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Using Video Modeling and Video Prompting to Teach Conversational Skills to Students with Autism: A Consideration of Effectiveness, Practicality, and Acceptability

Abstract

Many studies have been focused on video modeling and prompting as effective evidence-based practices to teach conversational skills to students with autism spectrum disorder (ASD). However, few studies have focused on teachers who implement video modeling and prompting in their classrooms. This article aims to describe the experiences and perceptions of four special education teachers who have used video modeling and prompting with four autistic students for a semester in their classrooms. The participants were asked questions related to three main areas: effectiveness, practicality, and acceptability. Most of the teachers did not regard this intervention as an effective and acceptable way to teach conversational skills to students with ASD. Training and support was requested by all teachers to enhance the practicality of this intervention. Other important implications for researchers and teachers were identified.

Keywords: Video Modeling, Video Prompting, Autism Spectrum Disorder, Conversational Skills, Communication Skills, Assistive Technology.

Introduction

Recent data from the U.S. Department of Health and Human Services (2018) have shown that autism spectrum disorder (ASD) affects one out of 59 children in the United States. As a result of this disorder, many children with ASD have speech, language, and communication deficits (Min &Wah, 2011). Tager-Flusberg et al. (2009) identified five key phases of expressive language acquisition that typical children go through: (1) preverbal communication, (2) first word, (3) word combinations, (4) sentences, and (5) complex language. However, this development does not apply to children with ASD. Many studies (e.g., Gernsbacher, Morson & Grace, 2015; Alzari, 2014; Mason et al., 2012) have measured language abilities in children with ASD, finding that children with ASD usually show delays in language development in all the phases when compared with children without disabilities. For instance, children with autism show delays in speaking their first word (e.g., car, Matson et al., 2010); speaking their first phrases (e.g., green tree, Kenworth et al., 2012); and speaking their first grammatical sentences (e.g., I am good, Alzari, 2014).Therefore, issues related to expressive language is common between children with ASD and that may lead to other types of issues.

Conversational Issues and Its Effects

Conversational and communication issues are a common problem for children with ASD especially those with high functioning autism.

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Some studies have shown that language deficits are strongly associated with learning failure in school. Mason et al. (2012) found that conversational issues for students with ASD effect their academic progress, especially when academic needs include collaborating with other students in groups, asking for help, and engaging in discussion. In addition, social skills deficits are one of the main diagnostic features of children with autism. Rubin and Lennon (2004) noted that children with ASD fail to engage with others in conversational turn taking. They also face a hard time exchanging abstract information, such as feelings and opinions, with others. In addition, children with ASD face difficulties using nonverbal communication, such as eye contact and facial expression (Meacham & Almalki, 2018).Because of these deficits in socio-communicative skills, Chang & Wang (2018) suggested that it is important for students with autism to improve their conversational and communication skills to enable them to:(1) improve their quality of life, (2) improve their personal relationships with others, (3) achieve success in their academic and work life, and (4) increase their independence.

Video Modeling and Video Prompting

Marino & Myck-Wayne (2015) argued that in order to enhance the conversational and communication skills of students with ASD, teachers and practitioners would need to use evidence-based practices. The efficacy of video modeling and video prompting is supported by research as evidence (Park et al., 2019). Video modeling and video prompting emerged in the 1990s (Wilson, 2013). They involve the use of video recording and display equipment to provide a visual model of targeted behaviors or skills (Rex, Charlop, & Spector, 2018); they can be used separately or as one package (Chang & Wang, 2018).Park et al. (2019) defined video modeling as a strategy that involves the use of videos to provide the modeling of targeted skills. After viewing a video on a given topic, the individual is expected to imitate or repeat the actions depicted n similar settings. Video prompting is considered to be similar to video modeling, used because some individuals with disabilities are unable to watch an entire video in one session; videos can be viewed briefly or separately as visional prompts to break the skill into smaller steps (Knight, Kuntz, & Brown, 2018).

Considerations of Effectiveness, Practicality and Acceptability

Mitchem & Young (2001) argued that researchers need to know whether a teacher's decision to use an intervention is based on the intervention's effectiveness, practicality, and acceptability. Effectiveness refers to "the reported effectiveness of an intervention of the behavior(s) of target students and other students" (Mitchem & Young, 2001, p.77). Effectiveness measures both the positive and negative effects of using an intervention on a student's performance. Practicality refers to "the materials, equipment, additional personnel, or preparation required for training in the procedure or implementation of the procedure" (Mitchem & Young, 2001, p.77). This factor is extremely important because it helps teachers and researchers understand other aspects of the intervention, such as the amount of time needed to train teachers and to implement the intervention. Lastly, acceptability refers to "the judgments of teachers and students of whether treatment procedures are appropriate, fair, and reasonable for the students, and teacher, and for the target behavior" (Mitchem & Young, 2001, p.77). This factor shows researchers whether teachers are satisfied with the procedures involved in an intervention, and the results shown after implementation.

Statement of the Research Problem

Although video modeling and prompting have been recommended by many researchers as an evidence-based practice to teach conversational skills to students with ASD, little teachers use this intervention in their classroom settings. Marino and Myck-Wayne (2015) pointed out some reasons behind this limited use, such as lack of time to create videos and teachers' personal attitudes and beliefs toward video modeling. For this reason, this study will contribute in addressing issues and challenges facing teachers while implementing video modeling and prompting in the classroom. This study will also contribute in understanding the experiences and perceptions of teachers who use this intervention. Addressing these significant components will help teachers and researchers to maximize the use of video modeling and prompting as an evidence-based intervention and decrease their limitations.

Purpose of the Study

The purpose of this study is to describe teachers' experiences and perceptions of video modeling and prompting when used to improve the conversational and communication skills of students with ASD in classroom settings. This study was conceived after the author participated in another study used single-subject design research method to measure the effectiveness of video modeling and prompting in improving the

conversational skills of autistic students. Therefore, the author decided to interview teachers to ask them questions related to the effectiveness, practicality and acceptability of implementing video modeling and prompting in their classroom settings.

Research Questions

The current study is guided by the following research questions:

1. How do teachers the effectiveness of video modeling and video prompting in teaching conversational skills to students with ASD?
2. How do teachers regard the practicality of video modeling and video prompting in teaching conversational skills to students with ASD?
3. Are video modeling and video prompting acceptable methods for teaching conversational skills to students with ASD?

Method

Design

This qualitative study used phenomenological approach to answer the research questions. This approach was selected because it focuses on individual experiences, beliefs, and perceptions (Palinkas, 2014). In addition, the phenomenological approach is appropriate when everyone shares a common experience of the event that needs to be described (Mohajan, 2018), as well as the case in this study. This design allowed participants to talk freely, providing more information for use in the study. In addition, a thematic analysis was applied to identify and examine themes within the data set, that is, the transcribed text from the interviews (Gormley, 2015). Thus, the study was not hypothesis driven and the researcher did not attempt to make predictions.

Participants

After all protocols were approved by the Institutional Review Board (IRB), the study was conducted in a public sponsored special school for students with moderate, severe, or profound developmental disabilities in the U.S. Midwest. The school serves students from ages3to 21. Four special education teachers (Table 1) were selected specifically because they implemented video modeling and prompting in their classrooms to teach conversational and communication skills to four students with ASD(Table 2)for an entire semester(their real names are not used in the tables).Thus, purposive sampling was selected here because, as Stewart et al. (2014) have noted, it allows researchers to select those who will provide the best information for the research questions. This study used the same inclusion criteria that were used in the dissertation study: a) over three years of experience working with students with autism, b) regular contact with autistic students, and c) indicated a willingness to reflect on their experience.

Table 1.

Participants (teachers)

Name	Gender	Age	Experience of teaching	Experience of using video modeling	Level
Nancy	Female	56	27 years	One semester	3th grade
Ellen	Female	44	18 years	One semester	5th grade
Jolene	Female	39	14 years	One semester	4th grade
Diana	Female	32	7 years	One semester	3th grade

Table 2.

Students with ASD

Name	Gender	Age	Diagnosis	Experience of using video modeling
Kristi	Female	12 years	Moderate ASD	One semester
Azeem	Male	12 years	Moderate ASD	One semester
Kyle	Male	10 years	Severe ASD	One semester
Chris	Female	14 years	Severe ASD	One semester

Data Collection

The data were collected by the author, who conducted separate face-to-face interviews with four teachers. The four interview sessions took place at a convenient location in the school and lasted for forty-five minutes. The interview questions included structured, and open-ended questions, which were helpful in collecting more information about the teachers' experiences of using video modeling and prompting to teach conversational skills to students with autism.

These questions were mainly related to three areas: effectiveness (Table 3), practicality (Table 4), and acceptability (Table 5).

Table 3.

Examples of the interview questions related to effectiveness

1. How would you describe your students' learning of new conversational skills through video modeling and prompting?
2. Were the improvements in conversational skills significant or small? Did the improvements occur immediately or take time?
3. Did you see evidence of your student being able to generalize the conversational skills learned through video modeling/prompting to other times of the day or to other settings? Explain.
4. How would you describe the level of effectiveness of video modeling and prompting in teaching conversational skills? Was one method more effective than the other?
5. Do you think video modeling/prompting would be effective for teaching other skills? Explain.

Table 4.

Examples of the interview questions related to practicality

1. How would you describe your experience of using video modeling and prompting in your classroom?
2. How would you describe the level of hardness/easiness of implementing video modeling and prompting in the classroom?
3. Tell me about the level of support and training you needed while using video modeling and prompting to teach conversational skills to your student?
4. Your student used an iPad to view the videos. Would it be practical for the student to watch video modeling by him/herself? How about video prompting?
5. How practical would it be to teach other skills by using video modeling and prompting? Explain.

Table 5.

Examples of the interview questions related to acceptability

1. How would you describe your experience using video modeling and prompting with students with ASD?
2. Describe what you did not like about video modeling or prompting in the classroom?
3. Would you continue to use video modeling and prompting after this study is completed? Would you use video modeling and prompting in the next school year?
4. Tell me about methods you have used to teach conversational skills to students with ASD?
5. Are video modeling and prompting preferred and acceptable practices for you to use for students with ASD? Explain.

Interview Guidelines

Each interview session started by welcoming the interviewee and providing background on the study, followed by an explanation of the purpose of the interview. Following this, the author handed out a copy of the interview questions for the participant and invited them to add more information during the interview session even if it was not related to the interview questions. In all the interview sessions, videography was selected as the data collection method because it allowed for a better understanding while analyzing the data than the use of other methods, such as audio recording. Given that the topics was conversation and communication, the visibility of facial expression, gesture, and body language were important.

Data Analysis

The videotapes were transcribed verbatim and in sequence by a professional transcriptionist. The author checked the transcripts to ensure accuracy. The data were uploaded to NVivo 10, a software program used by researchers to analyze qualitative data (Bufoni, de Sousa Ferreira, & Oliveira, 2017). The teachers' statements were reread and assigned into categories. These categories were reflected on and then formulated into themes. Throughout this process, the author reviewed the transcripts to ensure that emerging categorical and thematic ideas were reflected in the data and to check for any statements that might contradict the emerging analysis. To enhance the credibility of the data, findings were discussed with two professors (member checking) with extensive experience of qualitative research. The purpose of these discussions were to allow different interpretations of the data to be considered and to minimize the impact of individual bias on the outcome (Korstjens & Moser, 2018).

Results

This section is divided into effectiveness, practicality, and acceptability. Each factor contained emerging themes (Table 6), which are discussed in detail below.

Table 6.

Themes

Themes	Sub-themes
Effectiveness	*Immediate and significant effectiveness* *Generalization* *Selecting the Right Method* *Progress monitoring* *Troubleshooting skills*
Practicality	*Training and support* *Time and effort*
Acceptability	*Time consumption* *Willingness to use the intervention* *Participation in preparation*

Effectiveness

Immediate and Significant Effectiveness

The data showed that most of the teachers accurately reported similar results regarding the effectiveness of video modeling and prompting. Three of the four teachers did not see video modeling and prompting as effective interventions to improve the conversational and communication skills of students with ASD. They did not observe any immediate and significant effects from the use of video modeling and prompting on their students. For example, Diana said,

> I do not think video modeling and prompting effective interventions because they did not work with my student… It may work with other students, but not with this particular case I am working on… I actually would stop using it if I do not see it effective and my student is improving.

Another teacher, Jolene, said, "It was not effective with my student." A third teacher, Nancy, found that the practice was somewhat effective, however:

> These videos helped to improve my student's conversational language a little bit, but it took me a long time till I saw that improvement. I wished to see really good and fast improvement so that I would not feel frustrated... and waste my class's time.

Overall, the teachers wanted to see immediate and significant improvements in the students' acquisition of conversational skills to consider video modeling and prompting as effective interventions.

Generalization

Generalizing the new learned skills to other classes is one of main reasons why this intervention has been used by practitioners everywhere. For this reason, the teachers were asked if this intervention has helped their students to generalize their new learned conversational skills to other settings. None of the teachers were optimistic about their students' abilities to generalize conversational skills to other settings. With regard to the student for whom the practice was most effective, her teacher reported that she was not able to use what she had learned in her other classes:

> It is true that the videos helped to improve my student's language a bit, but she could not use what she had learned in our second class after you [the researcher] left… I really doubt that she will able to generalize that to other settings or at home or with friends… I would say it is impossible.

Selecting the Right Method

Comparison questions were asked regarding whether teachers preferred to use video modeling and prompting or other methods, such as the Picture Exchange Communication System (PECS), Voice-Output Communication Aids (VOCA), and sign language. The teachers varied in their responses. For instance, Jolene said, "I preferred to use PECS more than video modeling and prompting because these videos are time consuming." Interestingly, Diana said, "I think live modeling would be more effective than video modeling and prompting because my student has low functions." Nancy preferred to use video modeling, saying "I liked video modeling. I would use it in the future. I think these videos are equally effective with other methods." In sum, only one teacher liked to use video modeling to teach conversational skills, while the rest of the teachers preferred to use other methods with their students.

Progress Monitoring

The interview data showed that all four teachers understood the importance of measuring a student's progress while applying video modeling and prompting; it gave them a chance to judge the effectiveness of video modeling and prompting. Ellen said, "It helped me to see the whole picture, before and after." Another teacher, Diana said, "The videos did not help my student, but I think it is very important to collect data so you can see the difference." Although all teachers knew the importance of progress monitoring, two teachers raised the point that it was difficult for them to use the intervention with their students and measure the students' progress by recording whether the students' answers were correct. Doing both tasks was a challenge. Jolene said,

> Video modeling and prompting are a lot of work in themselves. They are still hard for me to use. Then when I was asked [by the

> researcher] to write down my student's answer, I felt overwhelmed. I had to play the video, stop the video, ask the question, listen to the answer, put the iPad down, write the student's answer, then pack the iPad again and do that over and over.

Another teacher, Nancy, said "It takes time to use the iPad with the student, then I put the iPad down and write down if his answer is right or wrong."

Overall, the teachers agreed that collecting data is important for measuring and observing the effectiveness of video modeling and prompting on students' conversational skills. However, a few of the teachers thought that monitoring the student's progress was a lot of work.

Troubleshooting Skills

The data indicated that video modeling was not effective enough to improve the communication skills of some students. As a result, a new intervention was implemented, namely video prompting. After troubleshooting, the data showed that the new intervention helped two of the four students to make some progress. Jolene said,

> Video modeling did not work with my student … I think my student did not like it because she had to listen to the whole video once … video prompting was good. My student improved a bit because she did not had [sic] to listen to the whole video once. She just listened to a small part of the video, then I ask [sic] her a question.

Practicality

Training and Support

All the teachers agreed that they needed training and support to implement video modeling and prompting correctly. For example, Nancy said,

> I was struggling using video modeling and prompting because I had never used an iPad in my entire life. I felt these videos were disruptive, and I absolutely felt that I needed someone to teach me how to use them before I used them with my student.

Interestingly, another teacher said that her struggle was not with video modeling but with video prompting. Nancy said,

> "I do not need training and support with using video modeling. I need training and support with using video prompting because I was definitely confused on when and how to implement video prompting during the session. It was really hard for me"

Thus, providing teachers with training and support before and while using video modeling and prompting is an important component if a high level of practicality is to be achieved.

Time and Effort

All of the teachers believed that the implementation of video modeling and prompting required substantial time and effort. Jolene said, "I felt video modeling and prompting wasted a lot of time of other students because I ended up focusing on solely one student rather than on the entire class while using these videos." Nancy said,

> Video prompting took a lot of class time because I needed to take the time to play the video, show it to the student, stop the video, ask a question, and listen to the answer. So, I felt I had to do a lot of things at once. It was really disruptive and time consuming.

Acceptability

Time Consumption

The data indicated that none of the teachers was completely satisfied with video modeling and prompting in the classroom. They felt that implementing these intervention stook up a lot of their class's time, as well as other students' time. Ellen said,

> Through my experience of using video modeling and prompting, I did not like using them at all and I think they are time consuming. They took a lot of my class time and my other students' time as well. I do not think I would use them again.

Another teacher, Jolene, said, "They are time consuming. Each time I take like ten minutes to show the whole video and ask my student questions. It just takes time and is confusing, especially with the prompting part." Interestingly, only one teacher said she would use them if she received help, "I might use them again if someone is going to help me, because they take a lot of time." Thus, the data showed that the time spent on using video modeling and prompting in the classroom is a huge issue for all the teachers.

Willingness to Use the Intervention

It was clear from the data that all the teachers thought that it was important to teach conversational skills to children with autism, believing that such skills would help the children to succeed in the future. However, the data

indicated that three of the four teachers were not willing to use video modeling and prompting. Nancy said,

> I do not think I am going to use video modeling and prompting again. I actually do not spend a lot of time on teaching conversational skills to my students even though it is important because I have a really busy schedule.

Another teacher, Jolene, said, "I do teach communication skills in my class, but I am not a big fan of video modeling and prompting. I like to use PECS in my class." The data showed that only one teacher said she would be willing to use video modeling and prompting again, "It is a tool that I have no problem to use it again. I will put it in my tools box." In sum, most teachers were preferred not to use video modeling and prompting in their classes.

Participation in Preparation

The four teachers were given iPads and asked to use them to teach conversational skills to their students. These iPads contained videos that the teachers did not participate in making; the teachers did not like the fact that the content of videos was pre-made. All of them said they would have preferred to have been involved in the preparation of the video modeling and prompting. Nancy said "I noticed there were some questions in the videos that were not of interest to my students, which led to a disinterest in watching the videos." Ellen said, "The questions in the videos should be written by the teachers of the students with autism because they are the ones who are responsible for teaching students."

Discussion

Conversational and communication deficits are among the key issues facing students with ASD (Meacham & Almalki, 2018). Consequently, teachers use video modeling and prompting as evidence-based practices to improve speech, language, and communication skills for students with autism (Wilson, 2013). However, while research has focused on the interventions themselves, little research has been done on the teachers who apply these interventions in their classrooms.

This study aimed to determine whether video modeling and prompting are effective, practical, and acceptable for special education teachers when they use them to teach conversational skills to students with ASD. In this study, most of the teachers saw no immediate and significant improvements in their students' conversational skills, which made video modeling and prompting unacceptable as interventions for them. In addition, the teachers agreed that the practicality of the videos would have been improved had they received training and support before and while using the intervention. The following section will discuss the findings in the three main areas of this study: effectiveness, practicality, and acceptability.

Effectiveness

Two important conditions must be met for teachers to use video modeling and prompting with their ASD students. First, they must be effective and the students would have to show immediate improvement in order for teachers to use them (Wynkoop, Robertson, & Schwartz, 2018). In this study, however, most of the teachers did not regard video modeling and prompting as an effective intervention, since they did not see an immediate and significant improvement in their students' language abilities: "I wished to see really good and fast improvement so that I would not feel frustrated... and waste my class's time," Nancy said.

Second, when teachers implement video modeling and prompting, they need to see the students being able to generalize their newly learned conversational skills in other settings and times and with other people (Jones, Lerman, & Lechago, 2014)). However, this was not the case in this study. The teachers reported that videos did not help their students to maintain their newly acquired conversational skills and use them in other settings. One teacher described her student's ability to use her new learned conversational skills in a new setting by saying "It is impossible."

It is important to compare the effectiveness of video modeling and prompting to other methods such as PECS and VOCA. Only one of the four teachers liked to use video modeling to teach conversational skills. The other teachers preferred to use alternatives, such as PECS and live modeling. Two important points need to be mentioned here for researchers and teachers.

First, it was the first time for the four teachers who were interviewed in this study to use video modeling and prompting as an evidence-based practice in their classrooms. The principal of the school asked the four teachers to collaborate with the researcher in his research and use video modeling and prompting in class. The four teachers did not know anything about this intervention and had never used it before. Therefore, researchers should know that just because video modeling and prompting are considered to be an effective evidence-based practice (Adamo et al., 2015; Jones et al., 2014; Wynkoop et al., 2018), this does not mean that they can ask teachers to use this intervention

without prior training. For example, teachers should be asked if they are familiar with this intervention, whether they have used it before, their attitudes toward the intervention, and so on. Questions of this sort will help researchers to identify which method is the most preferable for teachers and whether teachers are capable of implementing this video modeling and prompting in the correct way.

Second, teachers should have the right to select what they believe to be the appropriate interventions for their students (Adamo et al., 2015). They should not be forced to use a particular intervention. The results of this study showed that most teachers did not like to use video modeling and prompting, preferring to use different interventions with their students. There is one suggestion for teachers before they use an intervention to teach conversational skills to ASD students, however, Hong et al. (2016) suggested that before determining if a particular intervention is an effective and appropriate strategy for a particular student, a speech-language pathologist should evaluate the student's conversational skills, such specialists can help teachers to decide which method would be most effective.

In this study, two teachers felt that it was important to measure a student's progress while implementing the intervention: "It helped me to see the whole picture, before and after." The other two teachers agreed that progress monitoring is important, but said that it was a lot of work that they did not want to do, "[The intervention] is still hard for me to use. Then, when I was asked [by the researcher] to write down my student's answer, I felt overwhelmed." In this case, there are two important factors that teachers should know.

First, teachers should know that they have a significant role to play in implementing and measuring the effectiveness of video modeling and prompting on autistic students with communication issues (Hong et al., 2016). In other words, if teachers do not record data every day to observe and monitor progress, they may not be able to determine whether video modeling and prompting are effective. One of the best ways to monitor progress is by using graphs to show a student's conversational skills throughout the baseline and the intervention phases. This would help teachers to compare the differences before and after using video modeling and prompting interventions. Second, if teachers think that measuring a student's progress is additional work, they can find help from elsewhere. For instance, a teacher who has two paraeducators can ask one of them to write down her student's answers when implementing video modeling and prompting. In sum, it is highly recommended for teachers to monitor students' progress by recording data every day in order to be able to judge the effects of video modeling and prompting fairly.

To determine whether video modeling and prompting are effective, teachers should have some troubleshooting skills. This would help teachers to transition to other situations and adjust, or to use an alternative intervention when they face a problem while implementing video modeling and prompting (Park et al., 2019).If teachers have no troubleshooting skills, they may not know what to do when they encounter an issue while using video modeling and prompting, which may lead them to stop searching for an alternative intervention to help students to progress.

Practicality

In addition to being effective, video modeling and prompting should also be practical and feasible for educators to use. In the results section on practicality, the teachers said that they hoped to receive appropriate training on how to use video modeling and prompting before using them in class, as well as receive support while using them in class. Nancy said, "I was struggling using video modeling and prompting…I absolutely felt that I needed someone to teach me how to use them before I used them with my student." This finding is in line with that of other researchers that video modeling and prompting can be implemented with a reasonable amount of initial training and support (Genc-Tosun & Kurt, 2017; Park et al., 2019). This training is extremely important for teachers because they need to learn the procedures of implementing video modeling and prompting before using them in class, and to know how to troubleshoot if they face any issues (Park et al., 2019). Gaudin et al. (2015) pointed out that video modeling was found to be practical and effective when practitioners had a two-hour-long training session and a one-hour-long coaching session. Therefore, training, coaching, and supporting educators before and while using these interventions will help them to feel comfortable with them, as well as increasing the level of practicality of their use (Hong et al., 2016).

The results also indicated that the teachers were dissatisfied with the amount of time and effort spent implementing video modeling and prompting in their classes; "It was really disruptive and time consuming." However, teachers should not be disappointed and should know that spending time and effort is required to implement convenient video modeling and prompting, as well as other interventions (Genc-Tosun & Kurt, 2017). Without spending time and effort, students will not be able to generalize and

maintain teachable skills (Acar et al., 2017). Therefore, teachers should bear in mind to two important facts if they decide to use video modeling and prompting. First, they need to plan ahead in order to manage class time successfully. Second, they need to obtain assistance from paraeducators, so that the other students in the class do not feel they have been ignored.

Acceptability

Acceptability refers to the practitioner's decision as to whether an intervention procedure is appropriate and reasonable for the child and the target behavior (Park et al., 2019). Thus, the decision on acceptability is influenced by effectiveness and practicality (Cardon, Guimond, & Smith-Treadwell, 2015). If an intervention is not effective and easy to implement, it will not be accepted by teachers for use in their classrooms. Therefore, video modeling and prompting have to be effective and practical for teachers to accept them as interventions.

All four teachers described video modeling and prompting as time consuming interventions, "They are time consuming." Thus, two important points need to be mentioned here. First, it is true that the videos may take some time to be implemented. However, teachers need to know that to determine the acceptability of an intervention, they need to use the intervention first and give it some time before they can determine whether it is acceptable (Park et al., 2019). This means that use of an intervention for some time is a necessary condition for determining its acceptability. Second, it seems that the videos did not work well with the four teachers. However, the teachers should bear in mind that video modeling and prompting do not have to work for all students. Just because the videos did not work with their students, it does not mean the videos will not work with other students, or that they are time consuming. Thus, decision on acceptability can depend on how long teachers have been using video modeling and prompting, as well as the effectiveness and practicality of the interventions (Cardon et al., 2015).

Another significant point here regarding acceptability concerns researchers. It is extremely important for researchers to ask teachers about their perspectives on using video modeling and prompting before asking them to implement the intervention in their classrooms. As Hong et al (2016) said, this will allow researchers to know whether teachers 1) understand the importance of teaching conversational and communication skills to students with autism and 2) whether they are familiar with, and willing to use, video modeling and prompting as interventions to teach conversational skills to students with autism. Researchers should not expect all teachers to be willing to use video modeling and prompting to teach conversational skills. In fact, as the results indicated, some teachers prefer to use other interventions, such as PECS, to teach conversational skills, rather than video modeling and prompting: "I am not a big fan of video modeling and prompting. I like to use PECS in my class."

Lastly, the results showed that all teachers did not like the fact that the content of the videos were pre-made. They would have preferred to have participated in the process of preparing the videos. Hong et al (2016) identified two advantages to teacher participation in video preparation. First, it helps for the teachers to create the content of the video, decide the length of the videos, and choose the right modeling for the videos. Second, it helps the teachers to understand the correct method of use of this technique. Thus, there would be an enhancement of the effectiveness, practicality, and acceptability of video modeling and prompting.

Limitations and Future Research

There are some limitations to be addressed when considering the findings of this study. The first set of limitations are associated with the sample of this study. This study focused on a small number of participants (four teachers), which is not a large enough sample size to generalize the results. Future studies should be conducted on a larger sample. Second, there was a selection bias with regard to the participants of this study. This was because the author selected the same four teachers who were selected for the dissertation study. Future research should contain a wider range of teachers. Third, it was the first time for the participants of this study to use video modeling and prompting as an intervention. In fact, one of the teachers mentioned that she had never used an iPad in her entire life before this study. Thus, in order to measure the effectiveness, practicality, and acceptability of this intervention in a scientific way, researchers should ensure that teachers are experienced with this intervention to some extent and familiar with the technology. This is highly important because this could potentially produce different results.

Further limitations related to the location. This study was conducted at a special education school, and all the students in the school are considered to have moderate and severe disabilities. The results of this study showed that video modeling and prompting as an intervention did not work well with students with moderate

and severe ASD in this special education school. However, students with ASD in inclusive classrooms in public schools may respond differently, as may students with mild ASD. Thus, future studies should consider inclusive classrooms in public schools and students with mild ASD.

Lastly, here are a few suggestions for future studies. Future studies should explore the obstacles that teachers face while applying video modeling and prompting in classroom settings. For instance, teachers face problems associated with lack of professional development in using technology, which affects the proper implementation of technology in the classroom. Future strategies should focus on how to overcome these barriers. In addition, future studies should focus on observing the interaction between teachers and children with ASD while using video modeling and prompting to teach conversational skills. This might identify whether there is a need to improve interaction strategies with children.

Conclusion

Most of the research on video modeling and prompting has focused on the impact of the practices on the communication skills of children with ASD. However, little attention has been paid to the practitioners who use video modeling and prompting. As a result, there is not enough data on the social validity of video modeling and prompting, meaning that they are less likely to be used by practitioners (Wilson, 2013). To generate wider use of video modeling and prompting, researchers need to collect more data on their social validity and involve practitioners in the research process, asking them about their experiences of the effectiveness, practicality, and acceptability of video modeling and prompting. Addressing these issues may help researchers to increase the use of these methods among professionals and practitioners working with children with ASD, and may also help to keep practitioners informed about the practices or tools they should use, and why. Working on such an inclusive basis is likely to benefit researchers, practitioners, and students.

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Ethics Approval

All protocols were approved by the IRB, University of Northern Iowa.

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