

Evidenced Based Practice: Extinction

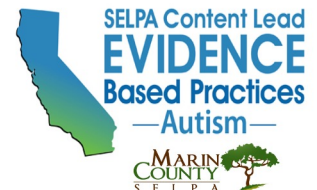
Adapted from Morin, K. & AFIRM Team (2017). *Extinction*. Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorders, FPG Child Development Center, University of North Carolina. Retrieved from <http://afirm.fpg.unc.edu/Extinction>

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



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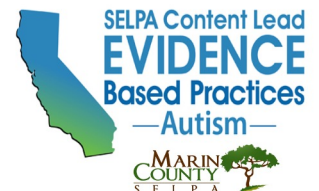
What is CAPTAIN

Marin County SELPA in partnership with CAPTAIN, are members of the Statewide System of Support as the Special Education Content Lead for Autism.

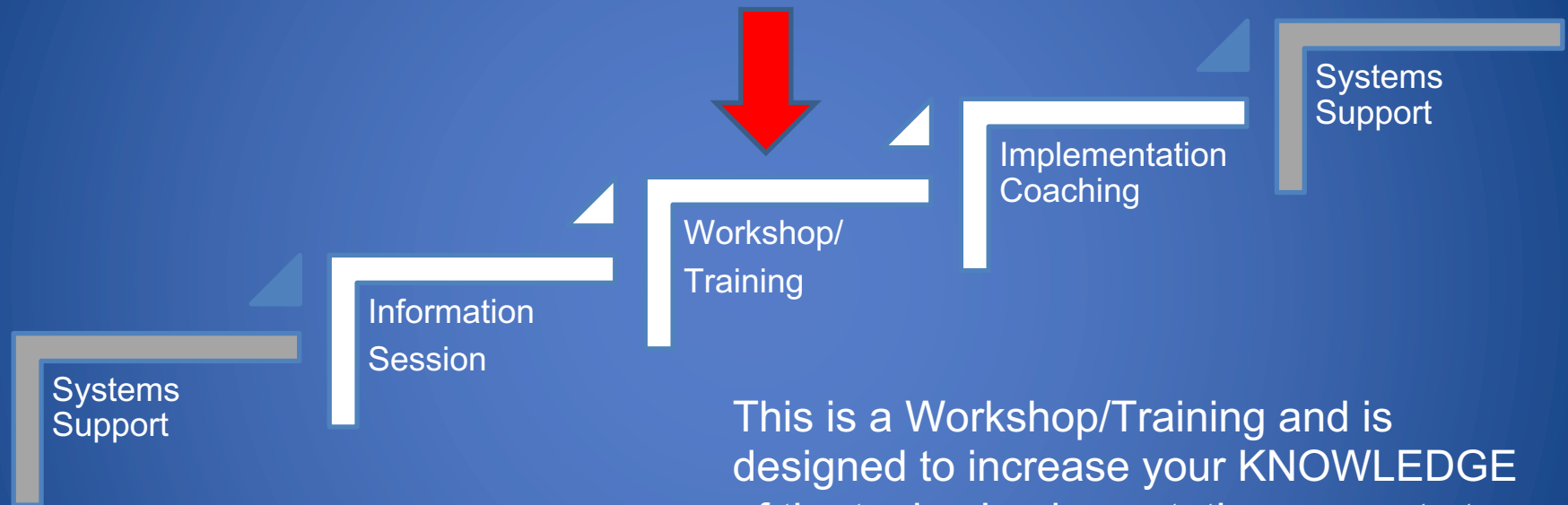
This project is funded by the California Department of Education and the California Collaborative for Educational Excellence.



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Levels of Professional Development to Reach Implementation

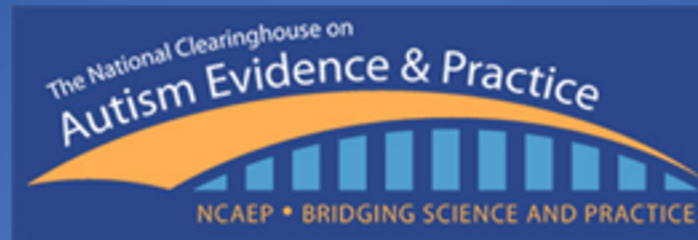


This is a Workshop/Training and is designed to increase your KNOWLEDGE of the topic. Implementation supports to assist you with use of this EBP will be outlined following the TRAINING/WORKSHOP

Before We Begin...

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

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			Communication			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																																							
NI																																							
PII																																							
PBII																																							
PP																																							
R																																							
RIR																																							
SM																																							
SI																																							
SN																																							
SST																																							
TA																																							
TAII																																							
TD																																							
VM																																							
VS																																							

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:

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

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)	<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-R
Page 2 of 3

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 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"/> _____

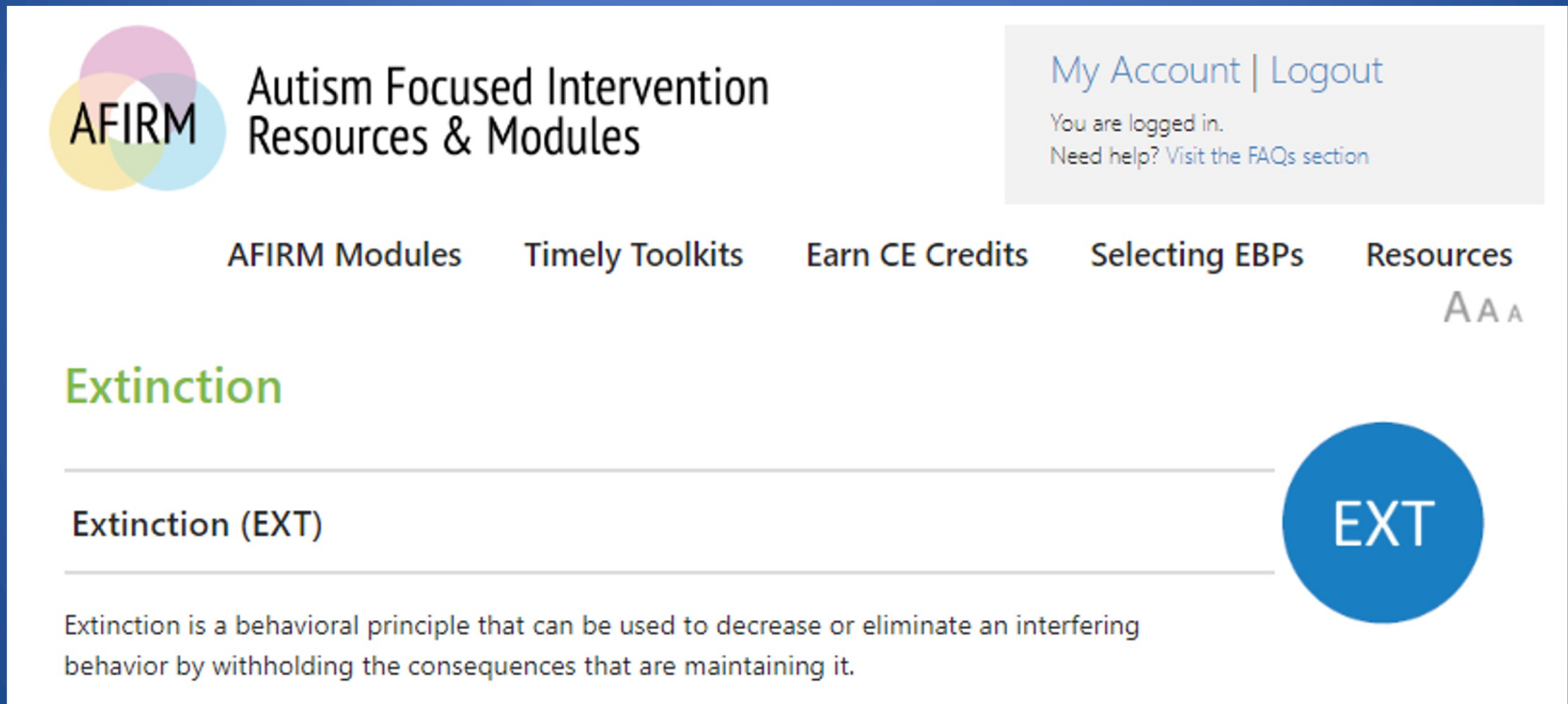
ADDITIONAL NOTES:

Selecting an EBP
AFIRM Team, 2020-R
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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 Venn diagram with three overlapping circles in pink, yellow, and blue, with the text 'AFIRM' overlaid. To the right of the logo is the text 'Autism Focused Intervention Resources & Modules'. In the top right corner, there is a grey box containing the text 'My Account | Logout', 'You are logged in.', and 'Need help? Visit the FAQs section'. Below this is a navigation menu with the following items: 'AFIRM Modules', 'Timely Toolkits', 'Earn CE Credits', 'Selecting EBPs', and 'Resources'. To the right of the 'Resources' menu item are three small 'A' icons. The main content area features the word 'Extinction' in green text. Below this is a horizontal line, followed by the text 'Extinction (EXT)'. To the right of this text is a large blue circle containing the white text 'EXT'. Below the horizontal line is a paragraph of text: 'Extinction is a behavioral principle that can be used to decrease or eliminate an interfering behavior by withholding the consequences that are maintaining it.'

Core Components: Learning Objectives

- Define what extinction is
- Identify when to consider using extinction as an evidence based behavior reduction strategy
- Describe the steps for planning, implementing and monitoring this practice

What is Extinction (EXT)?

- The removal of reinforcing consequences of a challenging behavior in order to reduce the future occurrence of that behavior
- Effective use of EXT relies on accurately identifying the function of the behavior and the consequences that may be reinforcing it

What is an “Extinction Burst?”



- Behavior may increase in intensity, frequency or duration temporarily once reinforcement is removed during EXT procedure
- This happens before behavior begins to decrease
- Only use extinction if you can consistently withhold reinforcement for the interfering behavior

Used with other EBP's

Extinction's effectiveness is maximized when it is combined with additional EBP's:

- Antecedent-Based Intervention
- Differential Reinforcement
- Functional Behavior Assessment
- Functional Communication Training

Extinction vs. Planned Ignoring

- Common misperception between the two
- Planned ignoring is effective when the function of the behavior is attention
- There are additional functions of behavior aside from attention
- We need to remove what is serving as the reinforcer in order to implement extinction effectively

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						

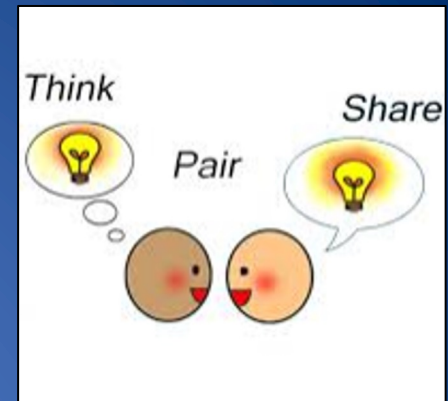
Example

Scenario:

Erik is a third grader with autism in an inclusive setting. He receives attention from his teacher, Ms. Milam, every time he screams. Erik enjoys the attention he receives from Ms. Milam, even though the attention is in the form of reprimands and is generally considered negative attention by others in his class. Because Erik likes the attention, it is serving to reinforce the screaming and it increases the likelihood that the screaming will occur in the future when the Erik wants attention. If Ms. Milam were to consistently stop providing Erik with attention when he screams (i.e., extinction), then the screaming would become less and less frequent until it would stop completely because Erik would no longer be getting reinforcement (i.e., attention) for the behavior (i.e., screaming).



Think - Pair - Share



- Do you have a scenario you might consider using EXT for?
- Why do you think extinction might be an effective practice to try?

Planning for the EBP

- Begin with the FBA
- Determine if Extinction is appropriate
- Select an appropriate replacement behavior(s)
- Determine appropriate prompt/teaching strategy for replacement behavior
- Identify potential variables that affect Extinction
- Plan for the “Extinction Burst” via a crisis plan and corresponding team member training needs

Start with the FBA

- Obtain necessary consent(s) and follow assessment timelines
- Conduct applicable record reviews
- Conduct interviews of staff and parent/care providers
- Develop operational definitions of behavior excesses and deficits
- Schedule out observation times and corresponding measurement systems
- Complete applicable indirect assessment
- Complete the report and corresponding Behavior Intervention Plan (as appropriate)

Functions of Behavior = Determine Why It Occurs

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



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

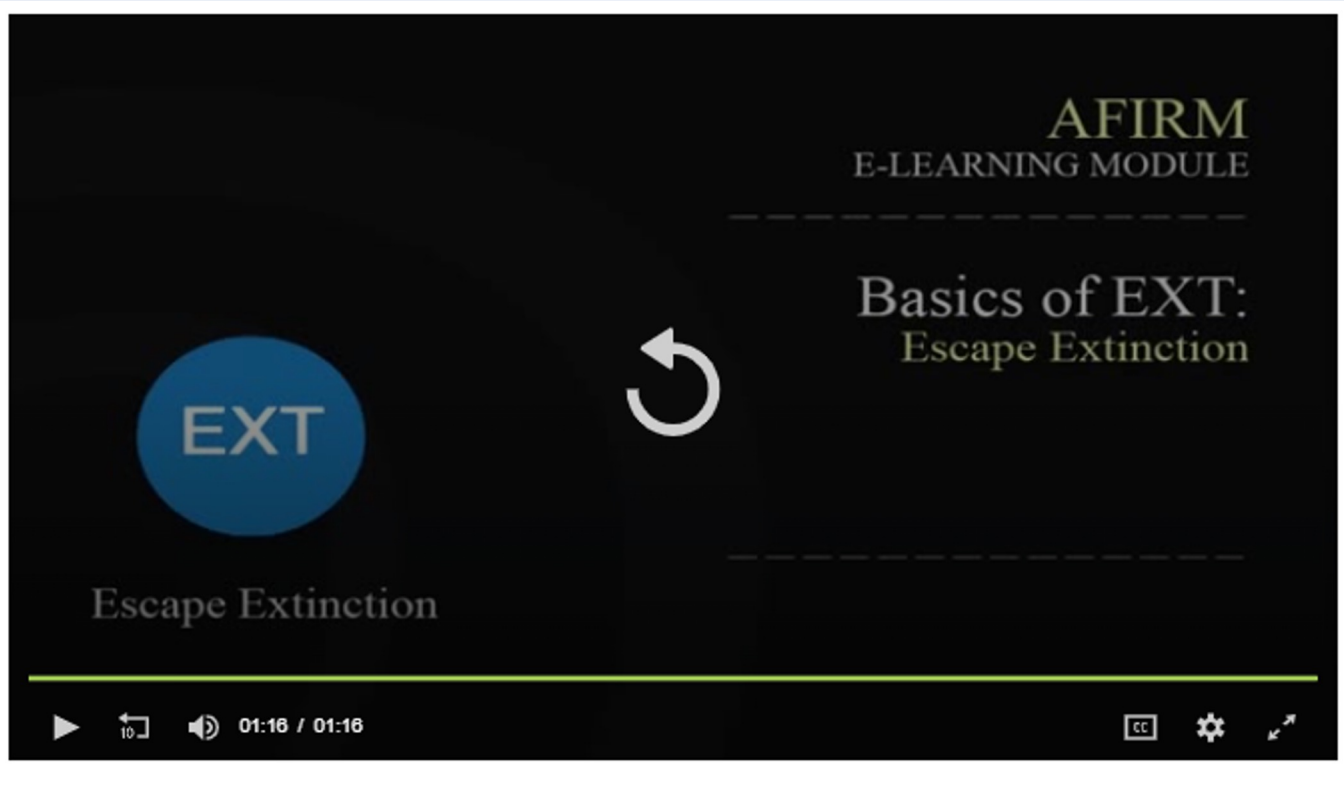
Withhold the Maintaining Consequence

Attention/Interactions	Planned Ignoring (Remove attention)
Access to tangible or Activity	Deny Access (Remove/Prevent access)
Escape	Escape Extinction (Prevent Escape)
Sensory/Automatic Reinforcement	Sensory Extinction (Prevent or Block Sensory Feedback)



AFIRM

Autism Focused Intervention
Resources and Modules



AFIRM
E-LEARNING MODULE

Basics of EXT:
Escape Extinction

EXT

Escape Extinction

01:16 / 01:16

Considerations When Using EXT

Question	Consideration
<p>Is the behavior to be extinguished one that is likely to be imitated by other learners in the class?</p>	<p>When an extinction procedure is implemented, the behavior will usually get worse before it gets better. In cases where the behavior is imitated by others, this may mean that others will engage in the behavior more frequently as well, thus intensifying the situation.</p>
<p>Does the student engage in self-injurious, destructive, or aggressive behavior when frustrated or angry?</p>	<p>Extinction, particularly when used alone, is not recommended in instances where the learner may engage in behavior that is harmful to self or others.</p>
<p>Are there times when it will not be feasible to withhold the maintaining consequence for the behavior?</p>	<p>For extinction to be effective, it is imperative that reinforcement (i.e., the consequence maintaining the behavior) be withheld at all times.</p>
<p>Are there people in the learner's environment who are not willing to implement extinction?</p>	<p>Because reinforcement needs to be withheld at all times, this also means that it needs to be withheld from every person in the learner's environment.</p>

Replacement Behavior

- What replacement behavior serves the same function as the interfering behavior?
- Does the replacement behavior match the function?
- What prompt level is needed to teach the replacement skill?
- What other EBPs might be used to teach the replacement skill?

Examples of Replacement Behaviors

Behavior	Function of the Behavior	Possible Replacement Behavior
Kicking and screaming when given a writing assignment	Escape	Asking for a break
Yelling out answers in class to gain attention from the teacher	Access to attention	Raising hand to speak or asking for attention
Hitting a student who is using the computer in order to gain access to the computer	Access to an activity	Asking for a turn on the computer
Whistling because the student likes the sound	Sensory/Automatic reinforcement	Listening to a recorded tape of a person whistling




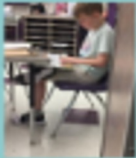
Practice with Feedback



Select the scenario that most closely matches your content:

- Identify to extinction procedure that could work given the function of the behavior
- Discuss any considerations for using EXT given the description of the context
- Identify a replacement behavior/skill

Let's Practice!

Functional Behavior Assessment	Antecedent	Behavior	Consequence	Function	Maintaining Consequence	Extinction Procedure
<p>Joseph</p> 	Joseph is given a non-preferred assignment.	Joseph throws the paper on the ground and kicks and screams.	Joseph is allowed to go to the safe zone in the classroom for a break.	Escape	Being allowed to escape from work.	?
<p>Leanne</p> 	Leanne is working alone while the teacher is providing one-on-one help to another student.	Leanne runs out of the classroom.	Teacher chases Leanne, asks her why she ran off, and leads her back to the classroom by the hand.	Attention	Providing attention to the learner.	?
<p>Bradley</p> 	A peer is playing with a toy that Bradley wants.	Bradley hits the peer.	The peer starts crying and drops the toy. Then Bradley picks up the toy and starts playing with it.	Access to Tangible	Allowing the learner to gain access to the toy.	?
<p>Aiden</p> 	No specific antecedents. The behavior occurs in many different situations.	Aiden hums various tunes.	Aiden enjoys the sound of his humming. No other consequences present.	Sensory/ Automatic Reinforcement	The sound of the humming.	?

Variables that can influence EXT

- Reinforcement Schedule (how often they are currently contacting reinforcement)
- Reinforcement History (how long this has been occurring)
- Extinction History (has extinction been implemented before)
- Response History (what has the response been to previous intervention(s))

What is Your “Extinction Burst” Plan?

It’s important to create a plan to address potential effects of implementing EXT.

- “Extinction Burst” is an increase in both frequency and intensity of responding when reinforcement is removed
 - Potential aggressive behaviors towards self or others
 - Spontaneous recovery of previous behaviors
- Do staff have proper crisis response training?

Implementing EXT

- Consistently withhold reinforcers & maintain consequences
- Expect an extinction burst and plan for it
- Prompt and reinforce use of replacement behavior
- Gradually fade prompts

Prompt and Reinforce Replacement Behavior (Attention/Interactions)

Interfering Behavior	EXT Procedure	Prompting Replacement Behavior	Reinforcing Replacement Behavior
Screams when direct attention is not given	Ignore screaming	Point to a visual of a person raising their hand	Provide attention contingent upon them raising their hand

Prompt and Reinforce Replacement Behavior (Escape)

Interfering Behavior	EXT Procedure	Prompting Replacement Behavior	Reinforcing Replacement Behavior
Learner throws book across room when asked to read	Give book back and ask them it's time to read	Use hand over hand prompting to teach learner to hand over a "break" card	Provide a break contingent upon them handing you the "break" card

Prompt and Reinforce Replacement Behavior (Access)

Interfering Behavior	EXT Procedure	Prompting Replacement Behavior	Reinforcing Replacement Behavior
Learner runs out the door, to swing on the playground swing	Block access to door and place self in front of door so they are not able to run outside	Model how to request a swing appropriately (e.g., vocally, via an icon, or SGD)	Provide an opportunity to swing contingent upon appropriate requesting

Prompt and Reinforce Replacement Behavior (Sensory/Automatic)

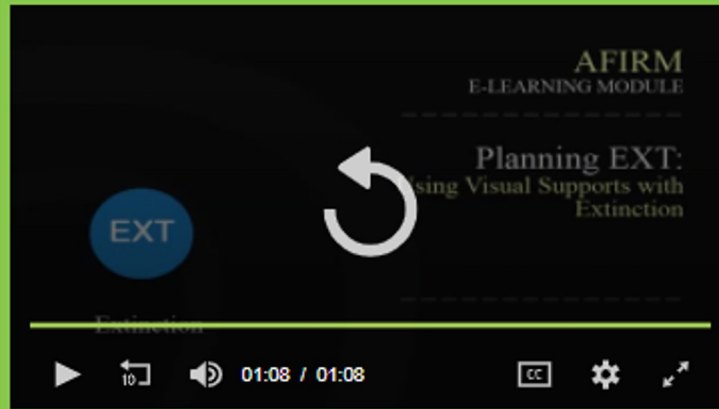
Interfering Behavior	EXT Procedure	Prompting Replacement Behavior	Reinforcing Replacement Behavior
Learner spins around room, tripping others in the process	Physically block from spinning and redirect them to their desk	Use hand over hand prompting to teach the learner to hand you an icon of the “spin chair”	Allow the learner access to the spin chair contingent upon them handing you the icon



Autism Focused Intervention Resources and Modules



Video Story: Using VS with EXT



▶ Video Transcript

Key Points

- Notice how the learner in the blue shirt shouts out questions without permission
- Watch how the teacher uses posted classroom rules as a visual support to remind the learner to engage in appropriate behavior

Prompt Fading

- Gradually fade prompts as learner displays skill acquisition
- Utilize the least intrusive on your prompt hierarchy
 1. Hierarchy can look different based on learner's function of their behavior(s)
 2. For some skills a hand over hand prompt may be more intrusive vs. a vocal prompt may be

Monitor Student Response to EXT

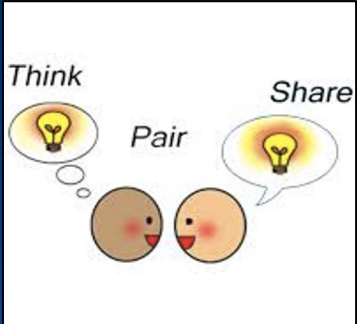
Date	Frequency	Duration	Intensity			Withheld R+	RB	Prompt Level				
			3	2	1	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
			3	2	1	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
			3	2	1	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
			3	2	1	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
			3	2	1	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
			3	2	1	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
			3	2	1	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
			3	2	1	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
			3	2	1	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I

Prompt Key:

V = Verbal Prompt; G = Gestural Prompt; M = Model; P = Physical Prompt; I = Independently

Intensity Scale Key:

- 3 = behavior is so severe that it significantly interferes with teaching and learning; the teacher is unable to deliver instruction due to the behavior and/or the behavior results in harm to self or others
- 2 = the behavior is distracting to others but the teacher is still able to deliver instruction
- 1 = the behavior has a minimal effect on learning and isn't distracting to others



Would You Continue EXT?

Date	Frequency	Duration	Intensity			Withheld R+	RB	Prompt Level				
3-28	✓	12 m & 31 sec	3	2	1	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
3-28	✓	11 m & 15 sec	3	2	1	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
3-29	✓	9 m & 45 sec	3	2	1	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
3-29	✓	8 m & 44 sec	3	2	1	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
3-29	✓	7 m & 21 sec	3	2	1	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
3-30	✓	6 m & 56 sec	3	2	1	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
3-30	✓	3 m & 38 sec	3	2	1	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
3-30	✓	39 sec	3	2	1	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I
3-30	✓	15 sec	3	2	1	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes	P	M	V	G	I

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V = Verbal Prompt; G = Gestural Prompt; M = Model; P = Physical Prompt; I = Independently

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Spontaneous Recovery



- Resurgence of an interfering behavior after it has decreased or stopped occurring all together
- “Last ditch” effort to see if engaging in the behavior will result in reinforcement
- Frequency, Intensity, and duration are typically much lower
- If it does occur, it's critical to continue the extinction implementation plan of withholding reinforcement when interfering behavior occurs

Troubleshooting Tips

- Is behavior well defined?
- Is behavior measurable and observable?
- Did FBA indicate all functions?
- Are the EXT strategies addressing the function?
- Are team members or peers withholding reinforcement for interfering behaviors?
- Are team members providing the learner with reinforcement for using replacement behaviors
- Does the function of the replacement behavior match the function of the interfering behavior?

What's Next

Extinction (EXT)
---Implementation Checklist---

Before you start:

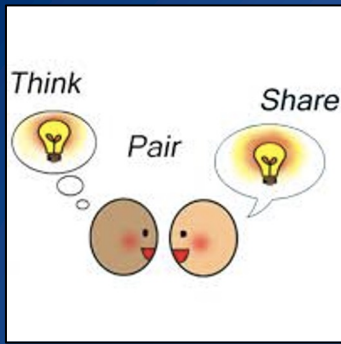
Have you...

- 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.

Observation	1	2	3	4
Date				
Observer's Initials				
Step 1: Planning				
1.1 Conduct a functional behavior assessment				
1.2 Determine if EXT is appropriate				
1.3 Select an appropriate replacement behavior				
1.4 Select prompt for the replacement behavior				
1.5 Identify additional evidence-based practices				
1.6 Identify variables that may affect EXT				
1.7 Create and have a crisis plan in place in the event of learner aggression				
1.8 Identify and train team members and others				
Step 2: Using				
2.1 Describe the plan to the learner, if appropriate				
2.2 Consistently withhold reinforcers and maintaining consequences				
2.3 Prompt and reinforce use of the replacement behavior				
2.4 Gradually fade prompts				
2.5 Expect extinction burst, but do not reinforce them				
Step 3: Monitoring				
3.1 Collect and analyze data on interfering behavior and prompting				
3.2 Look for signs of spontaneous recovery				
3.3 Continue to reinforce use of the replacement behavior				
3.4 Determine next steps based on learner progress				

AFIRM Autism Focused Intervention Resources and Modules



My Takeaways

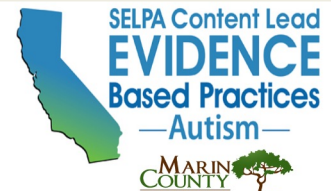
1. What are 4 things you remember from today's training?
1. What are 2 things you see yourself doing?
1. What is the 1 thing you can implement tomorrow?

After the Training...

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



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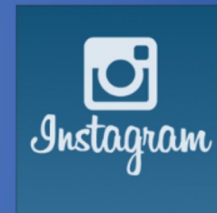




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