Effects of Teaching Self-Determination Skills Using the Common Core State Standards

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Abstract: Research has indicated students can learn both transition planning and a wide variety of academic skills; however, due to recent legislation and the widely adopted Common Core State Standards, transition planning skills are sometimes being de-emphasized in favor of academic instruction. This study used a multiple probe across participants design to examine the effects of teaching both post-school options instruction and presentation skills instruction in the same lessons on students’ ability to deliver presentations on their post-school goals. Data indicate students were able to improve their ability to deliver presentations on their post-school goals; however, only one participant improved his ability to apply knowledge of post-school options. Maintenance data indicate all three students were able to maintain their ability to deliver their post-school goal presentation, while generalization data indicate two of the three students were able to deliver their presentation in an informal transition planning meeting.

Individuals with disabilities continue to experience poor post-school outcomes when compared to their peers without disabilities. For example, according to Newman et al. (2011), wave five of the National Longitudinal Transition Study-2, indicated individuals with disabilities have lower rates of employment, postsecondary school attendance, and independent living. Additionally, the disparity between student outcomes in different disability categories, specifically those with developmental disabilities, is even more discouraging with individuals with intellectual disability having the second lowest rate of employment and the lowest rate of postsecondary school attendance.

However, research has indicated one way to combat poor post-school outcomes is through providing secondary students with transition services. To provide guidance to schools when delivering transition services, researchers have identified a framework of essential components including instruction in self-determination (Landmark, Ju, & Zhang, 2010). One way to provide instruction in self-determination is through facilitating involvement in the transition planning process. This can include both developing the Individual Education Program (IEP) but also pre-planning activities such as receiving instruction in how to participate in the meeting and involvement in experiences and activities to help students learn about their interests, skills, and limits (Field, Martin, Miller, Ward, & Wehmeyer, 1998). Research has indicated involvement in these processes is associated with high levels of self-determination skills (Williams-Diehm, Wehmeyer, Palmer, Soukup, & Garner, 2008).

While research has indicated students with disabilities can learn to participate in the transition planning and IEP process (Test et al., 2004), in order to make this participation meaningful, students need information to make informed choices (Mazzotti, Test, Wood, & Richter, 2009; Richter & Test, 2011). Additionally, while research has indicated students are capable of participating meaningfully in the development of the IEP and transition component, teachers have not received adequate training to do this (Wandry et al., 2008) and students are still not being meaningfully involved (Martin, Marshall, & Sale, 2004).

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Low levels of involvement are not surprising considering teachers report having little time to teach IEP participation skills (Wehmeyer, Agran, & Hughes, 2000). One possible explanation for this lack of time could be due to mounting legislative pressure to focus on academics (Individuals with Disabilities Education Act, 2004; No Child Left Behind, 2002) and most recently, the latest recommendations for the reauthorization of the Elementary and Secondary Education Act (2010) and the subsequent development of the Common Core State Standards (CCSS; Common Core State Standards Initiative, 2010). These standards in conjunction with legislation have leaders in the field of special education questioning what place instruction in life skills, such as self-determination, will have in the classroom (Ayres, Lowrey, Douglas, & Sievers, 2011).

One way to resolve the struggle between delivering instruction on the transition process and academics may be to deliver them simultaneously (Basett & Kochhar-Bryant, 2006; Stang, Carter, Lane, & Pierson, 2009). Two research studies have been conducted examining the effects of teaching students to participate in the IEP planning process while also learning academic skills. Konrad, Trela, and Test (2006) and Konrad and Test (2007) examined the effects of GO 4 IT...NOW!, a writing mnemonic, on middle and high school students with disabilities’ ability to write IEP goal paragraphs and paragraphs on unrelated topics. Results of these studies indicated a functional relation between the Go 4 IT...NOW! instruction and an increase in both the content and writing quality of IEP goal and generalization paragraphs.

While this research supports teaching students both academics and self-determination skills together, both studies only focused on writing. An additional academic area from the CCSS teachers are required to assess their students on is speaking and listening skills. These anchor standards require students to gain and receive information through listening, speaking, and media. One such sub-standard requires students to “present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style appropriate to task, purpose, and audience” (Common Core State Standards Initiative, 2010). Research has been conducted examining the effects of teaching students with disabilities presentation skills (Scheeler, Macluckie, & Albright, 2010). Scheeler et al. (2010) examined the effects of immediate feedback delivered by peer tutors on presentation skills of four high school students with learning disabilities. The intervention was designed to decrease inappropriate presentation skills (i.e., speaking too quickly, rocking behavior, and incorrect inflection in voice) and participants received immediate feedback from peer tutors by having the peer speak through a wireless microphone transmitting to a small speaker in the presenter’s ear. While results indicated students were able to decrease their inappropriate presentation behaviors and both students and peers indicated they felt the wireless microphone was a good way to provide feedback, this study focused only on presentation skills and did not pair them with secondary transition.

There has been research examining the effects of teaching students to participate in their IEP meetings with presentation instruction embedded. For example, Lancaster, Schumaker, and Deshler (2002) taught students the Self-Advocacy Strategy which included teaching students the SHARE behaviors: (a) Sit up straight, (b) Have a pleasant tone of voice, (c) Activate your thinking, (d) Relax, and (e) Eye contact. While students in this study were able to learn the SHARE behaviors within the context of leading their IEP meeting, results for presentation skills specifically were not measured.

While the debate over transition and standards-based education continues (Ayres et al., 2011), teachers need research-based interventions allowing them to teach academics and life skills simultaneously (IDEA, 2004). Although previous research has identified ways to instruct students in post-school options and transition skills (Mazzotti et al., 2009; Richter & Test, 2011) the absence of a link to academics is a limitation. In addition, research providing both instruction in self-determination and academics has not included speaking and listening skills as a topic of research (Konrad & Test, 2007; Konrad et al., 2006). Research has indicated students with disabilities can learn speaking and listening skills such as de-
delivering presentations and the CCSS has identified this as a skill on which all students are to be assessed. Therefore the purpose of this study was to examine the effects of post-school options instruction on the knowledge of options and ability to orally present personal post-school goals for high school students with developmental disabilities.

Method

Participants

Three high school students with developmental disabilities participated in this study. Inclusion criteria included participants having an intellectual disability, autism, and/or multiple disabilities with an IQ score of 60 or below. Additionally, participants had to be able to communicate verbally, have no more than 15 absences the prior school year, and score less than a five on the prebaseline assessment. Participants were identified by teacher nomination.

Nick. Nick was an African American 15-year-old male identified with intellectual disability and ADHD. His full scale IQ was 50 as measured by the Leiter International Performance Scale-Revised; however, those data were approximately 8 years old. Because his assessment data had not been updated recently, his current reading level was unknown.

Tyrone. Tyrone was an African American 19-year-old male identified with moderate intellectual disabilities. His full scale IQ as measured by the Wechsler Intelligence Scale for Children IV was 42 and his verbal comprehension index score was 61. According to the Woodcock-Johnson-III, Tyrone’s reading standard score was 22. Tyrone used a wheelchair to move from class to class but did have the ability to walk short distances. Both Nick and Tyrone had not received formal instruction in identifying post-school goals or delivering presentations.

Antwone. Antwone was an African American 18-year-old male identified with mild intellectual disability. Additionally, Antwone also was diagnosed with Blount Disease, Diabetes, Asthma, and Prader-Willi Syndrome. His full scale IQ was 50 as measured by the Reynolds Intellectual Assessment Scales. Like Tyrone, Antwone also used a wheelchair to move from class to class but could also walk short distances. Because Antwone had recently transferred into his current school district, it was unknown what type of instruction he had received in his former school. However, he had not received any instruction in identifying post-school goals or delivering presentations in the past school year. All three participants were participating in a special education program following the extended content standards and pursuing a certificate.

Setting and Materials

This study took place at a high school serving both students with and without disabilities in a large, urban school district. The intervention was delivered in an empty classroom and when the classroom was not available, an empty hallway a few classrooms down from the class was used. The intervention was delivered 5 days per week and each session took approximately 20 to 45 min.

Five lessons were developed and delivered by the researcher. The lessons were created with PowerPoint® on a laptop computer and included pictures copied from free image hosting websites to illustrate the concepts and examples. At the end of lessons two through four there was a video modeling portion on how to deliver goals. A Flip Video Camera was used to film the video modeling instruction portion of the lesson and Videopad® video editing software was used to edit and put together the video modeling clips.

Interventionist and Second Observer

The interventionist and the observer in this study were both doctoral students from a nearby university. Both had experience teaching students with developmental disabilities and teaching self-determination and academic skills.

Dependent Variables

Data were collected on two dependent variables during each baseline session and at the beginning of each instructional session. The first dependent variable was a measure of participants’ ability to present their post-school goals. Participants were asked “What are your
goals after you finish high school?” and expected to present their post-school goals in each post-school outcome area (i.e., employment, postsecondary education, and employment) along with a rationale for each. A rubric based on the Presentation of Knowledge and Ideas anchor standard from the Common Core State Standards was used to evaluate this skill (see Table 1). Participants were evaluated on five components including stating their goal(s), stating their rationale(s), sequencing their presentation correctly, delivering relevant statements, and using appropriate presentation behaviors. Participants had the opportunity to earn partial points based on the level of prompting needed as described in the rubric and could earn a total of seven points for each presentation.

The second dependent variable was participant knowledge of post-school options. This probe consisted of 12, two-part scenarios requiring participants to apply knowledge they learned in the lessons. Scenarios were based on the concepts taught in the lessons and used the same format as the scenarios in the lessons but were not exactly the same. Scenarios tested (a) what a post-school goal was, (b) definitions of outcome areas, (c) employment-related vocabulary, and (d) options in postsecondary education and independent living. Each scenario asked participants to identify if the scenario was an example of the concept and for an explanation. Quinns just finished his college class and got a B for a grade. Did Quinn audit a class? No. How do you know? Probes were read to participants to control for reading difficulties, and participants were required to orally state the answer and did not receive any specific feedback or reinforce-ment. Participants could earn a total of 24 points per probe: one point for identifying points per probe: one point for identifying the knowledge of post-school options was set at 80% accuracy prior to the intervention beginning.

### Table 1

<table>
<thead>
<tr>
<th>Presentation Skill Rubric</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Component</strong></td>
</tr>
<tr>
<td>Presents findings</td>
</tr>
<tr>
<td>Presents supporting evidence</td>
</tr>
<tr>
<td>Sequencing</td>
</tr>
<tr>
<td>Relevant information</td>
</tr>
<tr>
<td>Behaviors and style</td>
</tr>
</tbody>
</table>
Interrater Reliability

Interrater reliability data were collected on both dependent variables, across all phases, using item-by-item scoring. A second observer was trained by asking participants not involved in this study their post-school goals after they graduate and training was conducted until 90% agreement was reached. Interrater reliability data on presentation skills were collected for 42% of probes and ranged from 70% to 100% with a mean of 89%. Interrater reliability data on knowledge of post-school options were collected for 29% of probes and ranged from 88% to 100% with a mean of 99%.

Social Validity

Social validity data were collected from participants, the classroom teacher, and extended community. Participants were asked their perceptions of the procedures and outcomes of the study through a five question survey which was read aloud while administered (see Table 2). The questions required a yes or no answer and also had thumbs up and thumbs down graphics to help aid comprehension. The classroom teacher was asked his perceptions of the outcomes based on participants’ ability to communicate their post-school goals in the informal transition meeting (see Table 3). The classroom teacher was also asked to observe a lesson being delivered and asked his perception of treatment acceptability.

Experimental Design

The experimental design was a single subject, multiple-probe across participants design (Tawny & Gast, 1984) and although data for

### TABLE 2

**Student Social Validity Data**

<table>
<thead>
<tr>
<th>Questions</th>
<th>Mean Rating</th>
</tr>
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<tbody>
<tr>
<td>I liked participating in these lessons.</td>
<td>1</td>
</tr>
<tr>
<td>These lessons taught me to tell people things in a professional way.</td>
<td>1</td>
</tr>
<tr>
<td>These lessons helped me plan for my future.</td>
<td>1</td>
</tr>
<tr>
<td>These lessons taught me things about life after graduation I did not know.</td>
<td>.66</td>
</tr>
<tr>
<td>I would like to learn more about my future.</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note.* 0 = no, 1 = yes

### TABLE 3

**Teacher Social Validity Data**

<table>
<thead>
<tr>
<th>Questions</th>
<th>Mean Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>This intervention helped the participant improve their ability to verbally communicate his or her goals and rationales.</td>
<td>5</td>
</tr>
<tr>
<td>This intervention helped the participant improve his or her ability to use appropriate presentation skills (e.g., eye contact, volume, rate of speech, no slang).</td>
<td>5</td>
</tr>
<tr>
<td>This intervention helped the participant to select post-school goals.</td>
<td>5</td>
</tr>
<tr>
<td>This intervention helped the participant increase his or her participation in informal transition meetings.</td>
<td>5</td>
</tr>
<tr>
<td>The intervention seems easy to implement.</td>
<td>5</td>
</tr>
<tr>
<td>The intervention seems easy to develop.</td>
<td>4</td>
</tr>
<tr>
<td>The intervention seems cost-effective.</td>
<td>5</td>
</tr>
<tr>
<td>I would use this intervention to teach other students these same skills.</td>
<td>4</td>
</tr>
<tr>
<td>I would use this intervention to teach students additional skills.</td>
<td>4</td>
</tr>
</tbody>
</table>

*Note.* 1 = I disagree, 2 = I somewhat disagree, 3 = I am neutral, 4 = I somewhat agree, 5 = I agree
both measures were graphed, instructional decisions were made based on presentation scores only. Participants entered intervention once they reached a minimum of five baseline points and data were stable or decreasing. In the intervention stage, the participants were required to score 80% correct on two sessions before they entered maintenance and the next participant was brought into intervention.

Procedure

Pre-baseline. Pre-baseline data collection procedures consisted of administering the presentation assessment to students to ensure they did not have presentation skills. Participants had to score below a five to be included in the study.

Baseline. Baseline procedures consisted of administering both the presentation skills probe and the knowledge of post-school options probe to participants with no additional feedback.

Intervention. Intervention consisted of five, teacher-delivered, PowerPoint® lessons. All five lessons included two parts. First, the lessons included direct instruction in post-school options information. The options for postsecondary education (i.e., compensatory education, college class, training program) and independent living (i.e., living alone, supported living, live in a group home) were identified through community mapping by surveying the options available in the community to the participants in this study. Because options in employment were based on job preferences, they could vary greatly from participant to participant. Therefore, instead of a select set of predetermined options, participants were guided through an employment interest inventory. This inventory was completed with guidance from the interventionist and asked participants to identify employment interests (e.g., working with animals, working outside) with pictures and was read aloud to the participants. All three lessons included teaching the definition of the outcome area and options for the outcome area.

The lessons consisted of an introduction lesson, instruction on the different outcome areas, and a booster session. Other than the introductory lesson, the remaining lessons had a similar format beginning with a review of the previous lesson, and a presentation of the new term and definition, or rule, for the concept. Participants were taught to apply the rule to example and non-example scenarios using a model lead test format and consisted of the instructor modeling applying the rule and then guiding the participant through several example and non-example scenarios. If participants made an error during this guided phase, the interventionist would model the correct answer and then repeat the scenario for the participant until they could answer it correctly. Once participants were able to apply the post-school outcome definition rule, they were then presented with more example and non-example scenarios of participants choosing a post-school option as their goal based on interests. Participants were then prompted to select one of the post-school outcomes as their post-school goal based on their interests. The last portion of the post-school options instruction included a review of concepts participants had difficulty mastering in the lesson.

The second part of each lesson was instruction on presenting post-school goals. This was taught through peers video-modeling. Peers were high school students without disabilities, unfamiliar to the participants and were selected based on age and their consent to participate as a video-model. The videos taught a five step strategy (a) introduce the presentation, (b) state the first goal, (c) state the reason the goal was selected, (d) add any additional ideas and details, and (e) summarize and ask for questions. In addition to this five-step strategy, participants were also taught to use appropriate presentation skills. The first lesson showed a video of a student presenting all three post-school outcome goals as an example of what the participants would be learning. The employment lesson just showed a presentation of an employment goal, the postsecondary education lesson had both employment and postsecondary education goals in the presentation, and the last lesson on independent living included all the goals being presented.

Except for the first lesson showing the video as an example with no instruction, all three other videos followed a similar format. Videos started with a full presentation and were then followed by a breakdown of each step of the
strategy including voiceover and written text. Participants were required to deliver each step individually and then present all steps together at the end. If a participant made an error when presenting his goals, he was immediately provided with specific verbal feedback, shown the clip again, and required to demonstrate the step correctly. If the participant continued to have difficulty, the interventionist would model the step for him.

**Booster sessions.** If a participant did not meet mastery criteria at the conclusion of four lessons, they were given booster lessons which specifically targeted the skills they had difficulty with. If participants were not able to master the post-school goals information, they were provided with booster sessions. Booster sessions were developed based on the specific needs of each participant and were administered after they completed the five lessons. Nick participated in seven booster sessions and Tyrone participated in one booster session.

**Maintenance and generalization.** Maintenance data were collected on participants’ ability to deliver their goals with the researcher over time and had similar procedures as during pre-baseline. Maintenance probes were given 1 and 3 weeks after the intervention had ended.

Generalization data were collected, both pre- and post-intervention, to determine participants’ ability to generalize their ability to deliver their post-school goal presentation in an informal transition meeting. This meeting was conducted with the participants and the classroom teacher.

**Treatment Integrity**

Treatment integrity data were gathered during 27% of the lessons across all phases and participants. Data were gathered using a checklist of instructional steps for each lesson and data were calculated using a step-by-step method. Treatment integrity ranged from 92% to 100% with a mean of 96% across all phases and participants.

**Results**

Findings for each participant are presented in Figure 1. Visual analysis of the graph indicates a functional relation between post-school options instruction and presentation skills; however, only one participant improved their knowledge of post-school options.

**Nick**

During baseline, Nick’s presentation skills scores ranged from 22% to 33% with a mean of 25% of points earned on the rubric. During intervention, Nick’s presentation skills scores ranged from 33% to 90% with a mean of 54%. He had difficulty identifying his first goal he received instruction on, employment, but as the lessons progressed, he was able to identify both his postsecondary education and independent living goals with fewer lessons. Nick was able to maintain his presentation skills with scores of 90% and 85% at 1 and 3 weeks after the completion of the intervention. Nick’s pre-intervention presentation generalization score was 22% while his post-intervention generalization score was 90%.

During baseline, Nick’s scores on knowledge of post-school options, ranged from 17% to 33% with a mean of 29%. During intervention, Nick’s knowledge scores ranged from 25% to 38% with a mean of 30%. His answers were consistent with his baseline answers; he continued to answer yes to most every question and could not identify his reason for any of his answers. Because Nick did not gain knowledge of post-school options, maintenance probes were not administered.

**Tyrone**

During baseline, Tyrone’s presentation skills scores ranged from 22% to 44% with a mean of 31% of points earned on the rubric. During intervention, Tyrone’s presentation skills scores ranged from 39% to 88% with a mean of 63%. He had some difficulty remembering to provide a rationale for his goals and often needed to be asked why he chose his goals. Tyrone was able to maintain his presentation skills with scores of 85% at 1 and 3 weeks after the completion of the intervention. Tyrone’s pre-intervention presentation generalization score was 22% while his post-intervention generalization score was 50%.

During baseline, Tyrone’s scores on knowl-
edge of post-school options, ranged from 21% to 33% with a mean of 28%. During intervention, Tyrone’s knowledge scores ranged from 13% to 33% with a mean of 24%. Similar to Nick, his answers during intervention were similar to his answers during baseline and he made no obvious improvement with any of the concepts. Because Tyrone did not gain knowledge of post-school options, maintenance probes were not administered.

Antwone

During baseline, Antwone’s presentation skills scores ranged from 33% to 50% with a mean of 40% of points earned on the rubric. During intervention, Antwone’s presentation scores ranged from 28% to 90% with a mean of 51%. Of the three participants, Antwone made the fastest progress with his presentation skills but did have difficulty remembering “compensa-
tory education” and “supported living.” Antwone was able to maintain his presentation skills with scores of 95% and 90% at one and three weeks after the completion of the intervention. Antwone’s pre-intervention generalization score was 44% while his post-intervention generalization score was 89%.

During baseline, Antwone’s scores on knowledge of post-school options, ranged from 29% to 42% with a mean of 38%. Of the three participants, Antwone was the only one to increase his knowledge of post-school options; however, he did not meet mastery for this dependent variable. During intervention, Antwone’s knowledge scores ranged from 33% to 65% with a mean of 50%. As Antwone progressed through the lessons, his performance on the probe improved and he would often verbalize the rule without being asked (i.e., when asked about employment, he would reference being paid). Antwone was able to maintain his knowledge of post-school options with scores of 63% at 1 week post-intervention and 50% at 3 weeks post-intervention.

Social Validity Data

Social validity data indicated participants enjoyed participating in the lessons and learned about their future and communicating that with others with all three participants agreeing with four of the five statements (see Table 2). Additionally, the classroom teacher agreed with statements regarding the improvement in skills for all three participants; however, he only somewhat agreed with the ease of the development of the intervention and whether he would use the intervention with other students (see Table 3).

Discussion

The purpose of this study was to examine the effects of post-school options instruction on the knowledge of options and ability to orally present personal post-school goals for high school students with developmental disabilities. Results indicated all three participants met the mastery criteria for delivering their post-school goals as a presentation; however, only one of the two participants were able to learn their post-school options. Additionally, participants were able to generalize their post-school goal presentations to informal transition meetings along with maintaining those skills over time. Finally, both students and teachers indicated they found the instruction appropriate and participants agreed they were able to learn from it. This research confirms previous research indicating high school students with developmental disabilities can orally present post-school goals through the use of post-school options instruction (Mazzotti et al., 2009; Richter & Test, 2011).

This study extends literature in several areas of teaching students with disabilities academic and secondary transition skills. First, while research has indicated students with learning disabilities can learn presentation skills (Scheeler et al., 2010), the current study extends this to students with developmental disabilities. Second, research suggests students with disabilities can learn a variety of academic skills (Browder, Wakeman, Spooner, Ahlgrim-Delzell, & Algozzine, 2006) but has not included presentation skills. Research on presentation skills is particularly critical due to the inclusion in the Common Core State Standards.

Third, this study extended both presentation skills and video modeling literature. Video modeling has been used to teach a wide variety of skills (Bellini & Akullian, 2011); however, the current study extends the video modeling base to include presentation skills. Additionally, the existing research examining presentation skills for students with disabilities has been limited to bug-in-ear feedback (Scheeler et al., 2010), while this study extends that literature base to include video modeling.

Fourth, this study is similar to previous research teaching presentation skills in the context of transition planning; however, this study directly measured presentation skills while previous research has only measured transition planning (Kelley, Bartholomew, & Test, 2013). In addition, research that does measure both academic and transition skills has focused primarily on self-determination as the transition skill (Agran, Cavin, Wehmeyer, & Palmer, 2008; Konrad & Test, 2007), while the current study introduced participation in transition planning as an additional context.

Although the inclusion and measurement
of both academic and transition skills in this study makes a contribution to the current literature, it is important to note data in this study indicated that while participants were able to set goals; only one of three participants was able to acquire knowledge of post-school options. Without knowledge of options, it is possible participants were not making choices based on their preferences (i.e., informed choice) and were just restating goals the instructor helped them identify during the lessons. While choice-making is often considered the starting point for self-determination, (Agran, Storey, & Krupp, 2010), additional elements are critical to ensure informed choice including not only knowledge, but also appropriate supports, and self-determination skills (Storey, 2005).

Additionally, Agran et al. (2010) suggested for an individual to make an informed choice for post-school life, they must identify goals that can be supported after high school. Although community mapping was used to identify options in the community, without family or adult service agency input, it was unknown if these options were truly available to participants.

Results indicated participants’ ability to generalize their presentation of post-school goals to informal transition meetings with their teachers was variable. While all three participants improved their ability to generalize their oral presentations skills from baseline to post-intervention, only two participants (Nick and Antwone) scored above mastery criteria of 80% while Tyrone scored 50%. It is important to note Tyrone had expressed he was nervous when told he would be presenting his goals to his teacher. Although Tyrone had been able to present his goals to the instructor, it is possible he experienced some level of fear of public speaking when having to present the goals to his teacher. Public speaking anxiety is a common fear among the general population and will often interfere with the ability to deliver presentations, even if the person has acquired the skills to present (Bodie, 2010). While Tyrone was able to deliver his presentation adequately to the instructor, his public speaking anxiety may have interfered with his ability to present the goals to his teacher.

The current study is in contrast with existing literature indicating students with disabilities can learn post-school options (Mazzotti et al., 2009; Richter & Test, 2011). This could be due to several reasons. First, instruction in the previous two studies differed from the current study. In the current study, participants were first taught definitions of concepts and then how to apply the information using rule relationships (Kameenui & Simmons, 1990). A rule relationship is “a proposition that specifies a connection between at least two facts, discriminations, or concepts” (Kameenui & Simmons, 1990, p. 180). Understanding rule relationships requires a set of skills from students including understanding the concept they are learning about, applying their knowledge to if/then relationships, and finally remembering the concept and rule. Rule relationships have the benefit of being efficient as students do not have to be taught the full range of examples and non-examples of a concept, rather they are taught the rule and should be able to apply the rule to any example or non-example they encounter (Kameenui & Simmons, 1990).

In contrast, in previous research, both Mazzotti et al. (2009) and Richter and Test (2011) taught participants the concept with computer-assisted instruction and tested this by asking them to recall the definition. They did not require participants to apply their knowledge and discriminate between examples and non-examples of the concepts. It is possible participants in the current study had difficulty with one, or all three skills required to be learned and apply the rule relationships. While it is possible participants could have learned to recall the information, this study measured participants’ higher level knowledge of information through application of the content to rule relationships.

Another possible reason for the difference between the results in the current study and previous research teaching post-school options is there may not have been enough instruction on each concept. Students with developmental disabilities often need information broken down into smaller concepts combined with repetition with the material (Snell & Brown, 2010). The current study taught post-school options in three outcome areas along with presentation instruction in four unique lessons. While participants were
provided with the opportunity to review and repeat lessons, it is possible participants were not able to maintain engagement with the material because of lack of repetition. Although this research is in contrast with previously conducted research, data collected on social validity are consistent with previously identified results on students liking the instruction (Mazzotti et al., 2009; Richter & Test, 2011) and teaching transition planning in general (Kelley et al., 2013; Konrad & Test, 2004).

Limitations and Suggestions for Future Research

This study has both limitations and implications for future research. First, the current instructional package on post-school options was not effective at teaching participants knowledge of their post-school options. While previous research has demonstrated students can learn to recall their options (Mazzotti et al., 2009; Richter & Test, 2011), future research should be conducted to determine how best to instruct students with developmental disabilities to apply knowledge to ensure they are making meaningful choices reflecting their post-school vision.

Second, this study relied primarily on verbal instruction to teach students about their options for post-school life. Storey (2005) argues for individuals with disabilities to make informed choices; however, they must be provided with experiences to fully grasp concepts and anticipating post-school supports when identifying viable options. Research is needed to identify essential instructional elements such as community-based instruction (Walker, Richter, Uphold, & Test, 2010), multi-media (e.g., video simulations; Wissick, Gardner, & Langone, 1999), and anticipated supports when teaching about post-school options.

Third, the current study did not measure participants’ ability to generalize their presentation skills to actual IEP meetings or other presentation topics. Additionally, the current study investigated the effects of teaching participants a five step process for delivering a presentation; however, participants’ ability to generalize their skills to other topics other than post-school goals was not measured. Future research should investigate how to design instruction so that skills generalize to authentic settings such as a real IEP meeting and additional opportunities such as classroom presentations on academic topics.

Fourth, all three participants in this study were not able to fully generalize their presentation skills to an informal transition meeting with their teacher. Because it is possible public speaking anxiety may have interfered with the participant’s ability to generalize and research has indicated individuals can overcome their public speaking anxiety with a variety of techniques (e.g., systematic desensitization, cognitive modification, and visualization; Bodie, 2010), additional research into presentation skills should incorporate a component to decrease anxiety when presenting.

Finally, the single subject experimental design with three, male, African American high school students used in this study limited the generalizability of results. Therefore, future systematic replications should focus on including participants from a variety of cultural backgrounds, as well as females in order to extend the generality of future findings.

Implications for Practice

Based on the results of this study, several implications for practice are offered. First, this study indicates it is possible for students with disabilities to learn academic skills within a functional context. Given the mounting pressure on classroom teachers to teach all students academic content standards, this provides an avenue for continuing to help students identify their post-school goals while also addressing a standard from the Common Core State Standards.

Second, the findings of this research provide an additional example of how to teach presentation skills, specifically to participants with developmental disabilities. With the advent of affordable and portable electronic devices, video modeling has the potential to become a common instructional method for teaching a variety of skills. This study has provided preliminary evidence that presentation skills can be one of those skills. However, rather than solely focusing on presentation skills, teachers should include an aspect of dealing with public speaking anxiety to ensure students are able to deliver their presentations to a larger audience.
Third, when teaching students to identify their post-school goals, classroom teachers should design instruction to ensure students are fully informed of what their options are. In addition to using rule relationships, teachers should identify ways to use both community-based instruction and video simulations. For example, when a student is learning about his or her options in postsecondary education, they can first visit the options (e.g., compensatory education, college class) and then in the classroom be provided with the rule of what the options are.

In addition to teaching a combination of rule relationships, community-based instruction, and simulations, it may be advisable to focus on one aspect of the content at a time rather than three outcome areas and presentation skills. For example, teachers could provide instruction to students on identifying their post-school goals in one outcome area and also presentation skills over the course of four lessons. This would provide teachers the opportunity to repeat the information in a variety of ways (i.e., both rule relationships and video simulations) and chunk the information into small pieces.

In conclusion, participants in this study were able to deliver their post-school goals in a presentation format. Although all three participants identified post-school goals in their presentations, because only one participant was able to acquire knowledge of post-school options, it is not known whether these were meaningful choices. Further research is needed identifying additional ways to teach both sets of skills to students with disabilities.

References


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