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## Effect of Instructor Choice on Frequency of Prompt Delivery in Classrooms

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Effect of Instructor Choice on Frequency of Prompt Delivery in Classrooms

by

Rebecca J. Donnelly

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Science in Applied Behavior Analysis  
Department of Child and Family Studies  
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## **DEDICATION**

This thesis project is dedicated to my family. To my father who worked tirelessly to provide for us. To my mother who spent so many hours searching and driving to ABA services to improve my brothers and my family's quality of life. Finally, to my brother who introduced me to impact of Behavior Analysis, selfless love, and that disability does not mean inability. You inspire me. Thank you for everything, I owe who I am today to you.

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## **ABSTRACT**

Choice has been demonstrated to have positive effects on behavior like increasing task engagement, positive affect, and accuracy in the completion of tasks. However, effects of choice have been primarily observed with individuals receiving behavior analytic interventions. It is unknown whether choice of intervention modality would have similar positive effects on the implementer. Social scripts are a social skill intervention that provides a model of appropriate language through the presentation of antecedent stimuli that increase the likelihood of desired behavior in learners. Social script can be delivered in two different modalities, auditory and textual, which facilitate the choice for instructors for this study. The purpose of the study was to (a) evaluate the effects of multiple available intervention modalities on the frequency of implementation, (b) assess instructor preference of two social skill interventions, and (c) to determine the feasibility of those interventions. The results of this study indicate the multiple choices of modalities did not affect the frequency of implementation but did have an effect on instructor preference. Two instructors in this study showed a mixed preference until choice was available and their preference switched to auditory scripts. Overall, teachers in this study rated the social script intervention highly. There was a 9.2% increase in acceptability from pre- to post- test.

## **CHAPTER ONE:**

### **INTRODUCTION**

Individuals with disabilities often manifest social skill deficits at young ages that hinder their quality of life. Poor social skills are a prominent characteristic of Autism Spectrum Disorders (ASD; Center for Disease Control, 2016; Gresham, Sugai, & Horner, 2001). Social skill deficits could have potential negative impacts on social and academic achievement including lower self-esteem, or it could manifest as internalizing and externalizing behavior that may also increase the likelihood of achievement problems and probability of referrals for misconduct (Parker & Asher, 1987; Stone & La Greca, 1990). Social and emotional skills in childhood are predictors of positive outcomes during adulthood in several areas: education, employment, addiction, incarceration, and mental health (Jones, Greenberg, & Crowley, 2015). Thus, social skills are a reasonable target for intervention.

Social scripts are a social skill intervention that uses pre-scripted prompts to facilitate appropriate social interactions. Social Scripts provide a prompt for appropriate language through the presentation of antecedent stimuli that increase the likelihood of desired behavior in learners. The use of social scripts can improve the frequency and caliber of social interactions between a child and their peers and promote reciprocal social interactions and turn-taking behavior (Cowan & Allen, 2007; Stevenson et al., 2000).

Social Script can be delivered in two different modalities: auditory and textual. In the case of textual scripts, the student learns a question or phrase using a script delivered via textual stimuli in the environment. Initially, the student uses a prompt such as index card with the script

written on it, and then gradually this prompt is removed (e.g., opacity is lowered) until the student can use the script learned independently. In the case of auditory scripts, the student learns a question or phrase using a script delivered via auditory stimuli in the environment. Initially, the student uses a prompt, such as a recorded phrase on an audio device, and then gradually this prompt is removed (volume is lowered) until the student can use the script learned independently. Several studies have demonstrated the effectiveness of both textual (Brown et al., 2008; Charlop-Christy & Kelso, 2003; Krantz, & McClannahan, 1993; Krantz & McClannahan, 1998; Ledbetter-Cho et al., 2015; Sarokoff et al., 2001; Wichnick-Gillis et al., 2016); and auditory (Garcia-Albea et al., 2014; Gallant et al., 2017; Stevenson, Krantz, & McClannahan, 2000; Wichnick, Vener, Keating, & Poulson, 2010) social scripts within classroom settings. For example, the most recent evaluation of social scripts in a classroom environment was conducted by Gallant et al. (2017). In this study, they investigated the use of auditory social scripts or more specifically the location of auditory scripts in creating spontaneous and functional social communication for student's with ASD. The results of this study indicated that auditory scripts were quickly established as consistent prompts for phrases and the initiation of social interactions. The children in this study continued to begin social interactions during systematic decreases in the intensity of antecedents and consequents that occasioned the scripts (Gallant et al., 2017).

Choice has been demonstrated to have positive effects on behavior like increasing task engagement, positive affect, and accuracy in the completion of tasks (Cannella, O'Reilly, & Lancioni, 2005; Kern et al., 1998). However, effects of choice have been primarily observed with individuals receiving behavior analytic interventions. It is unknown whether choice of

intervention modality would have similar positive effects on the implementer. We hypothesized instructors will implement social scripts more often with multiple prompt delivery modalities.

One study that evaluated preference for intervention was conducted by Donaldson, Matter, and Wiskow (2018). Three teachers participated in this study and their preference for teacher-directed or students-directed interventions (Good Behavior Game) were assessed. Results of the preference assessment varied with each teacher preferring either teacher-led, student-led, or an indifference towards each option. Notably, the teacher who displayed indifference among the teacher-led and student-led interventions choose not to implement either or employed a modified version of the intervention that was not explicitly taught. These results suggest that in some circumstances, choice may actually play a negative role in the frequency and fidelity of implementation in classroom-based interventions. It is plausible that multiple simultaneous choices among interventions may result in higher frequencies of implementation and increases in treatment fidelity because the teacher will be able to select the most preferred method of presentation. Previous studies have demonstrated implementer preference to influence how well interventions are implemented. (Phillips, Phillips, Wolf, & Fixsen, 1973; Gabor, Fritz, Roath,, Rothe, & Gourley, 2016).

The purpose of this study was to (a) evaluate the effects of multiple available intervention modalities on the frequency of implementation, (b) assess instructor preference of two social skill interventions, and (c) determine the feasibility of the social script intervention.

## **CHAPTER 2:**

### **METHOD**

#### **Participants and Setting**

Participants included three student-instructor groups. Two of the three instructors, Minerva and Sybill, were teachers in the public-school system who worked in a unit for children with Autism Spectrum Disorder. The third teacher, Pamona, worked in a private school for special needs children that was based out of clinic where ABA services were provided. Minerva and Sybill had been working in their current position for over a year while the Pamona recently accepted her position in the classroom but had worked with children with Autism Spectrum Disorder for several years. Each instructor had a different age group of students ranging from 3-4 year olds (Minerva), 5-6 years olds (Pamona), and to 10-12 (Sybill) year olds.

Potential instructors were given information about the study as well as the principal investigator's contact information if they showed interest. If instructors choose to participate, they were given an informed consent form to sign and further information about the nature of the intervention and the study. Once an instructor was identified, the instructor sent home consent forms to all the students in the classroom. From there, interested parents reached out to the researcher for questions and returned the signed consent form, or both.

To ensure that social scripts would be an appropriate intervention for the selected students, the investigator screened students whose consent forms were returned using the Social-Communication Assessment Tool (S-CAT; Murdock, Cost, & Tieso, 2007). The S-CAT records the extent to which a child is using functional language and their social skills in the educational environment. This tool has been indicated to be an objective form of documentation of social

deficits and serves as indication that students need further support in this area. Instructors selected a student in their classroom that they thought was the most socially capable as a peer comparison for the S-CAT observation. Students who scored lower than the socially capable peer on the S-CAT observation qualified for the study. Further, inclusion criteria for this study included any instructor with (1) dedicated social skill instructional time, (2) a student who displayed social skill deficits via an S-CAT observation (i.e., the failure to display spontaneous and functional social interaction in an educational setting), and (3) the student must have displayed echoic behavior via an Early Echoic Skill Assessment within the Verbal Behavior Milestones Assessment and Placement Program.

To ensure the identified student did display the echoic behavior necessary imitate prompts the investigator screened the student using the measures of echoic behavior in The Verbal Behavior Milestones Assessment and Placement Program (VB-MAPP; Sundberg, 2008). The VB-MAPP provides educators and parents a way to evaluate their child's progress in learning, academics, language acquisition, and social skills (Sundberg, 2008). Students who scored at least 80% on the first two sections (simple and reduplicated syllables & 2-Syllable combinations) of the Early Echoic Skills Assessment qualified.

### **Pre-Experimental Phases**

**Script Selection.** After the identification of an eligible student-instructor group, the script selection phase began. During this phase, the instructor selected scripts that were developmentally appropriate for their student across five script categories: (a) general phrases, (b) play situations, (c) sharing and turn-taking, (d) conversational speech, and (e) reading conversational prompts. Each category had four or more different scripts options to choose from, the instructor choose all the scripts from one category or could have selected scripts from

multiple categories. The first prompt category is comprised of general phrases which include “Hello”, “Bye”, and “Thank you”. The second script category includes prompts for play situations including “Look”, “Watch me”, “Can I play too?”, and “Will you play with me?”. The scripts in this category were adapted from Krantz and McClannahan (1998) which used the scripts (“Look” & “Watch Me”) to gain adult attention. The third category of scripts is focused on sharing and turn-taking and includes “Can I have a turn?”, “It’s your turn”, and “No, I’m still playing”. The fourth script category, conversational speech, included four prompts that would encourage conversational speech and are to be used in succession of each other. For example, the first script in this category was “What did you do today?” and the matching script was “I went to school today”. These scripts were adapted from Charlop-Christy and Kelso (2003) who used similar scripts to prompt conversational speech. Once the instructor had identified the scripts they would like to use, the investigator created an auditory and textual version of each to be used by that instructor during data collection. The instructors in this study selected scripts and script categories prior to beginning the intervention but all instructors varied from their original plan and used scripts across all categories. An instructor also opted to add a script category to the selection listed above called: Reading Conversational Prompts developed by the first author (see Table 1). They incorporated the social script intervention into their reading group time and prompted the students to discuss the themes and characters of the story using the intervention.

**Table 1.** Social Script Categories and Individual Scripts

Script Category				
General Phrases	“Hello”	“Bye”	“Thank you”	“This is fun”
Play Situations	“Look!”	“Watch Me!”	“Can I play?”	“Will you play with me?”
Sharing/Turn-Taking	“Can I have a turn?”	“It’s your turn”	“No, I am still using it”	“Yes, you can have it”
Conversational Speech	“What did you do today?”	→ “I went to school today”	“What are you eating for lunch?”	→ “That looks yummy!”
Reading Conversational Prompts (1)	“Why did the Author write the story?”	“Who are the important characters?”	“How does the character feel?”	“How do you think others felt about what the character did?”
Reading Conversational Prompts (2)	“What is your favorite part of the story?”	“Have you ever felt the same way as the character?”	“How do you know this?”	“What is the story about?”
Reading Conversational Prompts (3)	“How were the characters alike or different?”	“How do you feel about what the character did?”	“Why do you think the character did what they did?”	“Does this remind you of anything in your life?”

**Instructor Training.** After the identification of the appropriate scripts, Instructors underwent a training procedure to become proficient in both social skill intervention types (textual social scripts & auditory social scripts). Instructor training and informed consent required a time commitment of 40 minutes. This session included a training on how to use the prompt delivery device (see Data Collection, below) and different prompt modalities. The instructor was observed delivering the prompts to the student or participated in a roleplay with their instructional assistant or another teacher and the first author gave feedback about which social opportunities the prompt should be delivered in as well as comments on the instructor’s fidelity. This session focused on intervention implementation, familiarization with the prompt

delivery device, and a discussion of familiar prompt delivery situations. The instructor was also given a handbook on how to use the prompt delivery device and example social situations for all the prompt types that they could review as needed. Instructors were offered to contact the principal investigator about questions about prompt delivery situations, methods, ect and did so several times throughout the study.

### **Data Collection and Dependent Measures**

**Number of Treatment Implementations.** The primary dependent variable was frequency of implementation of either auditory or textual scripts. The authors developed a tablet application that the instructor used, that made both auditory or textual social scripts (See Table 1) equally available to be delivered via button press. This application also included a feature that recorded the number and a timestamp of each button press, which was the recorded frequency of each prompt delivery. If implementations dropped below 2 per instructional day, the first author contacted the implementer in their preferred method of communication to ensure that the students were not absent, took a half day, environmental events prevented use (i.e., testing, field trips, ect) or there was some other issue with the prompt delivery technology.

**Instructor Preference.** The secondary dependent variable in this study was instructor preference for one or both of the script modalities. This was characterized by whether the instructor shows an exclusive preference while in the forced choice category compared to the free choice category and vice versa. In other words, did the availability or restriction of choice increase preference to one modality over another.

**Treatment Integrity.** The data collection method, the tablet application, for this study underwent calibration or the occasional test of the application which verified the measurement

taken by the prompt delivery system. This secondary measure taken by the first author also served as IOA assessment for 33% of sessions for each instructor.

**Intervention Rating Profile (IRP).** Instructors were administered the Intervention Rating Profile (Witt & Martens, 1983) within the first few weeks of data collection and after data collection. The profile includes 20 different items related to intervention implementation and success. These measures are designed to better understand the instructor's notions of the feasibility and acceptability of these interventions in the classroom as well as our prompt delivery technology.

**Usage Rating Profile-Assessment (URP-A).** Instructors were administered an adapted URP-A (Chafouleas, Miller, Briesch, Neugebauer, & Riley-Tillman, 2012) to assess the feasibility of the assessment of instructor preference. Note that this was distinct from the acceptability of each script type, which was assessed by the IRP (see above). This assessment includes 28 items related to the acceptability and feasibility of the intervention as well as the instructors understanding of the assessment, the system climate in which they work, and system support of assessments (Chafouleas, Miller, Briesch, Neugebauer, & Riley-Tillman, (2012). This measure ultimately was involved in assessing our measurement of preference for the two social skill interventions.

**Session Description.** As part of the inclusion criteria, instructor participants needed to have some dedicated time in which they teach social skills. According to the participating school district and private school, although social skill time was required, teachers had substantial leeway in choosing when and how to program that time. Acknowledging this part of the context, one primary purpose of this study was to see if giving teachers options in implementing an intervention increases how often they do so. Therefore, rather than trying to constrain teachers to

implement the social scripts a specific amount of times each day or within a specific window (which might keep the opportunities to implement the intervention constant), we were interested in independent variables that might lead to changes in teacher implementation.

In following with the above logic, each ‘session’ was an entire school day and a day in which at least one of the students attended for at least 75 % of the school day. The prompt delivery system was available to the instructor to use all day. Instructors were required to login to the prompt delivery device by selecting their initials from a list of instructors that was displayed once the app is opened. After two minutes of no use, the app required the instructor to login again. Depending on the condition the instructor was in, either auditory, textual, or both script modalities were available to them. Instructors could also delegate its usage to other available professionals to maximize its usefulness. If all the selected students were absent, other environmental events prevented implementation, or students missed all or part of the planned social skill instructional time for that day, that session was not included in this study. To determine the student’s attendance, the principal investigator reviewed with the instructor at each device calibration if they had any complications (i.e. missing students or environmental events) that could have interfered with implementation. If the instructor reported complications, that session was thrown out. Within each session, instructor social skill time typically involved teacher led team challenges, board games, group projects, or any activities that require students to interact with each other to complete a task.

### **Experimental Phases**

**Forced Choice Audio.** During this phase instructors were supplied with a tablet application containing appropriate auditory social scripts. The instructor had the ability to press a

button labeled with the appropriate script and it will play. The instructor can be in any location to present the script as long it is within the hearing range of the student.

**Forced Choice Textual.** During this phase instructors were supplied with the investigator developed tablet application containing appropriate textual social scripts. The instructor had the ability to press the appropriate script and a visual stimulus would appear. The instructor must have presented the visual textual stimulus in front of the student, so they were able to read it.

**Free Choice.** During this phase instructors were supplied with the tablet application containing appropriate textual and appropriate auditory social scripts. The instructor had the ability to press the appropriate script, but they had the option between an auditory or a textual stimulus. The instructor must have presented the visual textual stimulus in front of the student, so they were able to read it; the auditory could have been positioned anywhere if it were within the hearing range of the student.

**Free Choice + Feedback.** During this phase the instructor continued to have all script modalities available to them. In addition to this, they also received feedback in relation to their usage in the form of information about the effects of consistent prompt delivery and inconsistent prompt delivery when teaching with social scripts. The feedback was delivered daily by the investigator via their preferred method of communication. Each message included information about how often the instructor was implementing. It also gave information about the importance of consistently delivery prompts and how consistent delivery effects how quickly the students will obtain the skill.

**Fading.** After the study has finished, the investigator made fading available for instructor to use that will lessen the opacity or volume of the scripts depending on the script the

instructor is using based on their feedback and whether or not they decided they would like to continue to use the intervention in the following school year. This feature will allow the instructors to fade the scripts depending on their student's responding to where they can emit the selected scripts independently.

### **Experimental Control and Secondary Analyses**

Experimental control was demonstrated using a nonconcurrent multiple baseline design across instructors with an embedded multielement design to examine the changes in preference and implementation frequency as a function of the availability of concurrently available choices. An examination of instructor responses was used to isolate the components of the Intervention Rating Profile and Usage Rating Profile most important to instructors in the context of social interventions.

## **CHAPTER THREE:**

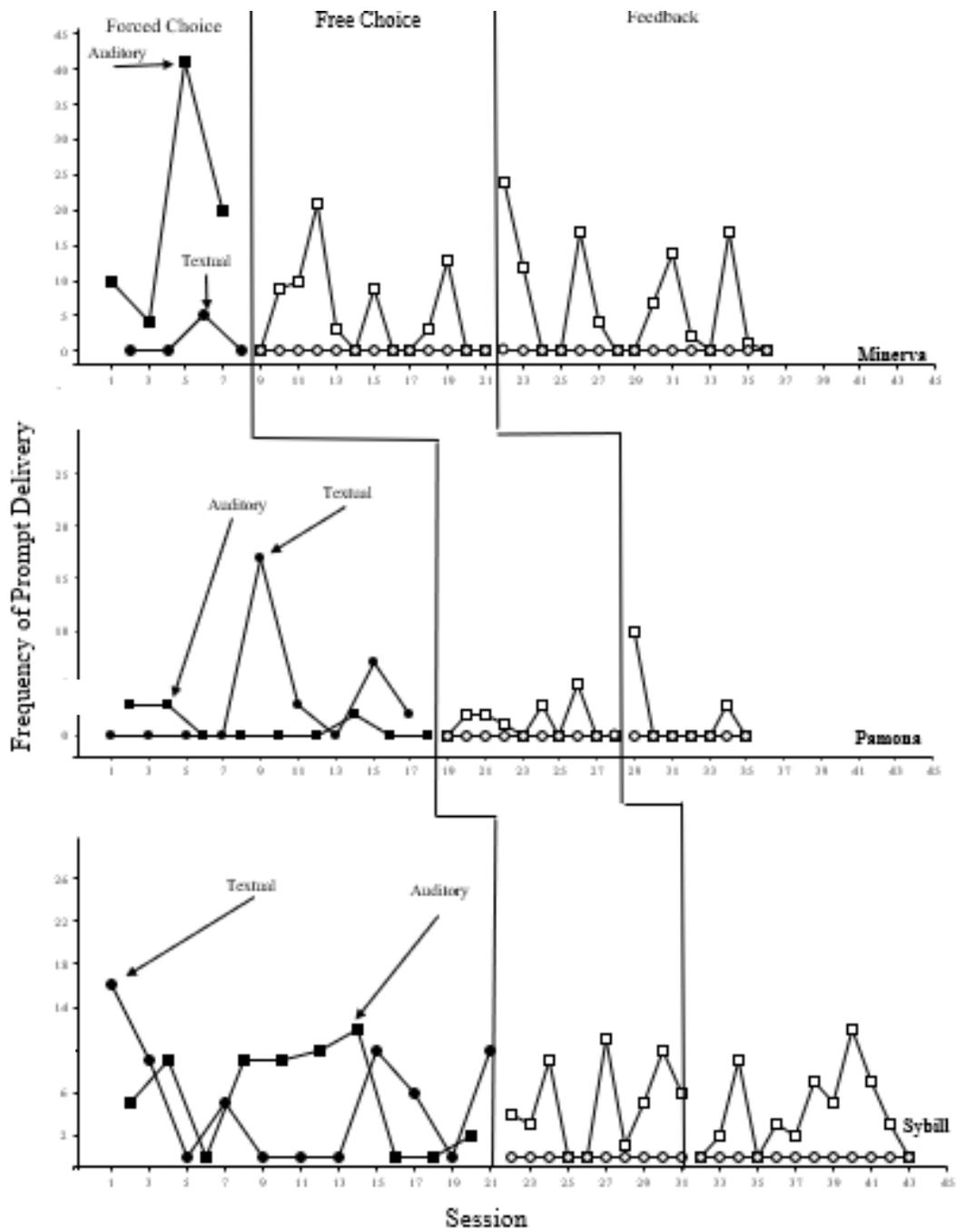
### **RESULTS**

This section details the experimental outcomes of the investigation of the relationship between the availability of multiple prompt modalities and daily implementation frequency. Data on implementation frequency also convey instructor preference for each prompt modality.

Minerva (top panel of Figure 1), the first participant in our multiple baseline, used the auditory scripts more frequently than the textual script in the forced choice phase. She did occasionally use the textual scripts in this phase, but not as often as the auditory scripts. When Minerva moved into the free choice phase, she showed an exclusive preference for auditory scripts and never chose textual scripts. Participant two and three, Pamona and Sybill (shown in the middle and bottom panels of Figure 1, respectively), used both script types approximately the same number of times in the forced choice phase. But like Minerva, when they moved into the free choice phase, they too showed an exclusive preference for auditory scripts and never chose the textual scripts.

There was no increase in frequency of implementation in the choice condition for any of the three instructors. The results of the forced choice conditions indicate either a mixed preference (Pamona and Sybill) or an auditory preference (Minerva). All teachers in this study never used the textual modality while in the choice condition and showed an exclusive auditory preference.

In final phase, the feedback phase, there was no increase in frequency of implementation for any of the three instructors. .



**Figure 1.** The Results of a Nonconcurrent Multiple-Baseline Across Instructors with an embedded Multielement Design

## **Treatment Integrity**

Treatment Integrity data were taken in this study in the form of “calibration” and also served as the interobserver agreement data for 33% of all sessions for each instructor. The prompt delivery device had 100% accuracy in its recording of when a prompt was delivered across all instructors.

## **Intervention Rating Profile (IRP)**

The results of the Intervention Rating Profile indicated an overall high level of social validity in both the pre- and post-assessments for the social script intervention. Average social validity across all IRP items did increase 9.26% (7.2 points) from pre- to post assessment (Pre-Assessment total: 77.7 / 90; Post-Assessment total: 84.9 / 90; See Table 2).

## **Usage Rating Profile – Assessment (URP-A)**

The results of the Usage Rating Profile- Assessment (URP-A) indicated that teachers found our measurement of their preference acceptable and somewhat accurate; only one instructor indicated that their preference might change when not using social script app. Instructors did indicate that they often felt the textual script modality was not as useful as the auditory script modality (see Table 3).

**Table 2.** Average Results Across Instructors for the Intervention Rating Profile (IRP) Pre & Post

<b>Item</b> <i>1= Strongly disagree 6=Strongly agree</i>	<b>Pre- Intervention</b>	<b>Post Intervention</b>	<b>Change</b>
Acceptable for child's needs	5.3	6	+0.7
Appropriate for similar children	5	5.6	+0.6
Effective to support a child	5.3	5.6	+0.3
Would suggest to other teachers	5.3	5.6	+0.3
Child needs are severe enough	5.3	6	+0.7
Teachers would find this intervention suitable	5.6	5.6	0
I would use this intervention in my classroom	5.5	5.6	+0.1
Would not have negative side effects	4.6	5.6	+1
Would be appropriate for a variety of children	5	5.6	+0.6
Is consistent with other interventions I use	4.3	5.3	+1
Is a fair way to handle a child's needs	5	5.6	+0.6
Is reasonable for the needs of children	5	5.6	+0.6
I like/liked this procedure	5.6	5.6	0
A good way to handle the needs of children	5.3	5.6	+0.3
Overall, it would/will be beneficial for my classroom	5.6	6	+0.4
<b>Totals</b>	<b>77.7/90</b>	<b>84.9/90</b>	<b>+7.2</b>

**Table 3.** Results of the Usage Rating Profile-Assessment for all Instructors

<b>Item</b>	<b>Minerva</b>	<b>Pamona</b>	<b>Sybill</b>	<b>Average</b>
<i>1= Strongly disagree 6=Strongly agree</i>				
Effective for understanding my prompt preference	6	6	5	5.6
I think additional resources are needed	1	2	2	1.3
I have positive attitude about this assessment	5	6	5	5.3
Time required was manageable	5	5	5	5
This would work for other instructors	5	5	5	5
I am knowledgeable about this assessment	5	6	5	5.3
Procedures fit with my current practices	5	5	5	5
Required minimal materials	5	5	6	5.3
Measuring teacher preference is important	6	6	6	6
Assessment is too complex	2	2	2	2
My preference would change without the iOS	5	2	2	3
My preference matched the outcomes seen	5	4	5	4.6
Was not disruptive to my students	5	5	6	5.3
I felt engaged when using my preferred prompt type	5	4	6	5
I found auditory prompts not useful	1	2	1	1.3
I found textual prompts not useful	6	5	1	4
I had time to participate in this assessment	5	5	5	5
I understand how this assessment measures preference	5	5	5	5
I would not implement this assessment myself	2	2	5	3
The environment was conducive to implementation	5	5	5	5
I understand the procedures of this assessment	5	6	5	5.3
I would want more professional development to do this	2	4	2	2.6

## **CHAPTER 4**

### **DISCUSSION**

Results of this study indicate that even though choice has been shown to have positive effects on behavior like increasing task engagement, positive affect, and accuracy in the completion of tasks (Cannella, O'Reilly, & Lancioni, 2005; Kern et al., 1998) it was not effective in increasing the frequency of implementation for instructors. Although surprising, these results might actually be consistent with previous research by Donaldson, Matter, and Wiskow (2018) in which preference for teacher-directed or students-directed interventions (Good Behavior Game) were assessed in three teachers. When given a choice, one teacher chose not to implement either intervention. A common element in both studies was that unselected interventions in choice phases tended to be those that were less preferred overall. In that sense, results of both studies mirror results of preference assessment studies like Roscoe et al. (1999) who have shown individuals sometimes show exclusive preference for the greater of two preferred options in a choice arrangement even though they might be selected at comparable rates when they are the only option available. Presumably, the teacher in Donaldson et al. (2018) did something other than the two interventions she was asked to choose between, and that thing might have been unmeasured by experimenters and more preferred.

In this study, both the free-choice and forced-choice conditions provided an opportunity for us to assess preference. The free-choice condition was analogous to a paired-choice or concurrent-chains procedure. In addition, it served to tell us whether or not the availability of

choice would affect preference for instructors. While in the free choice phase, each instructor showed an exclusive preference for auditory social scripts, with all three instructors never using textual scripts during this condition. This exclusive preference, however, was not seen in the forced choice condition (which, might be analogous to a single-item preference assessment format). Each instructor used the textual scripts in the forced-choice condition at least some of the time even though the study did not require any minimum amount of usage. Further, Pamona showed a preference for textual in the forced-choice condition, which switched when she entered into the free-choice category. A somewhat similar pattern emerged with Sybill who had equal implementation frequency between textual and auditory scripts in forced choice condition that also disappeared when choice was made available. These results suggest that the availability of choice could have an effect on what is preferred between these two social script modalities. This is reflected in the data for Pamona and Sybill whose preference changes from undifferentiated to auditory when choice became available.

The feedback phase in this study was designed to give instructors feedback and praise for high levels of implementation. Each instructor had chosen their most convenient form of communication (i.e., email or text message) to receive feedback which was delivered at the end of every session (i.e., the end of every day). There was no visual difference in the frequency of implementation in the feedback condition compared to either the forced choice or free choice condition for all three instructors.

### **Social Validity**

The instructors participating in this study rated the social scripts intervention highly in pre and post assessment of the Intervention Rating Profile (IRP). Acceptability increased 9.25% (+7.2 points) in post assessment indicating that instructors' acceptability of the intervention

increased after extended exposure. This outcome indicates that social scripts procedures used in this study could be an acceptable intervention within classroom settings. Although, this is in discordance with the frequency of implementation data, which showed teachers often failing to use the intervention and might not have displayed the engagement and acceptability recorded in the Intervention Rating Profile.

The results of the Usage Rating Profile – Assessment (URP-A) indicate that instructors found our procedures for determining their preference acceptable. Two out of the three instructors indicated that we accurately determined their prompt preference. One instructor indicated that she did not have a preference for either modality and scored that item low on the assessment. Two out of the three instructors indicated that they found the textual scripts not useful for their classroom. This result could be due to the fact that the instructor that did feel favorably towards the textual modality had older student who might be more fluent in reading the textual scripts. Overall, this procedure was an acceptable way to determine prompt preference. The length of this procedure should be considered when choosing this evaluation of preference in classroom settings (2 to 3 months). There are shorter assessments of preference that might be more feasible.

### **Limitations and Future Directions**

It seems that instructors had a slightly higher frequency of implementation within the first few weeks of this study. It is possible the first phase was associated with the highest implementation simply because the interventions were new. This factor might be further examined by varying the order of conditions across participants and using a shorter study timeline.

The instructors in this study had the opportunity to choose between two intervention modalities. These modalities did have distinct differences in terms of method of presentation but were still part of the same intervention and had similar procedures. It is unknown whether choice of interventions with greater dissimilarity would have a similar effect.

An additional limitation was that researchers were unaware of how much social skill instructional time the instructors had available during each session. For example, factors such as the duration of other curricular activities, the presence or absence of other students (which might affect the availability of one-on-one time), and so on might have contributed to the variability across days. Data from the current study do show some day-to-day variability, but the main effect of exclusive preference in the choice phase was obtained despite that. Still, the variability might obscure modest differences in overall implementation frequency and overtime even modest differences might have cumulative effects on student outcomes. Future studies might require instructors to use the intervention within a more limited time frame such as a consistent social skill instructional time.

Further, this study did not collect data on student outcomes, so our assessment of feasibility and social validity is only related to the procedures of this study not the outcomes. Future studies should examine student outcomes to determine if the social script intervention creates socially valid behavior change for students.

Feedback did not produce an increase or change in the implementation of the intervention. This could be due to our method of feedback, because feedback was not delivered in person and because instructors were not required to acknowledge that the feedback was received it's likely they did not contact feedback every day or did not pay close attention to the feedback given. In addition, the feedback given was not on their delivery of the intervention but

their frequency of implementation. Participants likely could have benefited with more individualized and constructive feedback which could have led to higher implementations in addition to high treatment integrity.

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## **APPENDICIES**

## Appendix A:



# URP-Assessment

**Directions:** Consider the described prompt preference assessment when answering each of the following statements. Circle the number that best reflects your agreement with the statement, using the scale provided below.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. This assessment is an effective choice for understanding my prompt preference. (1)	1	2	3	4	5	6
2. I think additional resources are needed to accurately assess my prompt preference. (2)	1	2	3	4	5	6
3. I would have positive attitudes about doing this assessment myself. (11)	1	2	3	4	5	6
4. The total time required to implement the assessment was manageable. (8)	1	2	3	4	5	6
5. The use of this assessment would accurately measure the prompt preference of other instructors.	1	2	3	4	5	6
6. I am knowledgeable about how this assessment measured my prompt preference. (6)	1	2	3	4	5	6
7. These assessment procedures fit in with my current practices. (22)	1	2	3	4	5	6
8. This assessment required minimal materials. (13)	1	2	3	4	5	6
9. Measuring and understanding teacher preference is important. (0)	1	2	3	4	5	6
10. This assessment tool is too complex to carry out accurately. (18)	1	2	3	4	5	6
11. I believe my prompt preference would change if I wasn't using the prompt delivery app. (0)	1	2	3	4	5	6
12. My preference matched the outcomes recorded in the study. (0)	1	2	3	4	5	6
13. This assessment was not disruptive to students or their learning environment. (20)	1	2	3	4	5	6
14. I felt more engaged with the intervention when using my preferred prompt type. (0)	1	2	3	4	5	6

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		Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
15.	I found the auditory prompts not useful and choose not to use them. (0)	1	2	3	4	5	6
16.	I found the textual prompts not useful and choose not to use them. (0)	1	2	3	4	5	6
17.	I was able to allocate my time to participate in this assessment. (3)	1	2	3	4	5	6
18.	I understand how this assessment measured my prompt preference. (4)	1	2	3	4	5	6
19.	I would not be interested in implementing this assessment myself. (9)	1	2	3	4	5	6
20.	My work environment is conducive to implementation of an assessment like this one. (25)	1	2	3	4	5	6
21.	I understand the procedures of this assessment. (24)	1	2	3	4	5	6
22.	I would require additional professional development in order to implement this assessment. (28)	1	2	3	4	5	6