Purpose

The purpose of this systematic review was to summarize the quantity and quality of studies supporting the use of script training interventions with children with autism. In addition, this paper examined the potential of a body of literature that exclusively involved children with autism to inform clinical decisions about children who do not have autism.

Summary

Of the eight script training studies, six met the standard for acceptable quality. Script training interventions produced strong and meaningful improvements on outcomes such as social initiation, conversation turns, and unscripted statements. The overall strength of the script training literature was sufficient to warrant a recommendation for script interventions with children with autism.

Implications

The quality and quantity of script training studies are acceptable; therefore, using scripts as response prompts can be considered an empirically supported intervention. Although script training and script response prompts were developed specifically for children with autism, other children who have similar needs may benefit from this type of intervention. Practitioners will need to carefully consider specific client characteristics to determine if script prompts can be used effectively with other children.

Abstracted from

About the Author

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The Use of Scripts to Improve Conversational Independence of Children with Autism
By Trina D. Spencer

Introduction

Scripts are response prompts. They can be written (textual) or auditory phrases that children learn to read or imitate in a natural communication context. Scripts have been used to increase conversational exchanges (e.g., "I'm painting a rainbow. What are you painting?") and social initiations (e.g., "Come play with me"; Brown, Krantz, McClannahan & Poulson, 2007; Krantz & McClannahan, 1998). Script training is frequently accompanied by systematic fading of the scripts (e.g., cut from back to front in steps) so that children become less dependent on them to prompt social communication. Children learn to manage their own prompts, which prevents the disruption of and dependency on adult-prompts. Reasonably, the majority of the research has included only participants with autism with limited spontaneous social communication and prompt dependency.

Featured Review

Spencer and Slocum (2010) conducted a systematic review to investigate the study quality and effects of script training interventions with children with autism. They followed a three-step review process. After searching for relevant articles following specific guidelines for study inclusion, each of the eight script training studies was inspected for methodological quality (step 1). Because all studies involved single case research designs, quality indicators appropriate for those designs were used to code the presence or absence of each design feature for each study (Horner et al., 2005). Six of the eight studies met the acceptable standard and were examined for intervention effects (step 2). The percent of non-overlapping data (PND) method involves identifying the highest data point in baseline and calculating the percent of intervention data points that are higher (Mastropieri & Scruggs, 1985-1986). All six studies produced effects in the effective (70-90%) or very effective range (91-100% PND). In addition, strong effects were observed in maintenance and generalization con-

ditions. In step three, the acceptable studies were summarized according to the overall strength of the literature, which is based on a) the total number of studies (criterion = 5), b) total number of participants (criterion = 20), and c) number of researchers (criterion = 3). The script training research met all of the criteria, except the acceptable studies only included 18 total participants.

Implications for Practice

It is necessary to review a body of literature systematicall. A systematic review, as opposed to a narrative review, ensures that only trustworthy studies are used to inform important decisions. In step 1, the methodological rigor was evaluated and only a portion of the available studies was included in the subsequent steps. Conclusions were based on studies that incorporated strong designs and methodological features so that practitioners can be more confident of the results. Based on the review findings, practitioners can be assured that script training has sufficient evidence to support its use. When considering response prompting options to improve conversational independence of children with autism, script training is a viable intervention.

Best Available Evidence

In the featured review, there were a sufficient number of studies (6), with a sufficient number of researchers (4), and almost enough participants (18 when 20 was the criterion). Although technically, script training research did not meet the established threshold, it came close. Given the

other strengths of this literature and the large effects, it would be illogical to disregard the available evidence for such a minor limitation. Importantly, since the completion of the Spencer and Slocum (2010) review, a handful of other script training studies have been published (Vendora, Meunier, & Mackay, 2009; Wichnick, Vener, Keating, & Poulson, 2010; Wichnick, Vener, Pyrtek, & Poulson, 2010). These add to the strength of the available evidence, further substantiating the use of script training interventions with children with autism.

Professional Judgment, Client, and Context

The Spencer and Slocum (2010) article outlined some important steps that can assist clinicians when considering an intervention that has no direct evidentiary support with the population of interest. Specifically, characteristics of the child (e.g., able to read text scripts), the outcome of interest (e.g., spontaneous communication), and the ease of implementation may be as important to consider as a child's diagnosis. Whenever a practitioner selects an intervention for which the evidence does not match the specific context, he or she accepts some level of risk and is responsible for ensuring its effectiveness. Evidence-based practitioners employ regular progress monitoring to help reduce the risks of generalizing from the research base even when it closely matches the practical context. Frequent monitoring is essential when broad generalizations from research to the practice context are necessary.

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