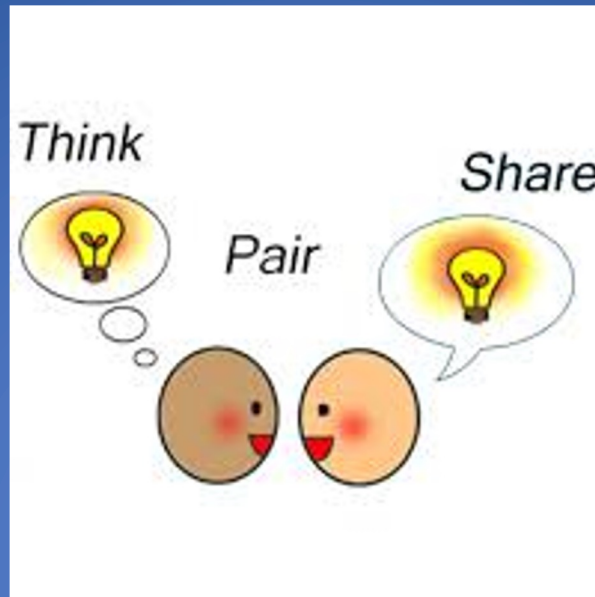
equal Fair, and safe treatment of workers.

36. Why did many unions loose the support of the people during the late 1900's?

Because the government stepped in, and supported business owners.

Identify some of the results of the rapid urbanization of the late 1800s then discuss some attempts made to ease urban problems?





Can you think of other examples of how you could alter how instruction is provided to prevent interfering behaviors?

Strategy

Function

Examples

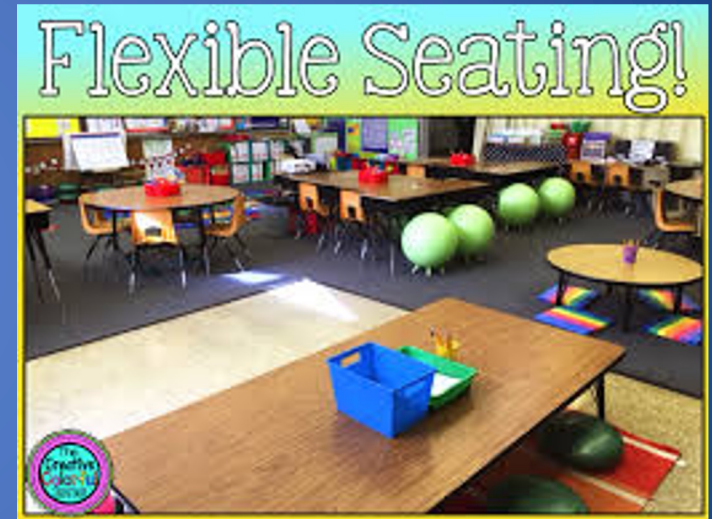
ENRICHING ENVIRONMENT WITH SENSORY STIMULI

Provide access to appropriate behaviors

- Get/obtain

- Allow learner to play with a fidget toy when teacher is reading from text
- Provide access to a rocking chair to allow for rocking

Examples of Fidget Tools and Flexible Seating Options



Let's Watch and Example of Altering the Sensory Environment



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Resources and Modules

Practice with Feedback

Watch the video segment and identify:

1. Probable function of the wandering behavior
1. ABI that could be used to prevent the wandering



Create Your ABI Lesson Plan

Antecedent-Based Intervention



---ABI Lesson Plan---

Learner's Name: Sam Date/Week of: 2/17/16
Teacher(s): Ms. Hodge Classroom: 3rd grade
Interfering Behavior: Crumbles up paper and puts head down on desk when asked to participate in a group assignment.

Objective(s): 1. Sam will work on an assignment with a small group for five minutes. 2.
Strategy: using learner preference and altering how instruction is delivered
To implement this strategy, I will: 1. Provide Sam with written instructions for assignment rather than providing them verbally 2. Allow Sam to select the peers he would like to work with during the small group 3. Set a timer for five minutes to signal when Sam can leave group. 4. Allow Sam to have 5 minutes of reading his comic book (preferred activity) after staying five minutes in his small group. 5.
Materials needed: 1. Written instructions for assignment 2. Timer 3. Comic book

For more information visit:
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Monitoring ABI


Step 3: Monitoring

3.1 Collect and analyze data on interfering behavior

3.2 Determine next steps based on learner progress

Collect Data to Determine if ABI is Working

Antecedent-based Intervention



---ABI Data Collection & Notes---

Learner's Name: _____ Date/Time: _____
 Observer(s): _____
 Interfering Behavior: _____

Data Collection:

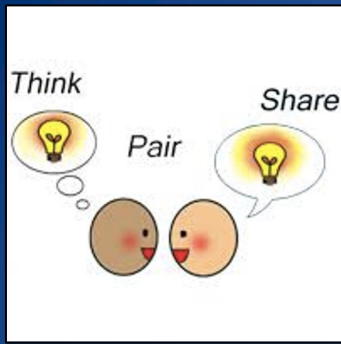
		Date					
Time	Activity						

Anecdotal Notes:

Date	Observer Initials	Target Skill/Behavior, Comments, and Plans for Next Steps
Date	Observer Initials	Target Skill/Behavior, Comments, and Plans for Next Steps

For more information visit:
www.afirm.fpg.unc.edu

Antecedent-based Intervention
National Professional Development Center on ASD
2016
1



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?

What's Next

Antecedent-based Interventions (ABI)
—Implementation Checklist—

To find out more information about...

- Establishing 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.
- Identifying evidence-based practices

Refer to the "Selecting EBPs" section on the website:
afirm.fpg.unc.edu

AFIRM Autism Focused Intervention Resources and Modules

Observation Date	1	2	3	4
Observer's Initials				
Step 1: Planning				
1.1 Identify and define interfering behavior through an FBA.				
1.2 Collect data using direct observation methods.				
1.3 Review data collected from direct observations.				
1.4 Develop a hypothesis statement and an overall goal.				
Step 2: Using				
2.1 Select an ABI strategy that addresses the function of the interfering behavior.				
<input type="checkbox"/> Using learner preferences				
<input type="checkbox"/> Changing schedules/routines				
<input type="checkbox"/> Implementing pre-activity interventions				
<input type="checkbox"/> Using choice-making				
<input type="checkbox"/> Altering how instruction is delivered				
<input type="checkbox"/> Enriching the environment with sensory stimuli				
2.2 Create lesson plan that includes selected ABI strategy.				
2.3 Ignore interfering behavior.				
2.4 Provide learner with reinforcement.				
Step 3: Monitoring				
3.1 Collect and analyze data on interfering behavior.				
3.2 Determine next steps based on learner progress.				

After the Training...

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



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