# AFIRM
## Autism Focused Intervention Resources & Modules

This overview brief will support your use of the evidence-based practice: Scripting.

# Scripting (SC)
# ---EBP Brief Packet---

## Components of the EBP Brief Packet...

This evidence-based practice overview on scripting includes the following components:

1. **Overview:** A quick summary of salient features of the practice, including what it is, who it can be used with, what skills it has been used with, and settings for instruction.
2. **Evidence-base:** The *SC Evidence-base* details the NPDC criteria for inclusion as an evidence-based practice and the specific studies that meet the criteria for this practice.
3. **Step-by-Step Guide:** Use the *SC Step-by-Step Practice Guide* as an outline for how to plan for, use, and monitor SC. Each step includes a brief description as a helpful reminder while learning the process.
4. **Implementation Checklist:** Use the *SC Implementation Checklist* to determine if the practice is being implemented as intended.
5. **Data Collection Sheets:** Use the data collection sheets as a method to collect and analyze data to determine if progress is being made for a learner with ASD.
6. **Tip Sheet for Professionals:** Use the *SC Tip Sheet for Professionals* as a supplemental resource to help provide basic information about the practice to professionals working with the learner with ASD.
7. **Parent Guide:** Use the *SC Parent Guide* to help parents or family members understand basic information about the practice being used with their child.
8. **Additional Resources:** Use the *Additional Resources* to learn more about the practice.
9. **CEC Standards:** A list of *CEC Standards* that apply specifically to SC.
10. **Module References:** A list of numerical *References* utilized for the SC module.

## What Is Scripting?

A hallmark of ASD is difficulties with social communication, and some learners with ASD experience additional deficits in expressive and/or receptive language that impair their ability to interact with others. However, a strength observed in many learners with ASD is responding to visual cues and structure.

The use of scripts as an intervention capitalizes upon the strengths of learners with ASD by providing specific, appropriate models for language and/or social behavior in a structured way that will support the learner in engaging in a communicative interaction with a partner.

## Evidence-base

Scripting meets the evidence-based practice criteria set by NPDC with 10 single case design studies. The practice has been effective with learners in preschool (3-5 years) to high school learners (15-22 years). Evidence-based practices (EBP) and studies included in the 2014 EBP report detailed how scripting can be used effectively to address: social, communication, behavior, school-readiness, play, vocational, and academic outcomes.

## How Is SC Being Used?

Scripting 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 scripting in the home.

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# ---Evidence-base for Scripting---

The National Professional Development Center on ASD has adopted the following criteria to determine if a practice is evidence-based. The EBP Report provides more information about the review process (Wong et al., 2014).

Efficacy must be established through high quality, peer-reviewed research in scientific journals using:

- randomized or quasi-experimental design studies (two high quality experimental or quasi-experimental group design studies),
- single-subject design studies (three different investigators or research groups must have conducted five high quality single subject design studies), or
- combination of evidence [one high quality randomized or quasi-experimental group design study and three high quality single subject design studies conducted by at least three different investigators or research groups (across the group and single subject design studies)].

## --OVERVIEW--

Scripting is a visual or auditory cue that supports learners to initiate or sustain communication with others. Scripting meets the evidence-based practice criteria with 8 single case design studies and 1 group design study. The practice has been effective with learners in preschool (3-5 years) to high school learners (15-22 years). Studies included in the 2014 EBP report detailed how scripting can be used effectively to address: social, communication, joint attention, school readiness, play, cognitive, and vocational outcomes.

In the table below, the outcomes identified by the evidence base are shown by age of participants.

| Early Intervention (0-2) | Preschool (3-5) | Elementary (6-11) | Middle (12-14) | High (15-22) |
|---|---|---|---|---|
| No studies | Social | Social | Social | Social |
| | Communication | Communication | Communication | Communication |
| | Joint Attention | | | |
| | School Readiness | | | |
| | Play | Play | | |
| | Cognitive | | | |
| | | Vocational | | |

## Early intervention (0-2 years)

No studies

## Preschool (3-5 years)

Goldsmith, T. R., LeBlanc, L. A., & Sautter, R. A. (2007). Teaching intraverbal behavior to children with autism. *Research in Autism Spectrum Disorders, 1*(1), 1-13.

MacDuff, J. L., Ledo, R., McClannahan, L. E., & Krantz, P. J. (2007). Using scripts and script-fading procedures to promote bids for joint attention by young children with autism. *Research in Autism Spectrum Disorders, 1*(4), 281-290. doi: 10.1016/j.rasd.2006.11.003

*Murdock, L. C., & Hobbs, J. Q. (2011). Picture me playing: increasing pretend play dialogue of children with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 41*(7), 870-878. doi: 10.1007/s10803-010-1108-6

## Elementary (6-11 years)

*Brown, J. L., Krantz, P. J., McClannahan, L. E., & Poulson, C. L. (2008). Using script fading to promote natural environment stimulus control of verbal interactions among youths with autism. *Research in Autism Spectrum Disorders, 2*(3), 480-497. doi: 10.1016/j.rasd.2007.08.006

Charlop-Christy, M. H., & Kelso, S. E. (2003). Teaching children with autism conversational speech using a cue card/written script program. *Education and Treatment of Children, 26*(2), 108-27.

*Ganz, J. B., Kaylor, M., Bourgeois, B., & Hadden, K. (2008). The impact of social scripts and visual cues on verbal communication in three children with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities, 23*(2), 79-94. doi: 10.1177/1088357607311447

*Krantz, P. J., & McClannahan, L. E. (1993). Teaching children with autism to initiate to peers: Effects of a script - fading procedure. *Journal of Applied Behavior Analysis, 26*(1), 121-132.

*Murdock, L. C., & Hobbs, J. Q. (2011). Picture me playing: increasing pretend play dialogue of children with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 41*(7), 870-878. doi: 10.1007/s10803-010-1108-6

Stevenson, C. L., Krantz, P. J., & McClannahan, L. E. (2000). Social interaction skills for children with autism: a script - fading procedure for nonreaders. *Behavioral Interventions, 15*(1), 1-20. doi: 10.1002/(SICI)1099-078X(200001/03)15:1<1::AID-BIN41>3.0.CO;2-V

### Middle (12-14 years)

*Brown, J. L., Krantz, P. J., McClannahan, L. E., & Poulson, C. L. (2008). Using script fading to promote natural environment stimulus control of verbal interactions among youths with autism. *Research in Autism Spectrum Disorders, 2*(3), 480-497. doi: 10.1016/j.rasd.2007.08.006

Dotto-Fojut, K. M., Reeve, K. F., Townsend, D. B., & Progar, P. R. (2011). Teaching adolescents with autism to describe a problem and request assistance during simulated vocational tasks. *Research in Autism Spectrum Disorders, 5*(2), 826-833. doi: 10.1016/j.rasd.2010.09.012

*Ganz, J. B., Kaylor, M., Bourgeois, B., & Hadden, K. (2008). The impact of social scripts and visual cues on verbal communication in three children with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities, 23*(2), 79-94. doi: 10.1177/1088357607311447

*Krantz, P. J., & McClannahan, L. E. (1993). Teaching children with autism to initiate to peers: Effects of a script - fading procedure. *Journal of Applied Behavior Analysis, 26*(1), 121-132.

*Stevenson, C. L., Krantz, P. J., & McClannahan, L. E. (2000). Social interaction skills for children with autism: a script - fading procedure for nonreaders. *Behavioral Interventions, 15*(1), 1-20. doi: 10.1002/(SICI)1099-078X(200001/03)15:1<1::AID-BIN41>3.0.CO;2-V

### High (15-22 years)

*Stevenson, C. L., Krantz, P. J., & McClannahan, L. E. (2000). Social interaction skills for children with autism: a script - fading procedure for nonreaders. *Behavioral Interventions, 15*(1), 1-20. doi: 10.1002/(SICI)1099-078X(200001/03)15:1<1::AID-BIN41>3.0.CO;2-V

* Research which included participants in multiple age ranges.
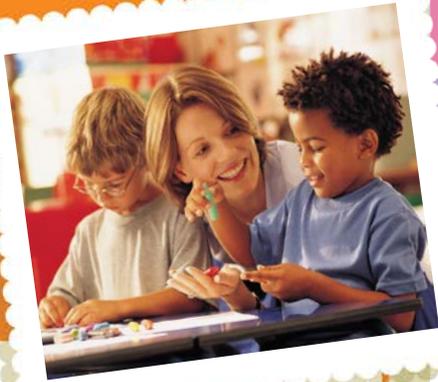
# Scripting(SC)
## ---Step-by-Step Guide---

This practice guide outlines how to plan for, use, and monitor the practice of scripting.

Keep in mind that SC can be used to help learners with ASD to use and generalize communication skills.

## BEFORE YOU START...

Each of the following points is important to address so that you can be sure the selected EBP is likely to address the learning needs of your student.

Have you found out more information about. . .?

- ☐ 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," review the process of how to select an EBP.

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# Now you are ready to start...

## Step 1: SC Planning

The planning step explains initials steps and considerations involved when developing a script for a learner.

### 1.1 Determine if the learner has the prerequisite skills for a script intervention

Before selecting a script as an intervention for a learner, it is important to identify if the learner has the prerequisite verbal and/or motor imitation skills in order to learn and use the script.

### 1.2 Determine the type and length of the script

The learner's expressive and receptive skills must be considered to ensure that the learner will understand the script in the form it is presented and taught (for example, written form, verbal form, with or without picture cues, with or without reading it aloud) and will be able to eventually produce the communicative behavior independently.

Note:  Consider consulting with a speech language pathologist to ensure that the script appropriately addresses and supports the language skills of the learner.

📄  *Use the **SC Planning Worksheet** for considerations when using scripting.*

### 1.3 Develop the script

Using what is known about the learner's communication skills, a script can be developed to support the learner in interacting with another person.  The script may include words/cues for the learner or words/cues for both the learner and the communication partner.

### 1.4 Identify additional evidence-based practices

The two evidence-based practices that are most important to consider in a script intervention are:
(1)  reinforcement of the use of the script, and
(2)  the use of visual supports as needed to cue the learner to use the script or support the learner while using the script

### 1.5 Gather and organize supporting materials

This process may include gathering or making script-specific materials as well as gathering any other supporting materials (such as toys, visual timers, etc.) that may be needed relevant to the communicative interaction.

## Step 1: SC Planning (continued)

### 1.6  Teach the learner prerequisite skills

Prerequisite skills that might be targeted prior to a script intervention include specific vocabulary used in the context of the script and other interaction skills related to the social communication context of the script (such as gaining the attention of the communication partner, orienting to the communication partner, etc.).

### 1.7  Identify and train communication partners

Any people who will be interacting with the learner need to understand what to expect in advance.  They may need to be familiar with the script and anticipated responses, and they may also need to understand any communication differences that the learner may display that could be unusual or unexpected.

## Step 2: Using SC

This section describes the process of implementing the script that was developed, including teaching, reinforcing, and fading prompts and the script itself.

### 2.1  Teach script to learner

The teaching process may vary based on the skills of the learner and the format of the script, but will generally consist of the following:
- Initial instruction in script elements
- Prompting and guidance, starting at a high level, and gradually fading
- Reinforcement of use of the script

Other strategies that may be used in the teaching process include modeling and role-play.  The script may be taught initially in a separate teaching area or may be taught in the context of the intended communicative interaction.

### 2.2  Use script with identified communication partners

If the script is taught in a separate setting and then introduced with the intended communication partner, the teaching process will need to specifically target this step.  Strategies may include holding up the script behind the communication partner, prompting use of the script physically and/or verbally, and modeling appropriate responses.

### 2.3  Fade prompts, if any, needed to read the script

Prompting of use of the script should gradually be faded until the learner is able to use the script independently.

## Step 2: SC Using (continued)

### 2.4 Fade script

This procedure will vary based on the format of the script, but usually should involve a gradual fading of the content of the script. For example, a script using full written sentences might be faded by gradually removing a word or two at a time until all that is left is the paper or card on which the script was originally written; this remaining visual cue should also be faded until the learner is independently producing the content from the script without any cues.

### 2.5 Test for generalization and revisit script as needed

The goal of a script intervention is not actually to promote use of the script, but instead to increase the targeted communication skills of the learner. Guiding questions to consider regarding generalization include:
- Is the learner initiating with a variety of peers?
- Is the learner initiating with peers in a variety of settings or activities?
- Is the learner using any topics or language to initiate with peers that is different than what was originally taught in the script?

If prompting of use and the script has been faded but a learner has not generalized the targeted skill, then it might be valuable to re-introduce the script in the new context, with adaptations as needed, to support generalization.

## Step 3: Monitoring SC

The following process describes how the use of the script as well as target skills can be monitored and how this data can be used to guide further support of the learner.

### 3.1  Collect data on target behaviors

Data collection may initially focus on use of the script, but ultimately should shift to the skill that the script intervention is intended to target, such as initiating interactions, making comments, asking a peer relevant questions, engaging in sociodramatic play, etc.

📄  *Use the SC Training Data Form to collect data on script training.*

📄  *Use the SC Target Skill Data Form to collect data on the target skill.*

## Step 3: Monitoring SC (continued)

### 3.2  Determine if the script needs to be retaught or faded based on collected data

Review progress monitoring data to determine if the learner is generalizing the use of the script, and most importantly, the target skill, across communication partners and settings. If the learner is using the script effectively in one context but has not generalized use of the script, then the script may need to be re-introduced and subsequently faded in the new context.

### 3.3  Determine next steps based on learner progress

The data that is collected regarding the learner's use of the target skill can provide a helpful tool for determining next steps based on whether or not the learner is making progress.  Considerations may include data relevant to communication partners, settings, scripted responses, unscripted responses, inappropriate responses, and prompting.

Collecting data will help team members determine if a learner is making progress. If a learner is making progress based upon data collected, team members should continue to use scripting.
If the learner with ASD is not showing progress with scripting, ask yourself the following questions:
- Is the script developed for the learner's language level?
- Is the target skill measurable and observable?
- If needed, were additional evidence-based practices identified?
- Are the reinforcers appropriate for learner?
- Can the learner demonstrate needed perquisite skills?
- Is scripting used with fidelity (based on the implementation checklist)?

If these issues have been addressed and the learner with ASD continues to not show progress, consider selecting a different evidence-based practice to use with the learner.

# Scripting (SC)
## ---Implementation Checklist---

| Observation | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Date | | | | |
| Observer's Initials | | | | |
| **Step 1:  Planning** | | | | |
| 1.1  Determine the type and length of the script | | | | |
| 1.2  Develop the script | | | | |
| 1.3  Identify additional evidence-based practices | | | | |
| 1.4  Gather and organize supporting materials | | | | |
| 1.5  Teach the learner prerequisite skills | | | | |
| 1.6  Identify and train communication partners as appropriate | | | | |
| **Step 2:  Using** | | | | |
| 2.1  Teach script to learner | | | | |
| 2.2  Use script with identified communication partners | | | | |
| 2.3  Fade prompts, if any, needed to read the script | | | | |
| 2.4  Fade script | | | | |
| 2.5  Test for generalization and revisit script as needed | | | | |
| **Step 3:  Monitoring** | | | | |
| 3.1  Collect data on target behaviors | | | | |
| 3.2  Determine if the script needs to be retaught or faded based on collected data. | | | | |
| 3.3  Determine next steps based on learner progress | | | | |

**AFIRM** Autism Focused Intervention Resources and Modules

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Autism Focused Intervention Resources & Modules

# ---Guide to Fading a Script---

Once prompting to use the script is faded, the actual script itself can be faded. This procedure may vary based on the format of the script, but usually involves a process in which the words are gradually removed from scripted statements until no words are left (this is appropriate for a written or electronically programmed script).

**Fading Script Example:** *'How to Play with a Friend'*

'Can I play with you?'

'Can I play with

'Can I play

'Can I

'Can

# ---SC Training Data Collection---

Learner's Name: _____          Date/Time: _____

Observer(s): _____

Target Behavior(s): _____

_____

## Data Collection for Script Training:

Use this form when collecting data on script training. Remember to collect data on the script element completed correctly with prompts and without prompts.

| Script: | | |
|---|---|---|
| **Script Element** | **Response** | **Prompt Needed** |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

Response Key: + = performed correctly; - = performed incorrectly; 0 = no response

Prompt Key: FV = with Full Verbal; PV = with Partial Verbal; VC = with Visual Cue; PP = with Partial Physical; FP = Full Physical; I = Independently;

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# ---SC Data Collection---
# Target Skill

**Learner's Name:** _____    **Date/Time:** _____

**Observer(s):** _____

**Target Skill:** _____

_____

## Target Skill Data Collection:

The data collected could include a specification regarding if the behavior or language used by the learner is scripted.  It may also be important to reflect if the language or behavior is appropriate, as compared to language or behavior that may be off topic, inappropriate, or perseverative in nature.

| | Appropriate Interactions | | Inappropriate Interactions |
|---|---|---|---|
| | **Scripted responses** | **Unscripted responses** | |
| Date:<br>Time:<br>Setting:<br>Communication Partner(s): | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ |
| Date:<br>Time:<br>Setting:<br>Communication Partner(s): | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ |
| Date:<br>Time:<br>Setting:<br>Communication Partner(s): | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ |
| Date:<br>Time:<br>Setting:<br>Communication Partner(s): | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ |
| Date:<br>Time:<br>Setting:<br>Communication Partner(s): | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ | ☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐<br>☐☐☐☐☐ |

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# --- SC Considerations ---

Learner's Name: _____     Date/Time: _____

Observer(s): _____

Target Behavior: _____

_____

## Determine next steps based on learner's progress:

The data that is collected on the learner's use of the target skill may offer useful insights into next steps regarding further development and support of the learner. The following charts outlines some of the major considerations related to the collected data.

| Making Progress | Considerations |
|---|---|
| Setting | Consider expanding the learner's use of the skill into different settings. |
| Communication partner | Consider expanding the learner's use of the skill across different communication partners. |
| Scripted responses | Consider adapting the original script or using other teaching strategies (such as role-playing or modeling) in order to expand the learner's language or social behavior. |
| Unscripted responses | Determine if the learner is independently using scripted language/behavior as well as expanding language/behavior beyond the original script. If so, consider identifying other skills that might be taught using a script (as this intervention appears to have been effective for this learner). |
| Inappropriate responses | Determine if the learner is independently using scripted and unscripted, appropriate language/behavior. If so, consider identifying other skills that might be taught using a script (as this intervention appears to have been effective for this learner). |
| Prompting | Continue fading prompting until the learner is independently using the skill. |

## Not Making Progress Considerations

| | |
|---|---|
| Setting | Consider re-introducing the script in the specific setting in which the learner is struggling and subsequently fading the script. |
| Communication partner | Consider re-introducing the script with the communication partner and subsequently fading the script; consider whether the communication partner needs any additional skills or supports. |
| Scripted responses | Consider whether or not the script needs to be re-taught; determine whether or not the learner did not have the prerequisite skills such as knowledge of the vocabulary used in the script. Revisit whether or not the script is appropriate to the expressive and receptive language needs of the learner. Consider whether another intervention is needed to support the language needs of the learner. |
| Unscripted responses | Consider adapting the original script or using other teaching strategies (such as role-playing or modeling) in order to expand the learner's language or social behavior beyond the original script. |
| Inappropriate responses | Consider using a visual cue to decrease inappropriate responses; revisit the reinforcement plan for the learner's use of skills to determine whether any changes need to be made to assist in both increasing appropriate and decreasing inappropriate target behaviors. Examine the kinds of inappropriate responses to look for patterns in order to develop an appropriately targeted intervention – for example, is the learner using too much perseverative speech? Is the language off topic? Is the behavior socially inappropriate? Specific skills related to the inappropriate behavior may need to be taught. |
| Prompting | Develop a plan for fading prompting; make sure a plan for reinforcing independent use of the skill is in place. |

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

# Scripting (SC)
# ---Tip Sheet for Professionals---

## Scripting...
- Is an evidence-based practice for children and youth with autism spectrum disorder (ASD) from 3-22 years old that can be implemented in multiple settings.
- Includes supports for a learner that provide a model for appropriate communication. A script might consist of words and/or picture cues and could be presented in written form, read aloud to a learner, or recorded on an electronic device. The script guides the learner to interact with and respond to a communication partner.

## Why Use?
- Scripts provide a specific model for language or social behavior that will enable the learner to interact effectively with another person.  Scripts can also be a low-cost intervention that does not take long to create. Once learned, scripting can be used to address a variety of skills or behaviors, such as play skills, conversation skills, and describing a problem or asking for help.

## Outcomes
- The evidence-base for SC supports the use of this practice to address the outcomes below:

| Early Intervention (0-2) | Preschool (3-5) | Elementary (6-11) | Middle (12-14) | High (15-22) |
|---|---|---|---|---|
| No studies | Social | Social | Social | Social |
| | Communication | Communication | Communication | Communication |
| | Joint Attention | | | |
| | School-Readiness | | | |
| | Play | Play | | |
| | Cognitive | | | |
| | | Vocational | | |

## TIPS:

- While it is expected that a learner will have social communication deficits, the learner *does* need to have the prerequisite verbal and/or motor imitation skills to learn and use the script.
- Gradual fading of the prompting to use the script and the script itself, are both important for learners to be able to use the script independently and to potentially generalize and expand their repertoire of communication skills.
- Remember:  It is not the use of the script that is the goal, but the targeted communication skill.

## Scripting (SC)
## ---Tip Sheet for Professionals---

### Scripting
### SC

This tip sheet was designed as a supplemental resource to help provide basic information about the practice.

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

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## STEPS FOR IMPLEMENTING

### 1. Plan

- Determine if the learner has the prerequisite skills for a script intervention
- Determine the type and length of the script
- Develop the script
- Identify additional evidence-based practices
- Gather and organize supporting materials
- Teach the learner prerequisite skills
- Identify and train communication partners

### 2. Use

- Teach script to learner
- Use script with identified communication partners
- Fade prompts, if any, needed to read the script
- Fade script
- Test for generalization and revisit script as needed

### 3. Monitor

- Collect data on target behaviors
- Determine if the script needs to be retaught or faded based on collected data.
- Determine next steps based on learner progress

# AFIRM

**Autism Focused Intervention Resources & Modules**

# Scripting (SC)
# ---Parent's Guide---

This introduction provides basic information about scripting.

This parent introduction to SC was designed as a supplemental resource to help answer basic questions about this practice.

To find out more about how SC is used with your child, speak with:

_____

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

## What is SC?

- Scripts are supports provided to a learner that provide a model for appropriate communication. The form of a script intervention varies based on the language skills of the learner. A script might consist of words and/or picture cues and could be presented in written form, read aloud to a learner, or recorded on an electronic device.  The script guides the learner to interact with and respond to another person.
- Scripting is an evidence-based practice for children and youth with autism spectrum disorder (ASD) from 3 to 22 years old.

## Why use SC with my child?

- Scripting can be used to model language skills or social behavior for play, conversation, and asking for help.
- Research studies have shown that scripting has been used effectively with learners in preschool, elementary school, middle school, and high school to address social, communication, joint attention, school readiness, play, cognitive, and vocational outcomes.

## What activities can I do at home?

- Notice when your child has difficulty initiating or completing a task. Think about what type of script could help your child.
- Model the language that you would like your child to use in certain situations in a way that your child might be able to copy and eventually use independently.
- Share your scripts with your child's teachers. If a therapist or teacher is using a script to help your child communicate about something at school or in a clinic setting, ask for a copy that you can use or adapt to use with your child at home.

# ---Additional Resources---

## Articles:

Akers, J. S., Pyle, N., Higbee, T. S., Pyle, D., & Gerencser, K. R. (2016). A synthesis of script fading effects with individuals with autism spectrum disorder: A 20-year review. *Review Journal of Autism and Developmental Disorders, 3*(1), 1-17. doi:10.1007/s40489-015-0062-9

Eliçin, Ö., & Avcioglu, H. (2014). Effectiveness of teaching via scripts and script fading methods for children with autism in acquiring the skill of discriminating emotions. *Egitim Ve Bilim, 39*(171)

Ganz, J. B., & Flores, M. M. (2010). Implementing visual cues for young children with autism spectrum disorders and their classmates. *NAEYC: Young Children, May 2010*, 78-83.

Garcia-Albea, E., Reeve, S. A., Brothers, K. J., & Reeve, K. F. (2014). Using audio script fading and multiple-exemplar training to increase vocal interactions in children with autism: Script fading and vocal interactions. *Journal of Applied Behavior Analysis, 47*(2), 325-343. doi:10.1002/jaba.125

Groskreutz, M. P., Peters, A., Groskreutz, N. C., & Higbee, T. S. (2015). Increasing play - based commenting in children with autism spectrum disorder using a novel script - frame procedure. *Journal of Applied Behavior Analysis, 48*(2), 442-447. doi:10.1002/jaba.194

Hilvert, E., Davidson, D., & Gamez, P. (2016). Examination of script and non-script based narrative retellings in children with autism spectrum disorders. *Research in Autism Spectrum Disorders*, 29-30, 79-92. doi:10.1016/j.rasd.2016.06.002

Johnson, N. L., & Bree, O. A. (2014). Social script iPad application versus usual care before undergoing medical imaging: Two case studies of children with autism. *Journal of Radiology Nursing, 33*(3), 121-126. doi:10.1016/j.jradnu.2014.04.001

Johnson, N., Bree, O., Lalley, E., Rettler, K., Grande, P., Gani, M., & Ahamed, S. (2014). Effect of a social script iPad application for children with autism going to imaging. *Journal of Pediatric Nursing-Nursing Care of Children & Families, 29*(6), 651-659. doi:10.1016/j.pedn.2014.04.007

**AFIRM**

Autism Focused Intervention Resources & Modules

## Check out these resources to support your use of scripting.

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

**Articles (continued):**

Ledbetter-Cho, K., Lang, R., Davenport, K., Moore, M., Lee, A., Howell, A., . . . O'Reilly, M. (2015). Effects of script training on the peer-to-peer communication of children with autism spectrum disorder: Effects of script training. *Journal of Applied Behavior Analysis, 48*(4), 785-799. doi:10.1002/jaba.240

Lee, R., & Sturmey, P. (2014). The effects of script-fading and a lag-1 schedule on varied social responding in children with autism. *Research in Autism Spectrum Disorders, 8*(4), 440-448. doi:10.1016/j.rasd.2014.01.003

Pollard, J. S., Betz, A. M., & Higbee, T. S. (2012). Script fading to promote unscripted bids for joint attention in children with autism. *Journal of Applied Behavior Analysis, 45*(2), 387-393. doi:10.1901/jaba.2012.45-387

Sellers, T. P., Kelley, K., Higbee, T. S., & Wolfe, K. (2016;2015;). Effects of simultaneous script training on use of varied mand frames by preschoolers with autism. *The Analysis of Verbal Behavior, 32*(1), 15-26. doi:10.1007/s40616-015-0049-8

Sng, C. Y., Carter, M., & Stephenson, J. (2014). A review of video modeling and scripts in teaching conversational skills to individuals with autism spectrum disorders. *Review Journal of Autism and Developmental Disorders, 1*(2), 110-123. doi:10.1007/s40489-013-0010-5

Wichnick-Gillis, A. M., Vener, S. M., & Poulson, C. L. (2016). The effect of a script-fading procedure on social interactions among young children with autism. *Research in Autism Spectrum Disorders, 26*, 1-9. doi:10.1016/j.rasd.2016.03.004

**Apps:**

*QuickCues* by Fraser ($4.99 for each additional in-app purchase)

**Books:**

Ganz, J. B. (2006). *How to write and implement social scripts*. Austin, Tex.: PRO-ED.

Hodgdon, L., Harris, R., Griffin, S., & Butler, R. (2013). *Teach me with pictures: 40 fun picture scripts to develop play and communication skills in children on the autism spectrum* (1st ed.). Jessica Kingsley Publishers.

McClannahan, L. E. (2005). *Teaching conversation to children with autism: Scripts and script fading* (1st ed.). Bethesda, MD: Woodbine House.

Phillips, N., & Beavan, L. (2012). *Teaching play to children with autism: Practical interventions using identiplay* (2nd ed.). SAGE Publication Ltd.

# Scripting CEC Standards

The CEC Standards that apply to all 27 evidence-based practices can be found on our website at: http://afirm.fpg.unc.edu/learn-afirm

Below are CEC Standards that apply specifically to Scripting (SC) module.

| Standard | Description |
|---|---|
| **Initial Preparation Standard 2: Learning Environments** | |
| ISCI 2  K5 | Social skills needed for educational and other environments |
| **Initial Preparation Standard 5: Instructional Planning & Strategies** | |
| ISCI 5  K3 | Augmentative and assistive communication strategies |
| ISCI 5  S13 | Use strategies to facilitate integration into various settings |
| ISCI 5  S17 | Use procedures to increase the individual's self-awareness, self-management, self-control, self-reliance, and self-esteem |
| ISCI 5  S19 | Use strategies to support and enhance communication skills of individuals with exceptionalities |
| DDA5 S2 | Implement instructional programs that promote effective communication skills using verbal and augmentative/alternative communication systems for individuals with developmental disabilities/autism spectrum disorders |
| DDA5 S15 | Use specialized instruction to enhance social participation across environments |

| Standard | Description |
|---|---|
| **Advanced Preparation Standard 3: Program, Services, and Outcomes** | |
| SEDAS3.K3 | Modify the verbal and non-verbal communication and instructional behavior in accord with the needs of individuals with developmental disabilities/autism spectrum disorder |
| SEDAS3.S7 | Design and implement instruction that promote effective communication and social skills for individuals with developmental disabilities/autism spectrum disorders |
| SEDAS3.S8 | Provide varied instruction and opportunity to learn play and leisure skills |

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

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3.  Krantz, P. J., & McClannahan, L. E. (1993). Teaching children with autism to initiate to peers: Effects of a script‐fading procedure. *Journal of Applied Behavior Analysis, 26*(1), 121-132.
4.  Stevenson, C. L., Krantz, P. J., & McClannahan, L. E. (2000). Social interaction skills for children with autism: a script‐fading procedure for nonreaders. *Behavioral Interventions, 15*(1), 1-20. doi: 10.1002/(SICI)1099-078X(200001/03)15:1<1::AID-BIN41>3.0.CO;2-V
5.  Dotto-Fojut, K. M., Reeve, K. F., Townsend, D. B., & Progar, P. R. (2011). Teaching adolescents with autism to describe a problem and request assistance during simulated vocational tasks. *Research in Autism Spectrum Disorders, 5*(2), 826-833. doi: 10.1016/j.rasd.2010.09.012
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10. Wong, C., Odom, S. L., Hume, K. Cox, A. W., Fettig, A., Kucharczyk, S., Schultz, T. R. (2014). Evidence-based practices for children, youth, and young adults with autism spectrum disorder. Chapel Hill: The University of North Carolina, Frank Porter Graham Child Development Institute, Autism Evidence-Based Practice Review Group.
    http://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.unc.edu/files/imce/documents/2014-EBP-Report.pdf