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From Knowledge to Application: Effects of Performance Feedback and Goal-Setting on Pre-Service Teacher Implementation of Evidence-Based Practice

**Caitlin J. Criss, Ph.D.
Stephanie M. Devine, Ph.D.
Cynthia C. Massey, Ph.D.**

Georgia Southern University

Abstract

Teacher implementation of evidence-based practices (EBPs) is critical for student success, yet a gap remains between research to practice. Two EBPs that specifically promote student engagement and positive behavior are specific praise (BSP) and active student responding (OTR). Unfortunately, many classroom teachers, specifically pre-service teachers, struggle with implementing EBPs. While the caseload demands continue to increase for university field supervisors, educator preparation programs are tasked with finding effective and efficient ways to provide feedback to pre-service teachers. The purpose of this study was to evaluate the effectiveness of written performance feedback and goal setting on increasing evidence-based classroom management practices with special education pre-service teachers. Using a single-case multiple probe design, researchers found that all pre-service teachers increased their rate of BSP and OTR after receiving performance feedback with and without goal setting by email. Results from social validity, limitations, and directions for future research are also discussed.

Keywords: Positive behavior supports, classroom management, teacher training, pre-service teachers

From Knowledge to Application: Effects of Performance Feedback and Goal-Setting on Pre-service Teacher Implementation of Evidence-Based Practice

The use of evidence-based practices (EBPs) in the classroom is essential for student success (Simonsen et al., 2008); however, a gap exists between the research and practice. Special educator preparation programs work to ensure their graduates are prepared to teach an increasingly diverse group of students in rigorous settings that best meet their students' individual needs using EBPs (Ennis et al., 2020). EBPs are strategies that have proven effective through high-quality experimental research and thorough analysis via systematic peer review by researchers in the field (Cook et al., 2016). Mastering EBPs is vital for pre-service teacher success as well as to improve the outcomes of the students they teach (Schles & Robertson, 2017). Although it is considered best practice for teachers, including pre-service teachers, to use EBPs, there are often barriers to implementing EBPs in educator preparation programs. Educator preparation programs are plagued with decreasing required credits and limited time in the field to apply and generalize these EBPs in their field placements. Unfortunately, this issue is compounded by research that states EBPs in the classroom setting typically occur with low fidelity (Schles & Robertson, 2017). There are many resources needed to train classroom

teachers to use EBPs with high fidelity, including “time, energy and money,” therefore, educator preparation programs need to provide this training during pre-service teachers’ field placements (Schles & Robertson, 2017, p. 36).

The need for time spent applying EBPs in the classroom is reiterated in initial preparation standards for pre-service teachers, including the Council for Exceptional Children’s Initial Preparation Standards (CEC: IPS). The CEC ISP explicitly addresses the impact pre-service teachers have on creating a positive classroom culture through the use of EBPs. Despite the inclusion of EBPs in special education programs, courses such as “Classroom Management,” which focuses on behavioral skills, often do not include field experience. Researchers have found that pre-service teachers often fail to generalize the EBPs taught in these courses to their field placements, causing them to feel unprepared as in-service teachers (Freeman et al., 2014).

Evidence-Based Classroom Management Practices

Many evidence-based classroom management practices increase student engagement and academic success, thus creating a positive classroom environment (Reinke et al., 2008). This study focused on two EBPs, behavior-specific praise (BSP) and active student responding in the form of opportunities to respond (OTR); both have proven to effectively reduce students’ off-task behavior (Pas et al., 2015). BSP is the recognition of appropriate behavior by a teacher after a student or students’ behavior has occurred. BSP acknowledges the desired behavior with reference to the specific action exhibited (e.g., “Sam, great job! You raised your hand to answer this question.”). Increasing the use of BSP in a classroom is essential for educators because it creates a positive school and classroom environment. Researchers have studied methods for increasing teachers’ rate of BSP in the classroom and found that the typical use of BSP is far below the recommended ratio of five BSP statements to one general praise statement (Cook et al., 2016; Ennis et al., 2020). More importantly, in a multi-level analysis of teachers’ discrete classroom management skills, researchers found that BSP was the only significant predictor of positive student behavioral outcomes (Gage & MacSuga-Gage, 2017).

This study also centered on improving pre-service teachers’ use of active student responding (i.e., OTR). OTR increases the likeliness that a student will produce the correct response, thus improving his/her understanding of the content; OTR also positively impacts student engagement and decreases problem behaviors (Common et al., 2020; Sutherland et al., 2003). OTR involves a teacher providing a student or students with a prompt (e.g., asking a content question) to elicit a response (e.g., a student answer; Common et al., 2020). Researchers have reviewed the literature on OTR and found that an increase in OTR significantly impacted students’ engagement and academic achievement (Common et al., 2020).

A critical factor in the use of OTR is the rate at which OTR are provided. In 1989, the CEC released guidelines for educators regarding optimal rates of OTR, which state that teachers should provide students with four to six OTR per minute when introducing new content, and students should respond with an accuracy rate of 80% (CEC, 1989). In a review of OTR literature, MacSuga-Gage and Simonsen (2015) recommended 3-5 OTR per minute for direct instruction and drill and practice activities. Among the benefits described above for improving students’ rate of response, OTR also allows teachers to use student responses to guide their instruction, thus increasing their effectiveness as educators (CEC, 1989; Sutherland et al., 2003).

Despite the prevalence of research on BSP and OTR, there is little literature on the effectiveness of coaching pre-service teachers to use these EBPs in the classroom setting, which increases the likelihood that they will use these strategies in their classrooms (Scott et al., 2014). In a recent literature review by Schles and Robertson (2019), five studies on pre-service teacher coaching were found. Each indicated a functional relation between performance feedback provided through coaching/mentoring and pre-service teachers' use of EBPs with fidelity. Based on the minimal amount of available data, there is a continued need to pursue this topic.

Coaching, Including Performance Feedback

Coaching opportunities can be crucial to the success of pre-service teachers as they debrief situations that occur within their placement and make necessary adjustments to their approach to instruction (Scott et al., 2014). These coaching opportunities can bridge the gap between pedagogical knowledge and the application of EBPs for classroom behavior (Ennis et al., 2020). Researchers have found that ongoing coaching sessions, when combined with additional practices, including engaging group instruction with follow-up observations and performance feedback, created successful outcomes for both in-service and pre-service teachers (Ennis et al., 2019, 2020). More specifically, studies have found that ongoing coaching increases teachers' provision of both BSPs and OTR to students (Schles & Robertson, 2017). One method for delivering feedback while coaching teachers is using performance feedback.

Sleiman and colleagues (2020) reviewed performance feedback and found that this intervention can positively impact performance across both behaviors and settings, including the educational classroom and other professional fields. Researchers state that practitioners should consider the various components of performance feedback when determining the most effective treatment package (Ennis et al., 2019; Fallon et al., 2015). For example, researchers and coaches should consider the type of performance feedback and the method the teacher will receive the feedback. Performance feedback can be delivered via written or email format, face-to-face observations, immediate auditory conferencing (e.g., Bug-in-Ear Coaching), delayed video conferencing (teacher records in the moment and receives feedback later), or self-monitoring (Ennis et al., 2019, 2020; Schles & Robertson, 2019). Another performance feedback consideration includes the teacher and coach setting improvement goals to increase the number of times an EBP is used (Ennis et al., 2019, 2020; Sleiman et al., 2020).

Goal Setting and Performance Feedback

Goal setting is an effective practice often used to improve student academic performance (Simonsen et al., 2017). It has been included in performance management plans to measure student engagement (Gage & MacSuga-Gage, 2017), increase teachers' rate of BSP (Simonsen et al., 2017), and increase teachers' rate of BSP and OTR with teachers at an alternative school (Criss et al., 2023); yet, there are very few studies that evaluate the effectiveness of goal setting with pre-service teachers. McLeod et al. (2019) did find that training and video-based email feedback with goal setting were effective in increasing pre-service teachers' use of EBPs in an early childhood setting. Despite these promising results, little is known about the effects of performance feedback and goal setting with pre-service teachers in the K-12 classroom.

In a recent meta-analysis of performance feedback, Sleiman and colleagues (2020) found that goal setting had the highest effect when added to a performance feedback treatment package compared to other feedback combinations, such as feedback alone. Moreover, Criss et al. (2022) found that when teachers are involved in identifying an appropriate performance goal, teachers have higher rates of responding and improved outcomes. Researchers found that teachers should be involved in the goal-setting process, and goals should be discussed throughout the feedback phase to be most effective (Criss et al., 2022).

Research is needed on effectively teaching pre-service teachers to apply essential classroom performance skills critical to their teaching success (Freeman et al., 2014). To address a significant gap in the literature between classroom management and teacher training, this study focused on coaching special education pre-service teachers via performance feedback and goal setting to increase their rate of BSP and OTR within their field placement. The study posed the following questions:

1. What are the effects of providing training and performance feedback with goal setting on rates of BSP and OTR for pre-service teachers in the traditional classroom setting?
2. What are pre-service teachers' perceptions of receiving feedback by email?
3. What are the university supervisors' perceptions of receiving feedback by email on OTR and BSP from their student teachers?

Method

Participants and Setting

Four pre-service special education teachers supporting learners in public schools in the southeastern United States participated in this study. Participants were Caucasian females between the ages of 21 to 23. Before recruiting participants, researchers discussed the project and obtained permission from district administrators at the school districts where the special education pre-service teachers were placed. To recruit pre-service teachers, the first author presented the research opportunity at a student teaching seminar prior to the start of the semester.

Participants who received the intervention were (a) full-time pre-service teachers majoring in special education and in good academic standing with the university, (b) had an interest in receiving performance feedback to improve their classroom management skills, and (c) had low or inconsistent rates of BSP or OTR during baseline observations (i.e., below a rate of 1.0 per min. for BSP or 3.5 per minute for OTR). The participants did not receive any incentive to participate besides performance feedback on their classroom management practices. The pre-service teachers were all under the supervision of a classroom mentor teacher and university supervisor. While the mentor teachers were present in the classroom during all observations, the pre-service teachers provided all the instruction at the time of data collection. Additionally, to avoid bias, their university supervisor was only informed of which pre-service teachers were selected for participation once they graduated. The university supervisor was not present during any observations and only provided information regarding social validity after data collection was complete.

Tanya. The first participant, Tanya, taught in an elementary high-incidence resource classroom with an average of six students (range = 3–10). All students in the class qualified or were being evaluated for special education services. Tanya’s Title One school served 716 students, kindergarten through fifth grade. Tanya’s observations occurred two to three times a week in a fourth-grade morning whole-group reading and math instructional period. Tanya’s baseline lasted two weeks and her intervention lasted two months.

Natalie. Natalie’s observations took place in a fifth-grade inclusion classroom. Observations occurred when Natalie led whole-group science instruction with an average of 19 students (range = 14–21). Natalie’s school was a rural Title One school serving 660 kindergarten through fifth-grade students. Natalie’s observations occurred two to three times a week in the morning and her baseline observations lasted one week and her intervention lasted one month.

Juliet. Juliet was placed in an elementary high-incidence resource classroom. Juliet’s observations took place during reading and phonics instruction with first-grade students. During observations, an average of four students were in the class (range = 3–5). Also located in a rural community in the southeast, Juliet’s Title One school served 1,048 students in grades kindergarten through fifth. Juliet’s observations occurred two to three times a week in the morning. Baseline data for Juliet lasted two months, and intervention lasted seven days.

Carolina. Carolina was placed in a high school resource science classroom. Her observations occurred during 10th and 11th-grade Biology instruction with an average of seven students (range = 4–9). Carolina’s school served students in grades ninth through 12th, and observations occurred three to four times a week. Due to the time constraints at the end of the school year, Carolina’s observations occurred two times a day. The first observation took place during the first and the second during the fourth, after Carolina had a planning period. Caroline was in baseline for two months and in intervention for three weeks.

Definition and Measurement of Dependent Variable

The two dependent variables measured in this study were BSP and OTR. Both dependent variables were measured using event recording, reported as a rate (total number of BSP or OTR divided by the number of session minutes), and were based on in-person observations.

BSP. BSP was defined as a praise statement paired with a specific behavior or performance. Every instance in which a teacher provided a BSP was recorded during observations. Examples included “Great job following my directions” and “Thank you for cleaning off your desk.” Specific praise was also counted if the participant praised the entire group of students (e.g., “Wow! I see everyone is ready to start the review game.”). If the participant only provided a general praise statement (e.g., “Nice job!”), the statement was not counted as BSP. Additionally, behavior narrative statements such as “I like how you raised your hand” were not counted.

OTR. The second dependent variable was the rate of OTR. OTR procedures included opportunities in which the teacher (a) presented materials, (b) asked students questions, (c) promoted student responses through various modalities, and (d) provided immediate feedback (Common et al., 2020). OTR could be teacher-mediated or peer-mediated. This included opportunities to read aloud, questions directed to the whole group or individuals, repeating questions, and rephrasing questions. Nonverbal cues such as pointing or gesturing to a student to begin a task were counted.

Procedures

Baseline

Following procedures from Criss et al. (2023), all pre-service teachers were observed during their typical instruction 2 to 4 days a week during baseline. Researchers recorded the teacher's rates of BSP and OTR and did not interact with the pre-service teacher. Observations were typically 15 minutes (range = 8–15); however, some observations were shorter due to classroom interruptions, shortened periods, or schedule changes.

Pre-intervention Training

Participants received pre-intervention training on how to deliver BSP and OTR using behavior skills training (Kirkpatrick et al., 2019). Training procedures included instruction, modeling, rehearsal, and feedback on how to deliver BSP and OTR within their respective classrooms. The first author led the online training one-on-one with each pre-service teacher using a PowerPoint Presentation. The training provided grade-level strategies to increase BSP and OTR in the classroom, including technology, response cards, guided notes, and partner work. Each training session lasted 10 to 20 minutes, and pre-service teachers practiced by role play with the first author until mastery was met. Mastery was defined as three consecutive appropriate uses of BSP and OTR during the rehearsal phase. All four participants met mastery criteria during the initial training; therefore, additional training was not required. During the final training step, pre-service teachers were shown a graph of their baseline data and asked to identify a goal for either BSP or OTR, as assigned. The dependent variable (DV) in which pre-service teachers selected a goal was randomly chosen and counterbalanced across participants. For example, the first participant, Tanya, was randomly selected to set a goal for the rate of OTR but not BSP. The second participant, Natalie, was instructed to set a goal for the rate of BSP but not OTR, and so on. The researcher suggested optimal rates based on baseline data and previous research, and then pre-service teachers identified their own goals. Once training was completed, participants entered the intervention phase.

Performance Feedback With Goal Setting

Similar to baseline conditions, observations occurred during regular classroom instruction for approximately 15 minutes, and data were collected on participants' rates of BSP and OTR. The first author provided feedback to pre-service teachers on their rates of BSP and OTR by email immediately after their observations. The feedback was sent to participants 30 minutes to 1 hour after the observation. Email feedback with goal setting included (a) examples of correct delivery and missed opportunities of BSP and OTR, (b) suggestions for increasing rates, (c) description and graph of present performance including a goal line, (d) description of teacher's progress toward meeting the goal, and (e) a reminder of the definition of BSP and OTR. Pre-service teachers were asked to read the email prior to the following observation.

Performance Feedback Without Goal Setting

Occurring simultaneously with the performance feedback with goal setting phase, participants also received performance feedback on the DV in which they did not set a goal. Similar to the goal-setting condition, teachers received email feedback on their performance; however, the feedback did not include progress toward meeting a goal. For example, if a teacher set a goal for their rate of OTR, they received performance feedback with goal setting on their rate of OTR and performance feedback only on their rate of BSP. Both performance feedback with and without

goal setting were delivered in the same email. The same data collection form was used during all phases. Observers used the form to record instances of OTR and BSP, examples and missed opportunities during the observation.

Generalization and Maintenance

Generalization measures were taken for Tanya and Natalie during a different class or content area for the teacher and followed the same procedures as baseline. Participants did not receive feedback after their generalization observation. Generalization measures were not collected for Juliet or Carolina due to schedule conflicts.

Due to time constraints (e.g., only ten weeks in placements, school schedule conflicts such as spring break and school programming), maintenance measures were collected for only two participants, Natalie and Juliet. During maintenance, observers followed the same procedures as baseline and did not provide email feedback after the observation. Natalie's maintenance observation occurred three weeks after her last feedback email in intervention and Juliet's maintenance observation occurred two weeks after intervention.

Experimental Design

A single-case multiple probe design across participants (Cooper et al., 2020) was used to evaluate the effectiveness of performance feedback with and without goal setting on pre-service teachers' classroom management practices. Similar to Criss et al. (2022), the two treatments were randomly counterbalanced across participants. For example, researchers flipped a coin and determined that the first participant set a goal for their rate of OTR and did not set a goal for BSP, and the second participant set a goal for their rate of BSP and did not set a goal rate for OTR.

All participants began baseline at the same time, and after approximately four to nine baseline sessions, the pre-intervention training began for the participant with the most stable data. After training on BSP and OTR and setting a goal for the rate, the first participant began intervention. Once intervention data demonstrated a steady increase, baseline probe observations were conducted with all other participants to determine the next candidate for intervention. This process continued until each participant entered the intervention phase. Observation sessions were consistent for class and time of day for each participant. The exception was the generalization probes, which were observed during different class periods. All interventions were implemented by the first author, a former special education teacher, and administrator with eight years of experience and who is currently an Assistant Professor of Special Education.

Data Analysis

Researchers analyzed data in several ways. First, data were examined using visual analysis to look at the level, trend, and variability in the data (Cooper et al., 2020). Second, the percentage of non-overlapping data points (PND) was also used. PND is a summary statistic useful for interpreting results in a single-case design. PND is calculated by counting the number of intervention data points higher or lower than the highest or lowest baseline point, then dividing that number by the total intervention points (Riley-Tillman & Burns, 2009). Finally, the effect size was calculated using Tau-U. Tau-U is an effect size index indicating the percent of data that has improved over time between baseline and intervention after controlling any trend in the

baseline (Parker et al., 2011). A Tal-U value and its standard error were found using an online calculator (Vannest et al., 2016; <http://www.singlecase-research.org/calculators/tau-u>).

Interobserver Agreement

Interobserver agreement (IOA) was collected for both dependent measures during baseline and intervention. For IOA, a second observer was present for Tanya and Carolina's observations. Natalie and Juliet's observations were recorded, and a third observer reviewed those video observations. Both additional observers were special education faculty members at a university. They were trained on IOA by reviewing the operational definitions of BSP and OTR, viewing videos, then participating in several practice opportunities that ended with the observers and the primary data collector above 90% agreement. Total count IOA was used to calculate agreement between observers using the following formula: smaller count divided by larger count multiplied by 100. During baseline, IOA was 100% for BSP and 74% (range: 50%–95%) for OTR. During intervention, IOA was 91% (83%–100%) for BSP and 92% (63%–100%) for OTR. IOA was not collected for maintenance or generalization measures.

Procedural Fidelity

Procedural fidelity data were collected on the training and written feedback emails using a checklist. The second author completed all procedural fidelity across training and emails. Training for two participants were recorded and procedural fidelity was completed for one participant. Procedural fidelity for the training was 100%. For written performance feedback emails, the observer was copied on 55% of emails sent after observations during the intervention and marked on the checklist whether the email included each component of the email feedback protocol. Overall procedural fidelity for email performance feedback across all participants was 100%. The procedural fidelity checklist is available upon request from the first author.

Social Validity

After all observation data collection was completed, pre-service teachers and their university supervisor completed a social validity questionnaire on the treatment package using an adapted Intervention Rating Profile-15 (IRP-15; Martens et al., 1985). Designed to measure treatment acceptability of student-focused behavior interventions, the IRP-15 was adapted to reflect the teacher-focused intervention targeting BSP and OTR. The university supervisor was not informed of the participants until the pre-service teachers graduated. Teachers answered 23 questions related to the acceptability of the treatment package on a scale of 1 (strongly disagree) to 4 (strongly agree). See Table 2 for a list of the questions and results from the teacher questionnaire. The university supervisor assigned to all participants also completed a social validity questionnaire.

Results

Data for teacher implementation of BSP and OTR are represented in Figure 1 and Table 1. Subsequent sections include a visual analysis of the results of performance feedback on BSP and OTR during intervention compared to baseline. Effects were demonstrated and replicated for written performance feedback on teacher performance compared to baseline; however, effects were inconsistent when comparing the effects of goal setting and performance feedback and

performance feedback alone.

Table 1

Descriptive statistics of pre-service teacher rates of BSP and OTR across phases

Teacher	Independent Variables	DV	Baseline		Intervention		% Change	Change in Rate	Tau-U
			<i>M</i> (<i>SD</i>)	Range	<i>M</i> (<i>SD</i>)	Range			
Tanya	Performance Feedback + Goal Setting	OTR	2.29 (0.29)	1.80–2.53	3.73 (0.80)	2.33–5.33	39%	1.44	0.97
	Performance Feedback	BSP	0.22 (0.10)	0.07–0.30	1.16 (0.37)	0.53–1.86	81%	0.94	1.00
Natalie	Performance Feedback + Goal Setting	BSP	0.14 (0.06)	0.07–0.25	1.57 (0.63)	0.47–2.4	91%	1.43	0.84
	Performance Feedback	OTR	2.5 (0.79)	1.73–4.08	3.37 (0.69)	2.60–4.53	26%	0.87	0.47
Juliet	Performance Feedback + Goal Setting	OTR	3.83 (0.91)	2.93–6.76	5.12 (0.93)	3.1–6.47	25%	1.29	0.49
	Performance Feedback	BSP	0.21 (0.18)	0.00–0.47	0.62 (0.24)	0.33–1.00	66%	0.41	0.86
Carolina	Performance Feedback + Goal Setting	BSP	0.05 (0.07)	0.00–0.13	1.04 (0.32)	0.53–1.60	95%	0.99	1.00
	Performance Feedback	OTR	3.05 (1.05)	1.82–4.40	3.38 (0.60)	2.20–4.76	10%	0.33	0.31
Overall Tau-U		BSP							0.93
Overall Tau-U		OTR							0.53

Effects of Performance Feedback With and Without Goal Setting

Tanya. During baseline, Tanya's mean rate was 0.22 (range = 1.80–2.53) for BSP and 2.29 (range = 0.07–0.30) for OTR. Immediately after training and before the first feedback, Tanya's rate of OTR was similar to baseline. However, her rate of BSP demonstrated a clear increase after the training and goal setting. Tanya set a goal of 3.5 for her rate of OTR during the training. During intervention, Tanya's mean rate increased to 3.73 (range = 2.33–5.33) for BSP and 1.16 (range = 0.53–1.86) for OTR. Tanya's rates demonstrated some variability during intervention with both OTR and BSP. Tanya met her goal for OTR after one performance feedback email and only fell below her goal once during intervention. Additionally, when comparing overlapping data between baseline and intervention, there was no overlapping data for BSP (Tau-U = 1) and a low percentage of non-overlapping data (PND = 10%; Tau-U = .97) for OTR. During Tanya's generalization measures, her rate of BSP was 1.73, and OTR was 3.00. Due to time constraints, maintenance measures were not collected for Tanya.

Natalie. Natalie's rate of BSP during baseline was 0.14 (range = 0.07–0.25) and 2.5 (range = 1.73–4.08) for OTR. Natalie's rates showed variability during baseline, specifically her rate of OTR. However, before beginning intervention, her rate of OTR was on a descending trend. During training, Natalie set a goal of 1.0 for her rate of BSP. Immediately after training, Natalie's rates of OTR and BSP went up slightly, and her rate of BSP continued to increase.

However, she did not meet her goal until after receiving her first performance feedback email. She maintained her goal during intervention. During intervention, Natalie's rate of OTR decreased, and after three observations with a decreasing rate of OTR, we implemented a goal for Natalie. This goal was selected by researchers and set to a rate that was within her intervention range but an increase from her baseline range. After setting a goal of 3.0 for OTR, Natalie's rate improved and maintained above that goal for three consecutive observations. During intervention, Natalie's overall mean rate for BSP was 1.57 (range = 0.47–2.4) and 3.37 (range = 2.60–4.53) for OTR. Natalie's PND for BSP was 0% (Tau-U = 0.84), and OTR was 86% (Tau-U = 0.47). Generalization and maintenance measures were not collected for Natalie.

Juliet. During baseline, Juliet's mean rate was 0.21 (range = 0.00–0.47) for BSP and 3.83 (range = 2.93–6.76) for OTR. Juliet had high variability of OTR during baseline. During the training, Juliet set a goal of 4.0 for OTR. After the training, Juliet's rate of OTR was above her goal for three consecutive observations, dropping below her goal only once during intervention. Her rate of BSP also demonstrated a steady increase during intervention at 0.62 (range = 0.33–1.00) and 5.12 (range = 3.1–6.47) for OTR. Due to Juliet's high rate and variability of OTR during baseline, her PND for OTR was 0% (Tau-U = 0.49), and BSP was 60% (Tau-U = 0.86). During maintenance, Juliet's rate of BSP was 0.27, and her rate of OTR was 4.73.

Carolina. Carolina's rates during baseline showed high variability for OTR and low levels for BSP. Her baseline rate of BSP was 0.05 (range = 0.00–0.13), and OTR was 3.05 (range = 1.82–4.40). Carolina set a goal of 1.5 for her rate of BSP and only met that goal once during intervention. Her rate of OTR demonstrated an overall increasing trend during intervention. Carolina's rate of BSP during intervention was 1.04 (range = 0.53–1.60) and 3.38 (range = 2.20–4.76) for OTR. Due to Carolina's high variability during baseline, Caroline's PND for OTR was 0% (Tau-U = 0.31), and BSP was 100% (Tau-U = 1). Maintenance and generalization measures were not taken for Carolina.

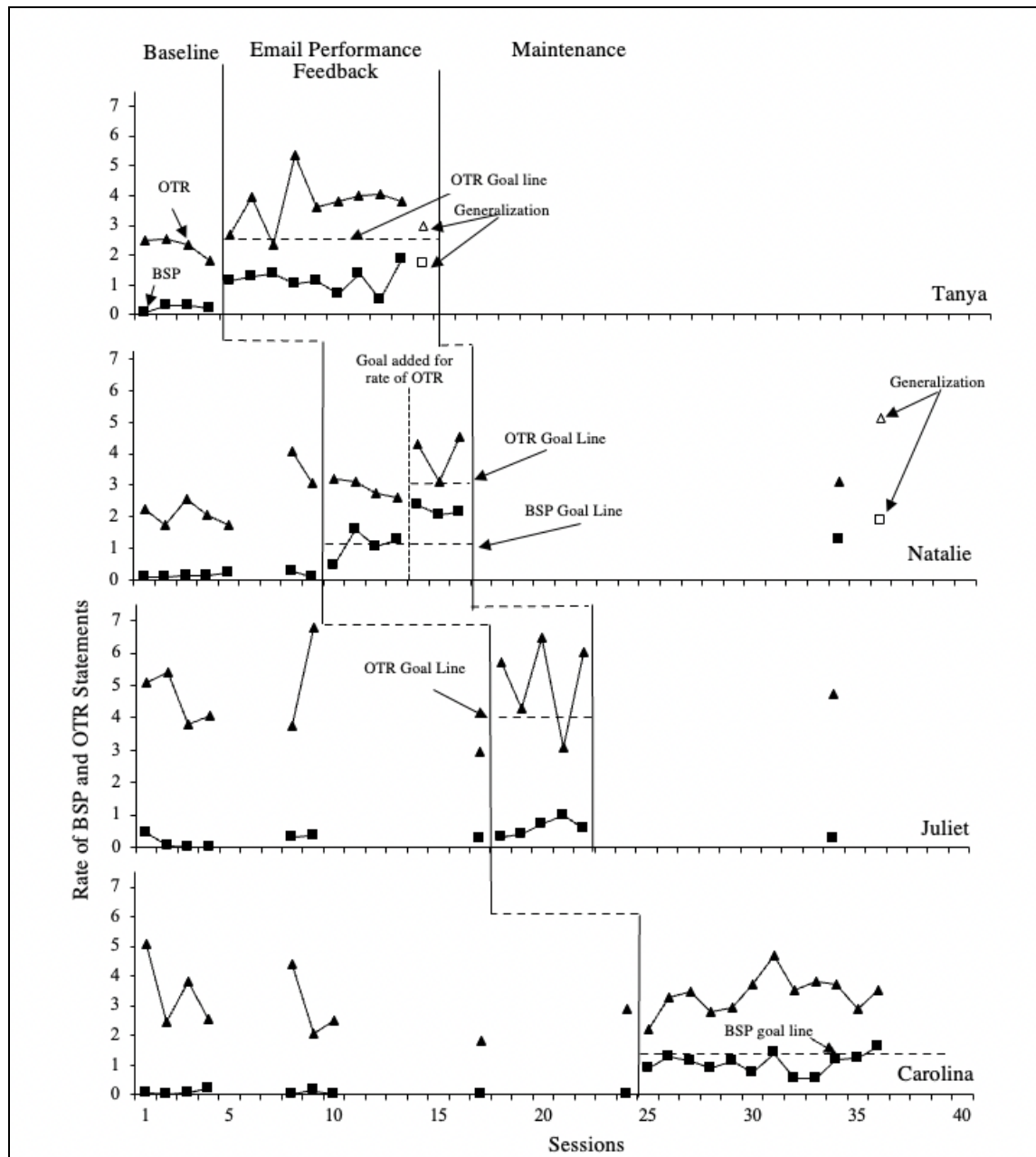


Figure 1: Effects of performance feedback with and without goal setting on pre-service teachers

Pre-service Teacher and Supervisor Perceptions

Pre-service Teachers. Overall, pre-service teachers' perceptions of the importance and effectiveness of the intervention were positive (results can be found in Table 2). Results from the social validity questionnaire are found in Table 1. Mean scores for each question, out of a possible 4 points, were 3.75 or higher for all questions about the intervention. The only questions scoring lower than a 3.75 were whether the pre-service teachers regularly used BSP and OTR in their classroom prior to observations. All pre-service teachers either agreed or strongly agreed ($M = 3.75$) that written performance feedback was effective in improving their skills. Additionally, all pre-service teachers strongly recommended that supervisors use written performance feedback with goal setting with pre-service teachers. When asked about goal-setting

procedures, the pre-service teachers agreed or strongly agreed that goal-setting improved their skills, they worked hard to meet their goals, and they would use goal-setting in their future professional growth ($M = 3.75$).

Table 2

Social validity results from pre-service teachers

	Teacher Responses	
	<i>M</i>	(range)
Part I. Acceptability of Intervention Goals		
It is important for preservice teachers to receive feedback to improve their teaching.	4.0	
Receiving feedback on my teaching in the classroom will improve my student's results.	3.75	(3–4)
Specific praise is an effective way to improve student performance.	3.75	(3–4)
Opportunities to respond (OTR) is an effective way to improve student performance.	4.0	
Part II. Acceptability of Procedures		
The training I received on how to deliver specific praise in the classroom was effective.	3.75	(3–4)
The training I received on how to deliver higher rates of OTR in the classroom was effective.	3.75	(3–4)
Receiving feedback on my teaching performance by email was effective in increasing my performance.	4.0	
The feedback I received on how to deliver specific praise was effective.	4.0	
The feedback I received on how to deliver OTR was effective.	4.0	
I would recommend the use of feedback for positive praise intervention for other teachers.	4.0	
I would recommend the use of feedback for OTR intervention for other teachers.	4.0	
Goal setting was effective in improving my skills.	3.75	(3–4)
I thought the graph included in the email feedback was helpful.	4.0	
I thought the narrative and written feedback in the email was helpful.	4.0	
I felt that if I had a goal, I worked hard to meet that goal.	3.75	(3–4)
Part III: Acceptability of Outcomes		
Before this study, I regularly used specific praise in the classroom.	2.25	(2–3)
Before this study, I regularly used OTR in the classroom.	2.25	(2–3)
Overall, increasing my rate of specific praise improved student performance in the classroom.	3.75	(3–4)
Overall, increasing my rate of OTR improved student performance in the classroom.	3.75	(3–4)
I will increase my rate of specific praise in the classroom as a result of this study	3.75	(3–4)
I will increase my rate of OTR in the classroom as a result of this study.	3.75	(3–4)
I will use goal setting in my future professional growth.	3.75	(3–4)
I recommend university supervisors use email to provide written feedback with goal setting with other preservice teachers.	4.0	

Note. Scores are scored on a scale of 1–4; 1= strongly disagree and 4= strongly agree.

University Supervisor. One university supervisor was assigned to all participants. The university supervisor found that overall, the pre-service teacher's rates of BSP and OTR increased due to the study. When asked if the procedures used in the study would be beneficial for all student teachers, the university supervisor strongly agreed. When explicitly asked about the rate of BSP, the university supervisor strongly agreed that three participants had high rates of BSP after the study but disagreed that Carolina had high rates of BSP. Finally, the university supervisor agreed that email performance feedback and goal setting are effective methods for providing feedback to pre-service teachers.

Discussion

While there is extensive evidence of the effects of performance feedback on in-service teacher performance (Ennis et al., 2020; Fallon et al., 2015; Zoder-Martell et al., 2019), there is limited research on the effects of performance feedback with pre-service teachers (Schles & Robertson, 2019; Scott et al., 2014). Moreover, the role of goal setting within performance feedback has limited research. The purpose of this study was to examine the effects of training and performance feedback with goal setting on rates of BSP and OTR for pre-service teachers in the traditional classroom setting. The results of this study indicate a functional relation between a goal-setting and performance feedback treatment package and pre-service teacher use of EBPs such as BSP and OTR.

All participants demonstrated an increase in overall mean rates of BSP from baseline to intervention. BSP findings related to goal setting and performance feedback include an overall Tau-U of 0.93, indicating a strong effect. Participants improved BSP rates more than OTR rates, with an overall Tau-U of 0.53 (low to moderate effect). However, all participants did demonstrate an increase in overall mean rates of OTR from baseline to intervention, so there was some improvement in rates of OTR. It should also be noted that Carolina, the participant with the lowest rate of BSP during baseline and lowest rate of improvement of OTR, was the only participant in a high school setting. These results further extend the research that as students' age increases, the rate of praise they receive decreases (Floress et al., 2018). Floress et al. (2022) found that middle and high school teachers praise more frequently during large-group instruction or with individual students than during small-group instruction. This may explain why less BSP was delivered in the only high school placement.

Adding the goal-setting component to the treatment package was designed to evaluate whether this would strengthen the change (i.e., phase within a phase). Natalie's results support this as she demonstrated a negative trend in her OTR during the first four intervention sessions, which immediately reversed when she set a goal for OTR. When comparing the goal-setting effects (combination of two BSP and two OTR), this component had an overall Tau-U of 0.84, indicating a good effect. It is important to note that there are not enough demonstrations of the effect of goal setting in this study. Also, the overall percentage change between baseline and intervention for behaviors with a goal was not consistently more than those without a goal (e.g., Tanya's goal-setting rates of OTR only increased by 39%, but her BSP increased by 81%). Regardless of whether there was a goal related to BSP, the percentage of a mean rate change for BSPs (range = 66 to 91%) was significantly higher than OTR (range = 10 to 29%). This could be because all the participants had relatively high rates of OTR even in baseline (mean range rate of 2.29 to 3.83 for OTR as opposed to 0.05 to 0.22 in baseline for BSP) and reflects specific program training surrounding the use of OTR. These results align with findings from Freeman and colleagues (2014) review of classroom management training with pre-service teachers. Researchers found that only 60% of special education teacher training programs explicitly instruct pre-service teachers how to respond to appropriate behavior using EBPs (i.e., BSP). This suggests that pre-service teachers may have limited training in evidence-based classroom management practices, resulting in the need for additional feedback during field experiences.

Overall, the targeted professional development sessions on BSP led to at least minimal initial effects for all participants. However, only two participants demonstrated an immediate positive change in OTR. Some of this could be due to high rates and high variability in OTR rates in baseline, which could be attributed to a strong focus on OTR in the pre-service teacher training program. Once the performance feedback was implemented following the initial intervention session, an improvement in OTR trend was seen, especially with the addition of goal setting for OTR for Natalie. This indicates that the treatment package, as a whole (i.e., the professional development plus the performance feedback and goal setting), was more effective than targeted training alone. These results align with Kennedy and colleagues' (2017) findings that the traditional professional development model was not as effective as other models of professional development (e.g., podcasts and video modeling) in changing teacher behavior.

Pre-service teacher feedback for the intervention was positive. All participants reported that the feedback they received was effective and would recommend using written performance feedback with a graph to improve their skills. However, there was less enthusiasm for the use of goal setting and the effectiveness of OTR and BSP to improve student performance. While all participants agreed (25%) or strongly agreed (75%) that goal setting was effective for improving their behavior in the classroom, the enthusiasm for goal setting was limited; only three of the four participants saying they strongly agree they would use goal setting in their future professional growth. A lack of knowledge about optimal rates of EBPs in the classroom may explain this. Further, some teachers might struggle with philosophical differences regarding the use of high rates of praise in the classroom, despite the robust evidence supporting its effectiveness (Gage & MacSuga-Gage, 2017; Pas et al., 2015; Reinke et al., 2008). For example, during the training with Tanya, she indicated that her mentor teacher might not support higher rates of BSP in the classroom. Carolina, the participant with the second lowest rate of BSP during baseline and intervention, also shared prior to an observation that she struggled to incorporate so much praise in her high school classroom. Finally, the university supervisor indicated that she only agreed, rather than strongly agreed, that email feedback with goal setting was an effective method to provide feedback to pre-service teachers. This indicates that despite its effectiveness, pre-service teachers and university supervisors may need more involvement in the goal-setting procedures to increase motivation.

Implications for Practice

Findings from this study have implications for educator training programs, school administrators, practitioners, and researchers. Practitioners, such as administrators should consider using goal setting in their performance feedback plans with teachers, specifically novice teachers. By using written performance feedback with goal setting and graphs, those responsible for providing feedback to teachers can give meaningful feedback on the use of EBPs with brief classroom observations. Additionally, practitioners should consider using a within-school consultation model (e.g., Briere et al., 2015) to increase the use of EBPs in the school setting through performance feedback and goal setting. Specifically, when collaborating with classroom teachers, specifically novice teachers, school psychologists can include a goal-setting component when looking to increase EBPs. Observers can identify two to three EBPs, such as OTR, BSP, or general praise statements, and provide performance feedback after brief observations.

Based on the positive findings from this study, including the social validity results from both the pre-service teachers and their university supervisor, teacher training programs should explore using email feedback with goal setting and graphs to increase pre-service teachers' use of EBPs in the classroom. Using goal setting, pre-service teachers can identify a skill they would like to improve and stay motivated to meet that goal. Moreover, teacher training programs and researchers should explore the use of mentor teachers delivering performance feedback and goal setting with pre-service teachers.

Limitations and Future Research

The current study has some limitations that future research should address. First, while this study was able to show a functional relation between performance feedback and teacher performance, the impact of goal setting was unclear. Performance feedback was effective in changing teacher performance, but the study design did not conclusively determine the effect of the goal-setting component. In future studies, researchers could consider including additional participants to effectively compare the effects of goal setting plus performance feedback versus performance feedback alone. Second, all participants had high variability in performance, specifically, the rates of OTR during baseline. The participants were still in training and receiving feedback from their university supervisor and classroom mentor teachers, which may be why they had higher rates of OTR during baseline. Additionally, the participants received feedback from multiple sources; therefore, it may be harder to focus on one specific aspect of their teaching, like BSP or OTR. Future research should consider prioritizing one dependent variable at a time and coordinating with the university supervisor and mentor teacher to streamline feedback to pre-service teachers.

Third, maintenance measures were not collected for all participants, nor were generalization measures collected during each phase for every participant. Due to schedule constraints with spring break and the pre-service teacher's time in the classroom, maintenance, and generalization measures were not able to be collected for most participants. Additionally, the participants' classrooms ranged in setting, number of students, and grade level. Researchers should consider including participants with similar classroom sizes and settings and include maintenance and generalization for all participants.

Finally, the dependent variables were selected prior to observations, despite the direct needs of the pre-service teachers. For example, to be included in this study, the pre-service teachers had to have low rates of BSP or OTR during baseline; however, despite their low rates of BSP during baseline, Juliet and Carolina had relatively high rates of OTR. These participants may have benefitted from a different EBP on student engagement, such as time on teaching or behavior corrective feedback. Researchers should consider offering a menu of evidence-based classroom management practices for participants to self-select.

Conclusion

The goal of this study was to evaluate the effectiveness of email performance feedback with goal setting on pre-service teachers' use of EBPs. This study addresses a gap in the literature regarding the use of goal setting within a performance feedback treatment package on a novel group of participants, pre-service teachers. Continued research is needed on the effectiveness of

goal setting as a component of performance feedback to better understand how practitioners, administrators, and teacher preparation programs can address the need for increasing caseloads and lack of EBPs in the classroom. Furthermore, additional research is needed to better understand the use of performance feedback on other EBPs and the long-term impact of performance feedback on pre-service teachers' practices.

References

- Briere, D. E., Simonsen, B., Sugai, G., Myers, D., (2015). Increasing new teachers' specific praise using a within-school consultation intervention. *Journal of Positive Behavior Interventions*, 17(1), 50-60. <https://doi.org/10.1177/1098300713497098>
- Common, E. A., Lane, K. L., Cantwell, E. D., Brunsting, N. C., Oakes, W. P., Germer, K. A., & Bross, L. A. (2020). Teacher-delivered strategies to increase students' opportunities to respond: A systematic methodological review. *Behavioral Disorders*, 45(2), 67-84. <https://doi.org/10.1177/0198742919828310>
- Cook, B. G., Cook, S. C., & Collins, L. W. (2016). Terminology and evidence-based practice for students with emotional and behavioral disorders: Exploring some devilish details. *Beyond Behavior*, 25(2), 4-13. <https://doi.org/10.1177/107429561602500202>
- Cooper, J. O., Heron, T. E., & Heward, W. L. (2020). *Applied behavior analysis* (3rd ed.). Pearson.
- Council for Exceptional Children. (1989). Academy for effective instruction: Working with mildly handicapped students. *TEACHING Exceptional Children*, 22(1), 66. <https://doi.org/10.1177/004005998902200117>
- Criss, C. J., Konrad, M., Alber-Morgan, S.R. *et al.* A Systematic Review of Goal Setting and Performance Feedback to Improve Teacher Practice. *J Behav Educ* (2022). <https://doi.org/10.1007/s10864-022-09494-1>
- Criss, C. J., Konrad, M., Alber-Morgan, S.R., Brock, M. E., & Harris, A. B. (2023). Using performance feedback with and without goal setting on teachers' classroom management skills. *Behavioral Disorders*. Advance online publication. <https://doi.org/10.1177/01987429231201096>
- Ennis, R. P., Royer, D. J., Lane, K. L., & Dunlap, K. D. (2019). Behavior-specific praise in PK-12 Setting: Mapping the 50-year knowledge base. *Behavioral Disorders*, 45(3), 1-17. <https://doi.org/10.1177/0198742919843075>
- Ennis, R. P., Royer, D. J., Lane, K. L., & Dunlap, K. D. (2020). The impact of coaching on teacher-delivered behavior-specific praise in pre-K-12 setting: A systematic review. *Behavioral Disorder*, 45(3), 1-19. <https://doi.org/10.1177/0198742919839221>
- Fallon, L. M., Collier-Meek, M. A., Maggin, D. M., Sanetti, L. M., & Johnson, A. H. (2015). Is performance feedback for educators an evidence-based practice? A systematic review and evaluation based on single-case research. *Exceptional Children*, 81(2), 227-246. <https://doi.org/10.1177/0014402914551738>
- Floress, M. T., Jenkins, L. N., Reinke, W. M., & McKown, L. (2018). General education teachers' natural rates of praise: A preliminary investigation. *Behavioral Disorders*, 43(4), 411-422. <https://doi.org/10.1177/0198742917709472>
- Floress, M. T., Riedesel, E. K., Brito, C. F., & White, J. D. (2022). Middle and high school teachers' praise and reprimand delivery. *School Psychology*, 37(1), 15-25. <https://doi.org/10.1037/spq0000482>
- Freeman, J., Simonsen, B., & Briere, D. E., (2014). Pre-service teacher training in classroom

- management: A review of state accreditation policy and teacher preparation programs. *Teacher Education and Special Education*, 37(2), 106-120.
<https://doi.org/10.1177/0888406413507002>
- Gage, N. A., & MacSuga-Gage, A. S. (2017). Salient classroom management skills: Finding the most effective skills to increase student engagement and decrease disruptions. *Report on Emotional & Behavioral Disorders in Youth*, 17, 19-24.
- Kennedy, M. J., Hirsch, S. E., Rodgers, W. J., Bruce, A., & Lloyd, J. W. (2017). Supporting high school teachers' implementation of evidence-based classroom management practices. *Teaching and Teacher Education*, 63, 47-57.
<https://doi.org/10.1016/j.tate.2016.12.009>
- Kirkpatrick, M., Akers, J., & Rivera, G. (2019). Use of behavioral skills training with teachers: A systematic review. *Journal of Behavioral Education*, 28(3), 344-361.
- MacSuga-Gage, A. S., & Simonsen, B. (2015). Examining the effects of teacher-directed opportunities to respond on student outcomes: A systematic review of the literature. *Education and Treatment of Children*, 38(2), 211-240.
<https://www.jstor.org/stable/44683954>
- Martens, B. K., Witt, J. C., Elliott, S. N., & Darveaux, D. X. (1985). Teacher judgments concerning the acceptability of school-based interventions. *Professional Psychology: Research and Practice*, 16(2), 191-198.
<https://doi.org/10.1037/0735-7028.16.2.191>
- McLeod, R. H., Kim, S., & Resua, K. A. (2019). The effects of coaching with video and email feedback on pre-service teachers' use of recommended practices. *Topics in Early Childhood Special Education*, 38(4), 192-203.
<https://doi.org/10.1177/0271121418763531>
- Parker, R. I., Vannest, K. J., Davis, J. L., & Sauber, S. B. (2011). Combining nonoverlap and trend for single-case research: Tau-U. *Behavior Therapy*, 42(2), 284-299.
- Pas, E. T., Cash, A. H., O'Brennan, L., Debnam, K. J., & Bradshaw, C. P. (2015). Profiles of classroom behavior in high schools: Associations with teacher behavior management strategies and classroom composition. *Journal of School Psychology*, 53(2), 137-148.
<https://doi.org/10.1016/j.jsp.2014.12.005>
- Reinke, W. M., Lewis-Palmer, T., & Merrell, K. (2008). The classroom check-up: A classwide teacher consultation model for increasing praise and decreasing disruptive behavior. *School Psychology Review*, 37(3), 315-332.
<https://doi.org/10.1080/02796015.2008.12087879>
- Riley-Tillman, T.C. & Burns, M.K. (2009). Introduction to design and analysis for educational interventions. In *Evaluating educational interventions: Single-case design for measuring response to intervention* (pp. 1-12). New York: Guilford Press.
- Rosenshine, S., Schles, R. A., & Robertson, R. E. (2017). The role of performance feedback and implementation of evidence-based practices for preservice special education teachers and student outcomes: A review of the literature. *Teacher Education and Special Education*, 42(1), 36-48.
<https://doi.org/10.1177/0888406417736571>
- Scott, L. A., Gentry, R., & Phillips, M. (2014). Making preservice teachers better: Examining the impact of a practicum in a teacher preparation program. *Educational Research and Reviews*, 9(10), 294-301.
<https://doi.org/10.5897/ERR2014.1748>
- Simonsen, B., Fairbanks, S., Briesch, A., Myers, D., & Sugai, G. (2008). Evidence-based practices in classroom management: Considerations for research to practice. *Education and Treatment of Children*, 31(3), 351-380.
<https://www.jstor.org/stable/42899983>

- Simonsen, B., Freeman, J., Dooley, K., Maddock, E., Kern, L., & Myers, D. (2017). Effects of targeted professional development on teachers' specific praise rates. *Journal of Positive Behavior Interventions*, 19(1), 37–47. <https://doi.org/10.1177/1098300716637192>
- Sleiman, A. A., Aud Elnes, S. S., Gage, N. A., & Gravina, N. E. (2020) A quantitative review of performance feedback in organizational settings (1998-2018), *Journal of Organizational Behavior Management*, 40(3-4), 303–332. <https://doi.org/10.1080/01608061.2020.1823300>
- Sutherland, K. S., Adler, N., & Gunter, P. L. (2003). The effects of varying rates of opportunities to respond to academic requests on the classroom behavior of students with EBD. *Journal of Emotional and Behavioral Disorders*, 11(4), 239–248. <https://doi.org/10.1177/10634266030110040501>
- Vannest, K. J., & Ninci, J. (2015). Evaluating intervention effects in single-case research designs. *Journal of Counseling & Development*, 93(4), 403–412. doi:10.1002/jcad.12038
- Vannest, K. J., Parker, R. I., Gonen, O., & Adiguzel, T. (2016). Single case research: Web-based calculators for SCR analysis (Version 2.0) [Web-based application]. College Station, TX: Texas A & M University. Available from singlecaseresearch.org.
- Zoder-Martell, K. A., Floress, M. T., Bernas, R. S., Dufrene, B. A., & Foulks, S. L. (2019). Training teachers to increase behavior-specific praise: A meta-analysis. *Journal of Applied School Psychology*, 35(4), 309–338. <https://doi.org/10.1080/15377903.2019.1587802>

About the Authors

Dr. Caitlin Criss is an Assistant Professor in the Elementary and Special Education department at Georgia Southern University. Her research interests include increasing teachers' use of positive-based classroom management practices, performance feedback with technology, and effective reading interventions for students with disabilities. This research agenda is developed through a strong relationship with K-12 partnerships, administrators, and teachers.

Dr. Stephanie M. Devine is an Associate Professor of Special Education in the Department of Elementary and Special Education at Georgia Southern University. Dr. Devine is also the Executive Director of EAGLE Academy at Georgia Southern, which is an inclusive postsecondary education program for young adults with intellectual and developmental disability. Her research focuses on preservice and in-service teacher preparation; the use of Universal Design for Learning, technology, and peer mentors to support successful postsecondary transition; and competitive integrated employment for individuals with intellectual and developmental disability.

Dr. Cynthia Massey is an Assistant Professor of Special Education at Georgia Southern University. She has 27 years of experience in the field of special education, with 22 of those dedicated to K-12 teaching. Her current research focuses on best practices within educator preparation programs, including evidence-based methods and the efficacy of instructional technology. This blend of hands-on experience and scholarly research contributes to a distinctive approach in special education.

Wellness and Resiliency Plans for Special Educators Throughout the COVID-19 Global Pandemic and Beyond

Dr. Elizabeth O'Neill Hunter, Ph.D.
Walden University

Dr. Elizabeth M. Anderson Hunter, Ed.D.

Abstract

Special educators are among the countless professionals adversely impacted by the coronavirus (COVID-19) global pandemic. Before the pandemic, the special education profession was associated with increased occupational stress, anxiety, and job dissatisfaction. As we progress through the first post-pandemic school year, special educators continue to be adversely impacted by occupational demands associated with COVID-19. Here we discussed the basics of stress, the personal and professional implications of stress, and an examination of how to address this critical issue among these valuable professionals. We discussed the importance and development of wellness and resilience plans applied throughout the COVID-19 pandemic and beyond. The stress experienced by special educators is a significant occupational and ethical issue needing attention.

***Wellness and Resiliency Plans for Special Educators
Throughout the COVID-19 Global Pandemic and Beyond***

In 2022, the coronavirus (COVID-19) cases in the United States reached 102,736,819 as citizens continue to adjust to the new normal of global pandemic living [Centers for Disease Control (CDC), 2022]. This infectious disease can result in symptoms ranging from mild to moderate respiratory illness, to death [World Health Organization (WHO), 2020]. The COVID-19 global pandemic has adversely impacted varying populations, professions, and areas of functioning. In addition to the many potential daily stressors associated with enduring a global pandemic (health concerns, occupational disruption, social or financial hardship), many have reported experiencing marked emotional and psychological distress (Strear et al., 2021). Although reported COVID-19-related deaths seem to be decreasing, and mask mandates and social regulations have been adjusted (CDC, 2022), the impact of sustained periods of stress on the human body calls for attention and consideration (American Psychological Association (APA), 2022a).

Much of the unprecedented pandemic-induced disruption has impacted our nation's schools, implicating students, administrative and supportive staff, and educators (Herman et al., 2020; Strear et al., 2021). Specifically, in the 2020-2021 school year, the pandemic forced schools across the United States to close in a historic effort to contain the spread of the disease (Correa & First, 2021; National Center for Education Statistics, 2020). Then the 2021-2022 school year brought many changes; public schools reopened their doors to welcome students with varying guidance regarding social distancing, vaccination, and masking protocols dictated by state and district (Strear et al., 2021). Safety protocols aside, the impact on student learning, assessment,

and overall functioning was noted across grade level and institution (Burgess & Silversten, 2020).

Educators were left to navigate the daily implications of virtual, hybrid, or in-person learning, partnered with any personal COVID-19 challenges they may be experiencing. Specifically, educators bore the weight of the seemingly constant uncertainty, sudden adjustments to learning format, limitations of technology, creation of alternative lesson plans/tools, student engagement struggles, safety protocols, as well as the mounting concerns for students experiencing marginalization (Strear et al., 2021; MacIntyre et al., 2020). For special educators specifically, these concerns are compounded by the unique learning needs of children with exceptional learning needs.

Perhaps the most profoundly impacted by the COVID-19 pandemic are the young learners, those with typical and exceptional learning needs (Correa & First, 2021; Strear et al., 2021). The stressors of the pandemic placed on the educators and staff could potentially impact the children with exceptional learning needs in our schools (Correa & First, 2021; Strear et al., 2021; MacIntyre et al., 2022). Sustained periods of stress can have serious adverse consequences across varying areas of functioning (APA, 2022b, Herman et al., 2020). Unfortunately for many, stress management and wellness strategies have evolved into items on the never-ending to-do list, detracting from its healing potential. We hope to shift this perspective by assisting special educators in integrating wellness and resiliency into daily living. Specifically, to promote the wellbeing of young learners and the professionals who serve them, we will discuss the importance of developing resiliency and wellness plans among special educators throughout the COVID-19 global pandemic and beyond.

Stress, personal implications of stress, and COVID-19

Stress is a natural part of the human experience. Stress can provide us with much needed alertness to maintain safety and wellbeing (APA, 2022b). However, at times when stress is chronic, or significant, this stress response can become potentially problematic, and even lead to feelings of anxiety. Chronic stress can elicit adverse personal and professional implications among those affected. Here we explore what stress is, the personal implications of chronic stress on an individual, and role of the global pandemic on stress.

What is stress?

Stress is a natural physical or psychological response to a stimulant (Herman et al., 2020). Depending on the level, intensity, or duration of the stimulant, the stress reaction can increase attention and motivation, or can include serious deleterious alterations in emotional, psychological, cognitive, and physical functioning (Herman et al., 2020, Reffner, 2022, Schetter & Dolbier, 2011). Specifically, stress can result in symptoms such as emotional changes (irritability, anxiety, agitation, anger, alertness), and physical changes (muscle tension, digestive disruption, headaches etc.). In addition to psychological and emotional functioning, symptoms of stress can impact nearly every bodily system (APA, 2022b; Herman et al., 2020). Stress is considered a worldwide epidemic resulting in serious adverse implications at individual and societal levels (Davis et al., 2017). For example, chronic stress has been associated with the development of a variety of psychological ailments including anxiety disorders, major depressive disorder, post-traumatic stress disorder, and bipolar disorder all of which entail significant

personal and professional burden (Davis et al., 2017). Chronic stress, (that which is enduring without a clear ending), and what is done to address it, can result in serious, and often long-term effects throughout the entire bodily system (APA, 2022b; Schetter & Dolbier, 2011). Lack of proper stress management can have serious implications not only at the time of the experience, but into the future as well.

The personal implications of sustained periods of stress

Exposure to long-term or chronic stress can impact nearly every area of one's personal life, including interpersonal, familial, financial, spiritual, and overall functioning of those affected (APA, 2022b; Herman & Reinke, 2014). Although the human body can function and even thrive with stress, chronic stress can elicit serious adverse consequences across the bodily system over sustained periods (APA, 2022b; Herman & Reinke, 2014). An estimated 75-90% of primary care physician appointments are associated with stress-related health concerns (The American Institute of Stress, 2022).

Chronic or prolonged periods of stress (such as a global pandemic) can impact nearly every bodily system. Specifically, under sustained periods of stress, the musculoskeletal system can become unnecessarily tense (APA, 2022b). This tension comes with migraines, headaches, and even musculoskeletal disorders (chronic pain conditions, jaw or dental issues) (APA, 2022b). Chronic stress levels can also adversely impact the cardiovascular system and increase the risk of heart attack, stroke, hypertension, and elevated cholesterol levels (APA, 2022b). The endocrine system assists the human body in hormone regulation and is responsible for producing and releasing cortisol (released in response to perceived stressors) (APA, 2022b). When released appropriately in response to occasional stress, cortisol can assist the human body in regulating concentration and energy levels to sustain the circumstances (APA, 2022b). However, chronic stress can result in dysregulation of this system, resulting in an array of potentially severe adverse physical or mental health conditions (APA, 2022b). Specifically, chronic stress and subsequent increased cortisol levels can result in clinical mood disorders, chronic fatigue, compromised immunity, and increased vulnerability to illness (APA, 2022b; Herman & Reinke, 2014).

In addition to the physical and physiological impact stress can elicit, other areas of personal functioning can also be adversely implicated. Specifically, as mentioned, chronic stress can also contribute to the onset of severe psychiatric impairment (Davis et al., 2017). Both chronic and acute stress have been causally linked to psychiatric conditions resulting in disability status throughout the world (Davis et al., 2017; Lancet, 1997; Schmidt et al., 2008; US Department of Health and Human Services, 2016). Stress has also been associated with bipolar disorder-specific links have been noted in episode recurrence, as well as manic or hypomanic episodes (Davis et al, 2017). Post-Traumatic Stress Disorder (PTSD) has also been linked with sustained periods of stress. Most notably chronic stress has been cited as a predictor in the development of PTSD (Davis et al., 2017). In short, chronic stress places individuals at increased risk for severe psychiatric impairment (Davis et al., 2017).

COVID-19 and Stress

In 2022, as the world progressed through another schoolyear within the COVID-19 global pandemic, individuals faced unprecedented, continued personal and professional stressors. Many

Americans generally report high-stress levels, with steady increases as the pandemic continued (APA, 2022a). The sources of COVID-19-induced stress ranged from daily safety and health concerns, occupational and financial stability, and daily parenting decisions, to the general uncertainty of what was to come (APA, 2022a). These stress levels were even higher among Hispanic adults and adult people of color (APA, 2022a). Many adult Americans across varying ethnic groups reported higher COVID-19-induced stress and uncertainty about managing the unprecedented stress (APA, 2022a). As the reports of stress continued, the impact ranged from physical ailments (headaches, fatigue, muscular tension) to emotional and psychological functioning (feelings of overwhelm, social avoidance, procrastination, alterations in physical activity, and eating and sleeping patterns) (APA, 2022a).

Stress among special educators, professional implications of sustained periods of stress & COVID-19 stress

Here, we discuss some of the professional implications of sustained stress among special educators. Specifically, considerations for students, and student outcomes, any ethical and practical considerations, as well as the relevant licensure requirements for educators. We also discuss COVID-19 induced stress on special educators.

Stress among special educators

Prior to the COVID-19 global pandemic, high levels of occupational stress were noted among teachers, and even higher rates among special education teachers specifically (Nagel & Brown, 2003; Williams & Poel, 2006). As in any profession, the sources of stress can be both external (student or organizationally oriented) or internal (perceptions, stress management knowledge, and skills) (Williams & Poel, 2006). However, when compared to other educators and administrators, special educators may have additional sources of external stress. Specifically, special educators hold the added responsibility of conducting additional assessments, completing documentation, attending collaborative meetings, and satisfying legal demands (Downing, 2017; Jones et al., 2013). The nature of special education, although rewarding, can be increasingly complex, intense, and unpredictable (Downing, 2017; Fish & Stephens, 2010).

The Individual with Disabilities Education Improvement Act (IDEIA) of 2004 ensures free and appropriate education for children with exceptional learning needs throughout the United States (United States Department of Education, 2023). As they work to abide by IDEIA, it is important that all special educators are best positioned to serve the exceptional learning population. However, mounting stress levels and professional demands can threaten this (Downing, 2017). Generally, special educators also report increased anxiety levels, decreased job satisfaction, and a perceived lack of occupational support (Williams & Poel, 2006). Other noted sources of special educator stress stem from the varied roles and responsibilities associated with the position, partnered with the ongoing maintenance of professional development requirements and standards (Williams & Poel, 2006).

Before the COVID-19 pandemic, there were efforts made to address chronic stress levels among special educators. Specifically, there was increased intentionality around teacher induction, professional development opportunities, self-directed stress management plans, mentorship programs, and workload adjustment initiatives were implemented (Ansley et al., 2016; Emery & Vandenberg, 2010; Kolbe & Tirozzi, 2011). Prior to the unprecedented stress placed upon

special educators throughout the pandemic, school districts were also highly encouraged to develop and implement wellness programs for all educators (Kolbe & Tirozzi, 2011). These programs encouraged special educators to develop and implement self-care strategies such as increased socialization, exercise, and use of healthy coping skills (Kolbe & Tirozzi, 2011). Now that the pandemic is over, continuation, and perhaps improvement of such initiatives is even more vital to the successful learning, and health of students with exceptional needs and learners alike.

In addition to any personal struggles or challenges they may be facing; teachers face mounting professionally oriented stress relevant to the pandemic. Unpredictable daily schedules, technology demands, or sudden alterations to learning formats can contribute to increased professionally oriented stressors for our nation's educators (Correa & First, 2021). Additionally, legally in accordance with IDEA, special educators must ensure that their ability/capacity to provide services to exceptional learners is uninterrupted (United States Department of Education, 2023). Special educator attrition rates are rising, which can potentially threaten the ease of access or quality of the services rendered for the exceptional learners who have the right to receive them (Downing, 2017; Fish & Stephens, 2010).

Unfortunately, many personal symptoms of stress can also adversely impact one's professional functioning. Specifically, many educators have reported substantial stress levels and increased feelings of anxiety and depression (Strear et al., 2021). Stress can adversely impact professionals across all areas of functioning (physically, emotionally, psychologically, and physiologically) (Herman & Reinke, 2014; Koehler, 2001; Williams & Poel, 2006). Seemingly constant levels of stress on the human body can result in many adverse consequences, including fatigue, weakened immunity, and increased stimulation of the sympathetic nervous system, resulting in heightened tension and nervousness (Koehler, 2001; Williams & Poel, 2006). The unprecedented levels of stress and moderate to severe depression and anxiety among our educators highlight the importance of mental wellness across the profession (Correa & First, 2021; Deckro et al., 2002). These physical and psychological implications can compromise the job performance of the educator. Persistent high-stress levels can also adversely influence the special educator's sense of self, resulting in a negative view of themselves and their work (Ansley et al., 2016). Increased stress is associated with increased absenteeism, lower levels of job satisfaction, and even attrition among special educators (Ansley et al., 2016; Billingsley, 2004; Tsouloupas et al., 2010).

Ethical and professional practice considerations for stressed special educators

The professional implications of stress on special educators are an important consideration for the educators, and the students. The impact of stress on exceptional learners and potential learning outcomes is of great concern for educators, administrators, learners, and families. Further, if left unaddressed, special educator stress could impact the capacity that special educators may hold to abide by the ethical principles stipulated for the profession.

In addition to state and local legislation, professional special educators are guided by the Council for Exceptional Children (CEC) that provides standards of practice, professional policy, and professional ethical principles for special educators (CEC, 2022). Effective stress management is a foundational expectation articulated repeatedly throughout both the standards of practice, and the ethical principles of the profession (CEC, 2022). Both *The Special Education Professional*

Ethical Principles and the *Special Education Standards for Professional Practice*, delineate a variety of expectations which could be impacted by chronic, high levels of stress. Specifically, the standards and principles reiterate the importance of self-evaluation, modeling, mentorship, boundaries between personal and professional functioning, and effective learning environments (CEC, 2022). The high standards and demands of daily professional functioning required of special educators warrant a high level of personal wellness (Ansley et al., 2016). For example, special educators are expected to establish and maintain appropriate boundaries between personal and professional functioning -a central tenant of stress management (APA, 2022b; CEC, 2022).

Licensure standards for stressed special educators

In addition to the CEC *Standards for Practice* and *Ethical Principles*, there are also stress management considerations to be made within the context of educator state licensure standards. The licensure standards for special educators vary by state. The Virginia Department of Education (VDOE) is responsible for the education and licensure standards in the Commonwealth of Virginia. The VDOE provides special educator performance standards and evaluation criteria. Effectiveness among educators has a direct impact on student performance (VDOE, 2021). The VDOE outlines eight performance standards ranging from educator knowledge and competency, to delivery and cultural responsiveness (VDOE, 2021).

Performance standard 7: Professionalism asserts that the educator demonstrate ethical behavior, appropriate communication, as well as a responsibility for personal professional growth which promotes student learning (VDOE, 2021). Specifically, the *Guidelines for Uniform Performance Standards and Evaluation Criteria for Teachers*, indicates that each teacher in Virginia should be evaluated on the performance area of professionalism (VDOE, 2021). These professionalism guidelines suggest that teachers take responsibility for personal growth and identifying areas for improvement (VDOE, 2021). Personal growth is a form of self-improvement within which individuals seek out their highest potential across a number of functional capacities (Ben-Zur & Michael, 2020). The pursuit of personal growth, or wellness can include an examination of the efficacy of current functioning and choices, including stress management practices (Ben-Zur & Michael, 2020, Myers & Sweeney, 2008).

Unfortunately, should chronic or high levels of stress adversely impact the special educator's ability to meet the licensure, ethical, and professional practice standards set forth by the governing bodies of the education profession, the consequences could be quite serious. Prior to the COVID-19 global pandemic, stress among special educators was an occupational norm (Ansley et al., 2016; Corraera & First, 2020). Now, more than ever, it is vital that special educators effectively address the stress they are experiencing. If left unaddressed, chronic stress can result in significant and lasting personal and professional consequences (Ansley et al., 2016). Specifically, failure to satisfy the professional standards of the educational profession could result in the development of a performance improvement plan, continued performance observations, a rating of ineffective, or recommendation for dismissal (VDOE, 2021a).

The Impact of Stress on Students and Student Outcomes

Educators face a variety of daily professional stressors, including challenges associated with multiple roles, classroom management, student behaviors, attendance, and engagement level (Ansley et al., 2016; Herman et al., 2021). In addition to the potential impact chronic stress can

have on the professional- the response of our nation's educators to mounting COVID-19-induced stress levels could adversely impact our young learners as well (Strear et al., 2021). Stress can adversely impact educators, the educational system, and perhaps most importantly, the students (Herman et al., 2021). Increased, chronic stress among educators can result in decreased efficacy and job performance-which can ultimately impact exceptional learners (Ansley et al., 2016). Stress-induced negative self-image among special educators can also adversely impact the performance of the exceptional learner (Ansley et al., 2016). Stress-induced special educator absence or attrition can also heavily impact learning among children with exceptional learning needs (Ansley et al., 2016; National Council on Teacher Quality, 2014). Specifically, the alterations to the daily routine for exceptional learners inherent with special educator absenteeism and attrition can result in behavior problems among learners (National Council on Teacher Quality, 2014).

There has been a concern for children with exceptional learning needs throughout the COVID-19 pandemic, as the transition from in-person to virtual learning became a norm (Doutre & Willis, 2021). Many exceptional education requirements were designed for in-person learning, never intended for virtual or hybrid learning formats (Doutre & Willis, 2021). Many children with exceptional learning needs have struggled with successful access to the virtual classroom and lack the necessary adult support at home. These dynamics compound the struggle to establish and maintain effective engagement and attention throughout the learning process (Herman et al., 2021; MacIntyre et al., 2020). Despite the COVID-19 global pandemic and the impact this unprecedented time has had on the educational system, the standards of the IDEA Act must be upheld. The transition from in-person to hybrid and online learning formats pose challenges for those exceptional learners already struggling to successfully retain knowledge and information. However, our special education teachers were not trained to deliver exceptional education plans in solely distance-based formats (Herman et al., 2020). Unfortunately, these dramatic alterations in the fundamental dynamics of exceptional education have resulted in gaps in delivering these vital services (Herman et al., 2021).

COVID-19 Stress among special educators

Special educators have faced unprecedented occupational challenges as the global pandemic has progressed. Early on, as the news of the COVID-19 pandemic and subsequent school closures spread across the country, educators and special educators had to face sudden changes to the curriculum, learning format, and daily challenges inherent in the learning environment (Correa & First, 2021). Specifically, special educators were tasked with completing the many existing tasks with sudden changes to format and process. The daily baseline stressors these professionals faced historically, were compounded by the COVID-19 pandemic. Many educators shared feelings of shock, anxiety, uncertainty, and frustration as they had to abruptly alter the fundamentals of their daily occupational functioning in a way that many had no experience or training (Sayman & Cornell, 2021). The nature of the educator's responses to these unprecedented stress levels could heavily impact our young learners (Strear et al., 2021). It is important to acknowledge how this stress has been and will be managed.

Development of sustained resilience and wellness

Instances of sustained stress, and what is done to address it are vital considerations for our educators, special educators, administrators, and perhaps most importantly our exceptional

learners. Here we examine what can be done to assist our nation's educators in combatting the seemingly chronic high stress levels they face each day. Specifically, sustained wellness practices and healthy resilience can arm our nation's exceptional educators to navigate the stressors associated with the current COVID-19 circumstances, and beyond. Here we explore wellness and resilience development.

Development of sustained resilience

Resilience is a complex interaction between social, cultural, developmental, and personal factors that promotes a successful outcome to adverse circumstances or situations (Hunter, 2021; Schetter & Dolbier, 2011). There are varying definitions and conceptualizations of resilience in the literature, it has been referred to as a character trait or disposition, a process, an outcome, a construct, a concept, and even a capacity (Schetter & Dolbier, 2011). For this discussion, resilience is defined as the ability to return to a sense of balance or homeostasis following instances of stress or adversity-a trait that develops over time (Gu & Day, 2007).

Resiliency levels can fluctuate, and can be impacted by a variety of internal and external factors. Internally, resilience can be impacted by many factors-personal characteristics, wellness practices, dynamics within family of origin, intimate partner dynamics, as well as emotional regulation knowledge and skills and more (Hunter 2021). Externally, many factors can impact one's level of resilience including occupational, social, cultural, economic, community-based interactions and circumstances, as well as the timing, instance, and nature of repeated stressors (Edmeade, & Buzinde, 2021, Padesky & Mooney, 2012). Those with increased resilience can effectively regulate emotions such as stress, overwhelm, and anxiety (Tait, 2008). Those with increased levels of resilience also tend to have increased optimism and lower stress levels (Schetter & Dolbier, 2011).

Resiliency can be cultivated- when looking to mitigate the impact of chronic stressors, such as a global pandemic, developing one's personal resiliency can be a desirable choice (Padesky & Mooney, 2012). Resiliency development although personal, involves accessing and utilizing relevant supportive resources at individual, social, and community levels (Schetter & Dolbier, 2011). Intentionally fostering sustained resilience involves a series of daily choices to face and manage life's daily challenges and victories. Specifically, resiliency involves implementing an attitude of adaptability, realistic positivity, and discernment when facing a problem or stressor (Edmeade, & Buzinde, 2021, Padesky & Mooney, 2012). Developing resiliency often involves a period of self-reflection following a challenge or stressor, posing such internal questions *as How has this experience helped me grow, or change?* (Schetter & Dolbier, 2011). Resiliency can also be further developed and cultivated with the assistance of licensed counselors.

Development of sustained wellness

Wellness is a counseling and clinical supervision theory, and a philosophy of life. Wellness is an individual pursuit of optimum functioning and wellbeing through the integration of mind, body, and spirit (Hunter, 2021; McCann & Pearlman, 1990; Myers & Sweeney, 2004). As human beings pursue holistic wellness, practices are systemically and simultaneously adjusted as needed over time (Hunter, 2021). Wellness practices can include an array of activities stretching across different areas of functioning, including physical, mental, emotional, social, spiritual environmental, and financial, to identify a few (APA, 2022b; Myers & Sweeney, 2004; The

Global Wellness Institute (GWI), 2022). GWI postulates that wellness can exist on a continuum given current life circumstances ranging from poor health to optimal states of wellbeing. Those seeking to engage in wellness can do so on reactive or proactive levels (GWI, 2022). Often wellness is suggested as a vehicle to achieve balance in personal and professional functioning. Wellness initiatives should be holistic, considering the individual's personal, cultural, and historical circumstances (Barringer & Orbuch, 2013; GWI, 2022). Wellness is a consistent and active pursuit of daily choices, lifestyles, and activities that promote a state of total health (GWI, 2022).

Wellness, resiliency, and the internal family systems model

The Internal Family Systems (IFS) Model is a therapeutic approach used in the counseling profession, within which individuals work to acknowledge all parts of themselves, in the pursuit of balance [Internal Family Systems Institute (IFSI), 2022]. Specifically relevant to wellness and resiliency, the IFS approach encourages an examination of both the internal and external selves that exist (and at times are conflicted) within us all (IFSI, 2022). Wellness and resiliency development require attendance to the sources of internal and external stressors, partnered with effective strategies to address each of these stressors. Wellness and resiliency development should be personalized, manageable, and realistic. Integration of a wellness and resiliency development plan based on IFS can result in long-term (post-COVID-19) sustainable health for all who subscribe to this perspective. Fostering wellness and resiliency is an intentional series of choices, a way of life, not a temporary to-do list. Here we explore how the IFS model can assist with wellness and resiliency development plans.

Personalized, prescriptive plan

Wellness and resiliency development exist on a continuum of personalized, daily choices- which are then monitored and adjusted as needed. The Personalized Wellness and Resiliency Development Plan (Appendix A) lists the prompts to guide users through the self-directed process. Users are encouraged to formulate the plan as a malleable document that will constantly change and be adjusted as needed. From a deeply personal, inner, and malleable perspective, wellness and resiliency development can assist in the management of COVID-19 induced stress, and future stressors as well. This plan will assist special educators to identify, adjust, and develop a baseline of overall health from which they can continue to grow and function throughout the lifespan.

An initial consideration when completing the development plan is engaging in mindful self-awareness and introspection. In its most simple form, mindful self-awareness can include reflective questions: what am I feeling, why could I be experiencing this feeling, or where in my body am I feeling it? With the use of mindful self-awareness, special educators can carefully consider the daily choices they are making to manage the intense stress they face. When users are able to attend to their bodies, and minds, and emotions, they are able to effectively connect with those aspects of their lives that serve them well, and those which do not. With increased awareness, users can acknowledge and accept each part of themselves, allowing for positive changes (IFSI, 2022; Schwartz, 2013). Increased, intentional mindful self-awareness can activate and balance the inner self. Increased self-awareness can also support daily wellness and resilience initiatives by increasing insight into the specific areas in which stress levels vary

(Guler & Ceyhan, 2021; Williams & Poel, 2006). This includes reflecting on typical daily activities and routines, as well as pointed efforts to change.

In addition to increased mindful self-awareness, inner activation is a central aspect of wellness and resiliency development. Inner activation can require some reflection or experimentation: when do I feel most alive, activated, fulfilled, and excited about life? With increased self-directed attention comes increased insight into functioning. Not only is the objective to pay attention to ourselves, but now, it is to acknowledge what is happening. Specifically, attending to what is being communicated, what is working, what isn't, and what needs adjustment. According to the IFS perspective, personalized wellness comes with activation of the inner self, which can better position one to balance the outer self (Schwartz, 2013; IFSI, 2022). Activation of the inner self involves not only the increased self-awareness (of inner and outer selves), but now increased awareness of the many roles in life, father, special educator, son, brother, Jewish person, baseball coach etc. (Schwartz, 2013; Williams & Lynn, 2011). As users work to delineate the wellness and resiliency development plan-honest reflection about activation is essential- as this will drive much of the other wellness activities. For example, if users feel activated when helping others, how can this type of service activity become realistically integrated into daily/weekly life-while not acting as a stressor? This can be disruptive for some, as they may find that current activities and practices are not fulfilling for them-leading to substantial life changes.

Next the plan should include personalized daily standards of functioning. A wellness and resiliency development plan can limit the pressure to meet external standards, and instead redirect attention and focus inward, to create and nourish one's personalized standard for optimum daily functioning. When quality time is spent acknowledging and nourishing the inner self, the outer self can flourish (Schwartz, 2013; Williams & Lynn, 2011). This will include very specific activities that nourish the mind (reading a new book, listening to a new podcast, completing an art project etc.), body (engaging in exercise, yoga, meditation, hydrating, eating a balanced diet, self-grooming habits etc.) and spirit (engaging in personally engaging activities, attending religious events, engaging in spiritual practices, engaging in hobbies etc.). Specifically, self-care activities such as attention to physical health require personalized attention and self-awareness of one's needs, limitations, and capacities (Guler & Ceyhan, 2021). Intentional self-care and attention across various areas of functioning in life: physiological, social, and familial, can lead to an overall balance. Specifically, healthy daily eating and sleeping habits, regular exercise, formulating a routine/schedule, and establishment of regular emotional regulation activities can assist in the balance of the inner self (IFSI, 2022). With a balanced inner self, one is best positioned to perform academically, occupationally, and interpersonally. Further, choices made with intentional self-awareness today, can increase insight into areas or routines needing change-yielding healthy results tomorrow, and in the future.

Next, focus can be redirected to what IFS counselors refer to as parts-work, which can be achieved by acknowledgment and intentional management of all roles or parts of oneself (IFSI, 2022; Schwartz, 2013). This should be done by attending counseling. Within the counseling profession, the IFS model has been used at the individual, couples, and familial levels to treat various presenting concerns (IFSI, 2022). Specifically, the IFS model has been used to treat post-

traumatic stress disorder, dissociative disorders, eating disorders, mood disorders, and interpersonal/familial discord (IFSI, 2022; Schwartz, 2013).

Lastly, the wellness and resiliency development plan will shift from internal to external-where users are challenged to seek out support and connection with others. Specifically, users will determine where intentional connection with partners, friends, loved ones, family, children, and others who are a part of the user's daily life could be made. External connection can come from a variety of sources and may overlap with some other areas of the plan. For example, one may choose to join a bible study, or a soup kitchen, a cycling club, or yoga class. Other options could include mental health support groups for depression, anxiety, or stress, or occupationally oriented groups such as local chapters of state special educator associations. The intention is to draw a deeper connection with the parts of oneself that may be shared with others-bringing community and validation to the lived experience. Those who share roles, interests, and circumstances may offer support and validation. Support and connection with peers, partnered with validation can assist in mitigating the impact of stress (Tian et al., 2020).

Wellness and resiliency among Special Educators

Since the outbreak of the COVID-19 global pandemic, special educators have faced a variety of chronic professionally oriented daily stressors (Strear et al., 2021). The reaction to these stressors can add to or detract from the weight of these challenges. With optimally functioning special educators, the varying demanding roles and responsibilities can be effectively managed (Ansley et al., 2016). Healthy special educators, void of stress-induced health concerns, are better equipped to maintain critically needed focus and student attention, well as promote positive interactions with students (Ansley et al., 2016). Special educators who engage in stress management, such as wellness practices, report decreased stress levels and illness, partnered with increased reports of energy and attendance rates (Ansley et al., 2016; Kolbe & Tirozzi, 2011). Wellness and resiliency development among special educators can include increased mindful self-awareness, activation of the inner self, acknowledgment of the many roles and parts they have, increased socialization, and increased self-care activities. Engagement in self-care practices can assist in allowing the school administrators, staff, and educators to be more fully present with the learners in the classroom (Strear et al., 2021). Resilience has been noted as a necessary trait among educators (Gu & Day, 2007; Downing, 2017). The development of an open and reflective mindset can sustain individuals as they navigate the daily challenges of providing special education services within a pandemic. Wellness and resiliency are connected-both of which can promote an overall increased professional quality of life for not only special educators, but the exceptional learners they serve (Lawson & Myers, 2011).

Wellness and resiliency throughout COVID-19 and beyond

Within the context of the COVID-19 pandemic, chronic high-stress levels among the nation's special educators must be addressed. While the pursuit of holistic wellness and resiliency development sound positive, this way of life has become increasingly more elusive as the impact of the COVID-19 global pandemic continues to grow. The pandemic has forced many to stretch beyond the norm within personal and professional areas of life, resulting in psychological distress and alterations in wellness practices (Gupta et al., 2021). Unfortunately for many, wellness has evolved into items on the never-ending to-do list, detracting from its healing potential. We hope to shift this perspective by assisting special educators in integrating wellness

and resiliency into daily living. The creation of a wellness and resiliency development plan could assist educators by addressing not only the potential damage the pandemic has done, but can assist them in enduring whatever the future of COVID-19 may bring. Formulating a wellness and resiliency development plan can assist in solidifying a healthy way of life to sustain these professionals throughout the COVID-19 pandemic and beyond. With healthy special educators comes effective exceptional teaching and learning for our children with exceptional learning needs.

The COVID-19 global pandemic has adversely impacted overall wellness and mental health across several demographic factors (Gupta et al., 2021). The COVID-19 pandemic has applied unprecedented pressure on professional functioning (Herman et al., 2021). Special educators can work toward wellness and resilience development daily, in pursuit of lasting health. By its nature, wellness is intended to be not only a healing source but also a preventative process and tool to sustain lasting health (GWI, 2022). Specifically, the goal of wellness is not necessarily to balance work and life, as both are parts of our outer self, but to balance our internal, or inner self (Schwartz, 2013). When we work to arouse and balance our inner selves, we are best positioned to promote healthier, sustainable choices for our outer selves (Schwartz, 2013). Special Educators who intentionally pursue resilience and wellness with every choice-can nourish their inner and outer selves today, serving their health tomorrow, and the beyond.

Conclusion

As the nature of the COVID-19 pandemic continues to evolve, how professionals care for themselves and manage stress must also continue to adjust. Prior to the initiation of the COVID-19 global pandemic, the special education profession was one with substantial daily stressors. As the pandemic progressed, these professionals faced unprecedented daily stress levels. Here we have illuminated the unique stressors and COVID-19 specific stressors these professionals face daily. We have also illuminated the potential impact high levels of chronic stress can have on individuals personally and professionally. We have highlighted the importance of wellness and resiliency development plans for these professionally, not only to support their current functioning, but as the pandemic continues. Wellness and resiliency development plans include: initiation of mindful self-awareness, examination of inner-self activation, development of standards of optimum daily functioning, the importance of parts work, and lastly the external work of seeking support, connection and validation from others. The wellness and resiliency of special educators will promote exceptional teaching and learning among our children with exceptional learning needs. With healthy special educators comes exceptional teaching and learning for our children with exceptional learning needs.

References

- American Psychological Association (APA). (2022a). *Stress and decision making during the pandemic*. Retrieved from: <https://www.apa.org/news/press/releases/stress/2021/october-decision-making>
- American Psychological Association (APA). (2022b). *Stress effects on the body*. Retrieved from: <https://www.apa.org/topics/stress/body>

- Ansley, B. M., Houchins, D., & Varjas, K. (2016). Optimizing special educator wellness and job performance through stress management. *Teaching Exceptional Children*, 48(4), 176-185.
- Barringer, P., & Orbuch, D. (2013). Stress, wellness, and compliance: Practical strategies for reducing stress, improving personal health, and engaging your employees. *Journal of Health Care Compliance*, 15(1), 23-52.
- Ben-Zur, H., & Michael, K. (2020). Positivity and growth following stressful life events: Associations with psychosocial, health, and economic resources. *International Journal of Stress Management*, 27(2), 126-134. <https://doi.org/10.1037/str0000142>
- Billingsley, B. S. (2004). Special education teacher retention and attrition a critical analysis of the research literature. *Journal of Special Education*, 38, 39-55. doi:10.1177/00224669040380010401
- Burgess, S., & Sievertsen, H. H. (2020). Schools, skills, and learning: The impact of COVID-19 on education. *VoxEu. org*, 1(2).
- Center for Disease Control (CDC). (2022). *COVID Data Tracker*. Retrieved from: <https://covid.cdc.gov/covid-data-tracker/#datatracker-home>
- Correa, N., & First, J. M. (2021). Examining the mental health impacts of COVID-19 on K-12 mental health providers, schoolteachers, and students. *Journal of School Counseling*, 19(42), 1-26.
- Council for Exceptional Children (CEC). (2022). *Special education professional ethical principles*. Retrieved from: <https://exceptionalchildren.org/standards/ethical-principles-and-practice-standards>
- Davis, M. T., Holmes, S. E., Pietrzak, R. H., & Esterlis, I. (2017). Neurobiology of chronic stress-related psychiatric disorders: Evidence from molecular imaging studies. *Chronic stress (Thousand Oaks, Calif.)*, 1, 2470547017710916. <https://doi.org/10.1177/2470547017710916>
- Deckro, G. R., Ballinger, K. M., & Hoyt, M. (2002). The evaluation of a mind/ body intervention to reduce psychological distress and perceived stress in college students. *Journal of American College Health*, 50(6), 281-297.
- Doutre, S. M., & Willis, J. (2021). Is special education funding immune to COVID-19? Challenges facing state and local special education leaders and strategies to mitigate the pandemic's impact. *Journal of Special Education Leadership*, 34(1), 5-18.
- Downing, B. (2017). Special education teacher resilience: A phenomenological study of factors associated with retention and resilience of highly resilient special educators [ProQuest LLC]. In *ProQuest LLC*.
- Edmeade, J., & Buzinde, C. N. (2021). Educators' personal resilience in the context of disasters triggered by natural hazards: The case of the United States Virgin Islands (USVI). *International Journal of Disaster Risk Reduction*, 66. <https://doi.org/10.1016/j.ijdr.2021.102571>
- Ellicott A., Hammen C., Gitlin M., Brown., & Jamison, K. (1990). Life events and the course of bipolar disorder. *Am J Psychiatry*, 147(9): 1194-1198. Crossref. PubMed.
- Emery, D. W., & Vandenberg, B. (2010). Special education teacher burnout and ACT. *International Journal of Special Education*, 25, 119-131.
- Fish, W. W., & Stephens, T. L. (2010). Special education: A career of choice. *Remedial and Special Education*, 31(5), 400-407. <https://doi.org/10.1177/07419325093555961>

- Gu, Q., & Day, C. (2007). Teacher's resilience: A necessary condition for effectiveness. *Teaching and Teacher Educations*, 23, 1302-1316. <https://doi.org/10.1016/j.tate.2006.06.006>
- Guler, D., & Ceyhan, E. (2021). Development of self-care behaviours in counsellors-in-training through an experiential self-care course: An action research. *British Journal of Guidance & Counselling*, 49(3), 414-434.
- Gupta, A., Puyat, J. H., Ranote, H., Vila-Rodriguez, F., & Kazanjian, A. (2021). A cross-sectional survey of activities to support mental wellness during the COVID-19 pandemic. *Journal of Affective Disorders Reports*, 5. <https://doi.org/10.1016/j.jadr.2021.100167>
- Harvard Health Publishing (2020). *Understanding the stress response: Chronic activation of this survival mechanism impair health*. Retrieved from <https://www.health.harvard.edu/staying-healthy/understanding-the-stress-response>
- Herman, K. C., Reinke, W. M., & Eddy, C. L. (2020). Advances in understanding and intervening in teacher stress and coping: The coping-competence-context theory. *Journal of School Psychology*, 78, 69-74. <https://doi.org/10.1016/j.jsp.2020.01.001>
- Herman, K. C., & Reinke, W. M. (2014). *Stress management for teachers: A proactive guide*. Guilford Publications.
- Herman, K. C., Sebastian, J., Reinke, W. M., & Huang, F. L. (2021). Individual and school predictors of teacher stress, coping, and wellness during the COVID-19 pandemic. *School Psychology*, 36(6), 483-493. <https://doi.org/10.1037/spq0000456>
- Hunter, E. O. (2021). *Relationship between wellness, resilience, and vicarious trauma among clinical mental health counselors serving interpersonal violence survivors* (Doctoral dissertation, Walden University).
- Internal Family Systems Institute (IFSI). (2022). *The internal family systems model outline*. Retrieved from: <https://ifs-institute.com/resources/articles/internal-family-systems-model-outline>
- Jones, N. D., Young, P., & Frank, K. A. (2013). The role of school-based colleagues in shaping the commitment of novice special and general education teachers. *Exceptional Children*, 79(3), 365-383. <https://doi.org/10.1177/001440291307900303>
- Koehler, G. (2001). Stress management exercises for teachers and students. *Strategies*, 15(2), 7-10.
- Kolbe, L. J., & Tirozzi, G. N. (2011). *School employee wellness: A guide for protecting the assets of our nation's schools*. Atlanta, GA: Centers for Disease Control.
- Lancet (1997). Alternative projections of mortality and disability by cause 1990-2020: *The Global Burden of Disease Study*, 349, 1498-1504.
- Lawson, G., & Myers, J. E. (2011). Wellness, professional quality of life, and career sustaining behaviors: What keeps us well? *Journal of Counseling and Development*, 89, 163-171. doi: 10.1002/j. 15 56-6678.2011.tb00074.x
- MacIntyre, P., Gregersen, T., Mercer, S. (2020) Language teachers' coping strategies during the Covid-19 conversion to online teaching: Correlations with stress, 21 wellbeing and negative emotions. *System* (94), <https://doi.org/10.1016/j.system.2020.102352>
- Myers, J. E., & Sweeney, T. J. (2004). The indivisible self: An evidence-based model of wellness. *Journal of Individual Psychology*, 60(3), 234-245. Retrieved from: <https://searchebshost.com.ezp.waldenulibrary.org/login.aspx?direct=true&db=psych&AN=2004-21594-004&site=eds-live&scope=site>

- Myers, J. E., & Sweeney, T. J. (2008). Wellness counseling: The evidence base for practice. *Journal of Counseling & Development*, 86, 482–493. doi:10.1002/j.1556-6678.2008.tb00536.x
- Nagel, L., & Brown, S. (2003). The ABC's of managing teacher stress. *The Clearing House*, (76)5, 255-258.
- National Center for Education Statistics (2020). Retrieved from <https://www.edweek.org/ew/section/multimedia/map-coronavirus-and-school-closures.html>
- National Council on Teacher Quality. (2014). *Roll call: The importance of teacher attendance*. Retrieved from: http://www.nctq.org/dmsView/RollCall_TeacherAttendance
- Padesky, C. A., & Mooney, K. A. (2012). Strengths-based cognitive-behavioural therapy: A four-step model to build resilience. *Clinical Psychology & Psychotherapy*, 19(4), 283–290. <https://doi.org/10.1002/cpp.1795>
- Reffner, J. M. (2022). Brain-body parenting: How to stop managing behavior and start raising joyful, resilient kids. *Library Journal*, 147(2), 85.
- Sayman, D., & Cornell, H. (2021). Building the plane while trying to fly: Exploring special education teacher narratives during the Covid-19 pandemic. *Planning & Changing*, 50(3/4), 191–207.
- Schetter CD, Dolbier C. Resilience in the context of chronic stress and health in adults. *Soc Personal Psychol Compass*, 5(9), 634-652. doi: 10.1111/j.1751-9004.2011.00379.x.
- Schwartz, R. C. (2013). Moving from acceptance toward transformation with internal family systems therapy (IFS). *Journal of Clinical Psychology*, 69(8), 805–816. <https://doi.org/10.1002/jclp.22016>
- Schmidt, M. V., Sterlemann, V., & Müller, M. B. (2008). Chronic stress and individual vulnerability. *Annals of the New York Academy of Sciences*, 1148, 174–183. <https://doi.org/10.1196/annals.1410.017>
- Strear, M., Duffy, H., & Sunde, A. (2021). When schools go dark, school counselors shine: School counseling during a global pandemic. *American Institutes for Research*. Retrieved from: <https://www.air.org/resource/when-schools-go-dark-school-counselors-shine-school-counseling-during-global-pandemic>
- Tait, M. (2008). Resilience as a contributor to novice teacher success, commitment, and retention. *Teacher Education Quarterly*, 35, 57-76.
- The American Institute of Stress (AIS). (2022). *America's #1 health problem*. Retrieved from: <https://www.stress.org/americas-1-health-problem>
- The Global Wellness Institute (GWI). (2022). *What is wellness*. Retrieved from: <https://globalwellnessinstitute.org/what-is-wellness/>
- Tian, X., Solomon, D. H., & Brisini, K. S. C. (2020). How the comforting process fails: Psychological reactance to support messages. *Journal of Communication*, 70(1), 13–34. <https://doi.org/10.1093/joc/jqz040>
- Tsouloupas, C. N., Carson, R. L., Matthews, R., Grawitch, M. J., & Barber, L. K. (2010). Exploring the association between teachers' perceived student misbehaviour and emotional exhaustion: The importance of teacher efficacy beliefs and emotion regulation. *Educational Psychology*, 30, 173–189. doi:10.1080/01443410903494460
- United States Department of Health and Human Services (2016). National strategy for suicide prevention: Goals and objectives for action. Rockville. *The Yale Textbook of Public Psychiatry*. 349: 111.

- United States Department of Education (2023). *About individuals with disabilities education act (IDEA)*. Retrieved from: <https://sites.ed.gov/idea/about-idea/#Rehab-Act>
- Virginia Department of Education (VDOE). (2021a). *Board of education teacher performance standards and evaluation criteria: Guidelines for uniform performance standards and evaluation criteria for teachers*. Retrieved from: https://www.doe.virginia.gov/teaching/performance_evaluation/teacher/index.shtml
- Virginia Department of Education (VDOE). (2022b). *About VDOE*. Retrieved from: <https://www.doe.virginia.gov/about/index.shtml>
- Williams, J. C., & Lynn, S. J. (2011). Acceptance: An historical and conceptual review. *Imagination, Cognition, and Personality*, 30, 5-56.
- Williams, K., & Poel, E. W. (2006). Stress management for special educators: The self-administered tool for awareness and relaxation (STAR). *Teaching Exceptional Children Plus*, 3(1), 1.
- World Health Organization (WHO). (2020). *Coronavirus*. Retrieved from <https://www.who.int/health-topics/coronavirus>

About the Authors

Dr. Elizabeth O'Neill Hunter, a PhD in Counselor Education and Supervision, is a board approved clinical supervisor, and Licensed Professional Counselor in the Commonwealth of Virginia. Dr. Hunter is a Nationally Certified Counselor, and a Certified Clinical Anxiety Treatment Provider. Currently Dr. Hunter provides clinical supervision services to community mental health counselors within the non-profit sector and throughout the Hampton Roads Community. Dr. Hunter is a contributing faculty member within the Walden University Community Mental Health Counseling graduate program, and is serving as the President of the Hampton Roads Counselors Association.

Dr. Elizabeth Anderson Hunter, has more than 20 years of experience in the field of Special Education and more than 30 years of experience in Communication Technology. She has dedicated her life to students with exceptional needs and to those who teach them and has been involved in numerous publications and presentations in her areas of expertise. Dr. Hunter served as assistant professor in the Regent University School of Education M.Ed. K-12 Special Education & Reading Specialist Programs, the Autism Certificate, and the Ed.S. Educational Leadership with Special Education emphasis program. Dr. Hunter has been involved in numerous publications and presentations in her areas of expertise and holds honors and awards for her contributions to both fields. Dr. Hunter has served on the Va CEC Executive Board in the positions of the Immediate Past President, and President and, Parliamentarian. She has enjoyed a long membership with the International CEC and has served on the Representative Assembly for many terms. Dr. Hunter consults with ETS in assessment development of the Special Education and the Intellectual Disabilities PRAXIS II exams. Additionally she consults privately with schools, churches, and parents in the areas of exceptional disabilities especially Developmental Delay, Autism Spectrum Disorder, and Intellectual Disabilities. She has taught and co-taught all courses in the K-12 Sped and Reading Specialist Programs & Autism Certificate and teaches several in the Ed.S. (Special Education Emphasis) Program. Dr. Hunter has expertise in instructional technology and media and enhances her on-line and face-to-face courses and publications with visual media technology. She pursues ethnographic research to produce

educational and documentary film with content based on grounded research that is appropriate for use in higher education. She writes and produces educational articles and books utilizing instructional videos and documentary film that educate and entertain.

Appendix A: Personalized, Prescriptive Wellness and Resiliency Development Plan

- **Mindful self-awareness** (*Example: daily reflective journaling-what am I feeling? Why could I be feeling this? Where in my body do I notice this feeling?*)
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- **When do I feel most activated- most energized as a human being?** (*Example: When serving others, When in nature? When attending a religious or spiritual event? When taking good care of myself? When I accomplish my goals, When engaging in my hobbies? When well rested, When meditating, When spending time with friends or loved ones, When freeing myself from the expectations of others etc.*)
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- **What are my standards for optimum daily functioning:** (*Examples: eat 3 balanced meals, hydrate, exercise, limit caffeine intake, engage with partner and family in a fully present manner, shower etc.*)
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- **What are my parts-(via therapy or self-exploration) managers, exiles, firefighters?**
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- **Seek support and connection from others** (*Example: peers, loved, ones, support groups for those who share a common interest or concern (mental health support groups, cycling groups, yoga class, art classes etc.)*)
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Parent Involvement in Sexuality Education Programs for Individuals with Developmental Disabilities: A Thematic Review

Rebecca R. Kammes, PhD, LMFT
University of California, Los Angeles

Rhonda S. Black, EdD
University of Hawaii-Manoa

Emily C. Tucker, PhD
Oklahoma State University

Abstract

People with developmental disabilities (DD) lack access to many aspects of sexuality education and often experience restrictions in romantic relationships. One factor contributing to this lack of access includes parents feeling uncomfortable providing appropriate sexuality education to their children with DD despite being the primary source of this information. To better understand what supports are available to parents, the current thematic review explored the existing literature on sexuality education for individuals with DD that explicitly includes parent involvement. Resulting literature was thematically clustered into four categories (a) parent opinion on curriculum/program content or delivery; (b) parent participation as a training recipient; (c) parent feedback and post-implementation outcomes, and (d) recommendations from program developers on how to better utilize parents. Current literature highlights how parents can have a meaningful role in the development of sexuality programs, and how individuals with DD can greatly benefit from programs that include parent involvement.

Keywords: sexuality education, developmental disability, parents

Parent Involvement in Sexuality Education Programs for Individuals with Developmental Disabilities: A Thematic Review

Parents play a significant role in the daily lives of adults with developmental disabilities (DD) who rely on parents and other family members far longer than typically developing (TD) peers or siblings (Pownall et al., 2012). Parental duties include assisting their adult child in finding employment, acquiring daily living skills, and providing socialization opportunities. While TD adults in Western cultures tend to form social relationships without parental involvement, parents of adults with DD have much greater influence in facilitating, supporting, and/or controlling interpersonal relationships (Cheak-Zamora et al., 2015; Healy et al., 2009). Parents often determine their child with DD's exposure to relationship experiences (Foley, 2012) and have influence over dating activities (Rushbrooke et al., 2014). Thus, many family members (and/or staff) may become gatekeepers to knowledge and opportunities related to intimate and sexual relationships for adults with DD (de Wit, 2022).

Whether directly or indirectly, parents of individuals with DD are the most consistent and influential source of information about interpersonal and intimate relationships for their children. Due to many factors, individuals with DD rely less on peers and teachers, and more on parents and caregivers for information related to sexuality (Pugliese et al., 2019). However, parents have

trouble initiating discussions about sexual relationships, feel uncomfortable or embarrassed, or struggle with *how* to teach about sexuality (Pugliese et al., 2019; Stein et al., 2018). It appears that parents want sexuality education for their children, but they are not sure how to provide it and are looking to professionals for support.

There is an abundance of literature stating that people with DD lack access to many aspects of sexuality education and experience restrictions in forming romantic relationships (Black & Kammes, 2019). Although more parents and professionals recognize the need for sexuality and healthy relationship education for individuals with DD (Stein et al., 2018; de Wit et al., 2022), there is a lack of consensus regarding who should provide this education. Most of the professional literature focuses on teachers and/or staff members providing sexuality education. Yet, given the importance of parents in their adolescent or child's life, it is important to investigate the role of parents in providing sexuality education.

Sexuality Education Through the Decades

Parents need preparation and support in providing accurate information to guide the development and maintenance of healthy intimate relationships for their children with DD. Over 50 years ago, Kempton and colleagues (1978) recognized the need for parent education and published "*A Guide for Parents: Love, Sex and Birth Control for Mentally Retarded*." However, it is not clear how many parents used this information and whether they were supported in doing so. Starting in the 1970s, a few sexuality training programs for people with DD emerged that included minimal parent involvement (Kempton, 1978; Rothenburg et al., 1979). These trainings focused on teaching about anatomy, sexual development, and sexually transmitted infections and included meetings to provide information for the parents and opportunities to ask questions.

In the 1980s, Demetral (1983) described a training program for both mothers and daughters with respect to hygiene and menstruation. However, most other training during that time was provided by staff in disability support programs without the inclusion of parents. In the 1990s, the focus shifted to providing group therapy for parents. Pendler and Hingsburger (1991), Meister (1994) and Blakey (1996) all described group therapy sessions designed solely for parents focused on fostering acceptance of their child's sexuality, reducing parents' anxiety, and building realistic relationship goals for their children with DD. In these sessions, therapists provided parents with information as well as offered opportunities to engage. Parents were encouraged to talk with each other, discuss their concerns, engage in group problem-solving about challenging situations, and discuss ways to talk to their young adult with DD.

Another development in the 1990s was asking for parent input regarding the content of sexuality training for young adults and adults with DD. Walcott (1997) asked for parent input when developing a training manual. In monthly meetings, Brooks (1992) provided parents with an overview of what was being taught in an education program for adolescent/young adults with DD and provided parents with tools for how to continue conversations with their children outside of school. Brooks also asked parents about their adolescent/young adult's behavior following receipt of sexuality training. Similarly, Carter (1999) provided parents an outline of course content and a schedule of sexuality training topics covered with their children without parents present and encouraged parents to continue and extend class discussions at home.

Historically, professionals who developed and implemented sexuality training programs for individuals with DD involved parents only minimally. Professionals provided information to parents about what their children would be learning away from home, or group therapy was provided to support parents, but teaching parents *what* information to discuss with their young adult or *how* to provide support has not been common practice.

Purpose of the Review

Therefore, the purpose of this review was to identify and summarize current studies discussing sexuality education curricula or programs for persons with DD that specifically included parents or caregivers *and* persons with DD within the same study. The goal was to thematically summarize research published in this area to understand how parents/caregivers are being included within sexuality education program development and implementation. This review will add to the knowledge base in this area and help provide a framework of what is already being done and guidelines for moving forward with research in this area.

Method

The research team searched multiple academic literature databases in January of 2020 and again in January of 2022. See Figure 1 for a visual representation of the selection process. Search engines explored were (a) Academic Search Premier, (b) ERIC, (c) Psychology and Behavioral Sciences Collection, (d) Social Sciences Full Text, and (e) ProQuest (all databases). The search was limited to peer reviewed, full text, and English language articles. Search terms used were: (a) *sex education or sexuality curriculum*, AND (b) *intellectual disability or mental retardation or developmental disability or learning disability or cognitive delay or Autism*, AND (c) *parent or caregiver or guardian*. After the removal of duplicates, initial searches resulted in a total of 762 articles. Abstracts of all articles were screened to determine fit. During this process, we excluded 670 articles, resulting in 92 articles going through a full article review. The most common reasons for abstract exclusion were due to articles discussing “sex and gender of participants” and/or “parenting related to sex and gender” as opposed to “sexuality education.” During full review, two members of the research team reviewed each article, and each reviewer created a summary of the article's information. During this process a further 23 articles were excluded as they did not fit the criteria. We excluded another 43 articles because they focused on parent attitudes and communication around the topic of sexuality with their child with DD and did not describe a specific program or curriculum. As the topic of sexuality education has gone through significant changes in recent decades, we also excluded another 14 articles that were published prior to the year 2000 to keep the review current. A final set of 12 articles were retained for thematic analysis. Although we conducted an ancestral search on the final articles, we found no additional articles.

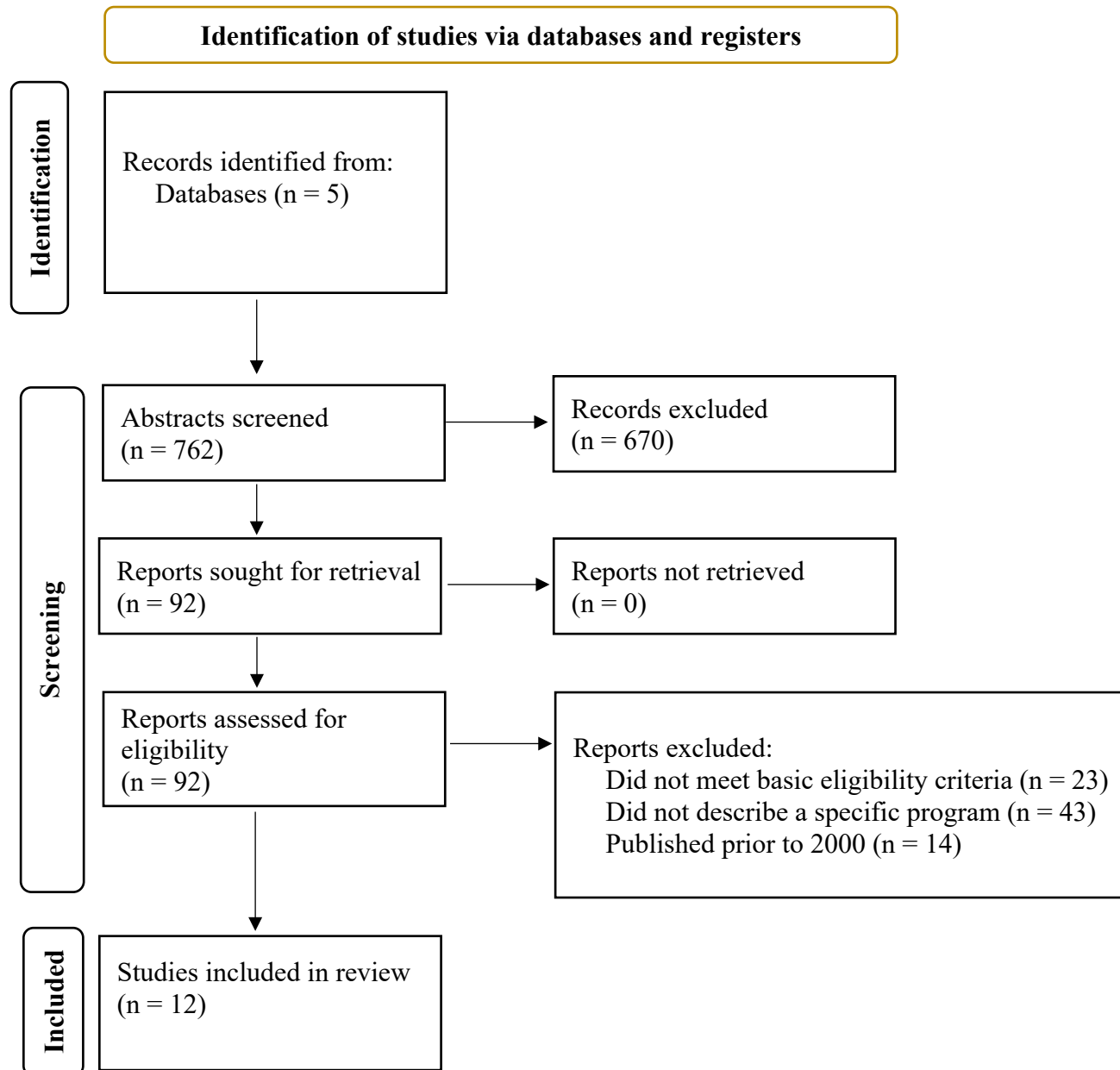


Figure 1. PRISMA flowchart of the study selection process (Page et al., 2020)

The research team conducted a thematic review of the article summaries (Braun & Clarke, 2006). All three authors read each summary to determine emerging themes. We specifically extracted information regarding descriptions of the parent/caregiver involvement in the study, in what ways they were involved, results that arose from the studies or intervention delivery, and any recommendations or next steps the authors provided. All three researchers then met to compare and discuss their summaries, and together developed final overarching themes.

Of the 12 articles summarized, four took place in the United States: Washington D.C., Illinois, New York, and California. Those outside of the United States took place in: Taiwan (2), Macedonia, Turkey, Israel, Austria, England, and Canada. The two articles that took place in Taiwan were separate articles discussing the same intervention. See Table 1 for a summary of the studies reviewed.

Table 1

Descriptions of studies examining parent involvement in sexuality education programs for individuals with DD

First author (year)	Location	Participants	Parent intervention description	Parent data collection methods
Chou et al. (2019)	Taiwan	57 parents of adults with ID aged 36-75 43 mothers, 14 fathers	Program provided to parents and included watching movies, engaging in small group discussions, and receiving feedback from the group	Interviews and questionnaires
Chou et al. (2020)	Taiwan	73 adults with ID aged 19-43 45 males, 28 females 6 parents	Program provided to adults and parents viewed two movies and engaged in group discussions	Interviews
Corona et al. (2016)	US (New York)	8 adolescents with ASD aged 12-16 8 parents 6 mothers, two fathers	Program provided to youth and concurrently parents attended informational sessions that included strategies to support the youth	Questionnaires
Frank et al. (2019)	US (Illinois)	None—article is description of the intervention only	3 workshops developed for and provided directly to parents	None—article is description of the intervention only
Klett et al. (2012)	US (California)	3 female youth with ASD aged 9-12 3 mothers	Individualized social stories developed for each youth, parents trained to deliver the intervention and take observational data	Interviews and surveys
Kok et al. (2015)	Turkey	Youth with ID aged 10- 19 62 parents aged 31-49 38 mothers, 24 fathers	Parents were interviewed pre-treatment to determine content of programming, and then were given content information for each session	Interviews

Murray (2019)	Canada	Youth with ID aged 16-21 Parents and teachers of these youth, no demographic information given	Program provided to youth and parents/teachers attended one informational meeting	Surveys
Plaks et al. (2010)	Israel	10 youth with ID aged 15-24 14 parents	Program provided to youth and concurrently parents attended information and group support sessions	Interviews and questionnaires
Plaute et al. (2002)	Austria	200 adults with ID aged 17 or older 50 parents, mostly mothers	Program provided to both adults and their parents in the same room and focuses on education as well as building communication	Interviews and surveys
Strang et al. (2020)	US (Washington D.C.)	31 youth with ASD aged 12-19 46 parents 30 mothers, 16 fathers	Program manual that was developed was analyzed and assessed by parents	Interviews
Tarnai et al. (2008)	US (Pennsylvania)	None—article is description of the intervention only	Individualized social stories for youth that parents can deliver	None—article is description of the intervention only
Tissot (2009)	England	7 youth with ASD aged 11-19 6 males, 1 female Parents of these youth, no demographic information given	Individualized programs given to the youth; consultations occurred with parents as needed per participant	Interviews

Note. ID-intellectual disability; ASD-autism spectrum disorder

Results

This thematic review resulted in four overarching themes or ways that parents are often involved: (a) parent opinion on curriculum/program content or delivery; (b) parent participation as a training recipient; (c) parent providing feedback and outcomes after the curriculum was delivered; and (d) recommendations from program developers on how to utilize parents in the future.

Parent Opinion on Curriculum/Program Development or Delivery

Of the 12 articles reviewed, seven included parents during the development process to elicit opinions on the curriculum/program (Frank & Sandman, 2019; Klett & Turan, 2011; Kok & Akyuz, 2015; Plaute et al., 2002; Stankova & Trajkovski, 2021; Strang et al., 2021; Tissot, 2009). The authors of these studies sought parental input on what topics to cover, desired knowledge, and behavior changes they wanted to see in their child following implementation. In one article (Tissot, 2009), parents reviewed the curriculum and provided feedback after its creation by the researchers. Another study (Frank & Sandman, 2019) had parents participate in more extensive workshops, allowing them to contribute ideas on the curriculum content and delivery methods. Parents then reviewed materials after they were created. All articles discussed

the importance of incorporating parent opinions or ideas in the curriculum/program, and all discussed the importance of the parental role and the fact that parents are often the best situated to meet their children's needs.

Parent Participation as Recipient of Training

Seven out of 12 articles discussed parents being directly involved as participants in the delivery of instructional content (Chou et al., 2019; Chou et al., 2020; Corona et al., 2015; Kok & Akyuz, 2015; Murray, 2019; Plaks et al., 2010; Plaute et al., 2002). Only two articles included parents in both the development and delivery processes (i.e., received the curriculum directly after providing feedback during the curriculum development process: Kok & Akyuz, 2015; Plaute et al., 2002). The parent components were mostly a mix of psychoeducational instruction with the ability to discuss or share with other parents. For most studies, the parent component ran concurrently but separately from the components delivered to participants with DD. In one study (discussed in two articles; Chou et al., 2019; Chou et al., 2020), parents viewed two movies related to sexuality education, and then engaged in group discussions with the other parents and a group leader. In four studies (Corona et al. 2015; Kok & Akyuz, 2015; Murray, 2019; Plaks et al., 2010), parents received parallel training separately, but at the same time their child with DD simultaneously received instruction. Most commonly, these groups covered the content, as well as facilitating discussions on strategies to support their family member in their learning. Plaute et al. (2002) provided instruction for the parents separately for the first three sessions, then parents and their adult child with DD received instruction together for the final two sessions of the group. Murray (2019) included parents by having them attend only one informational meeting before the groups began.

Parent Feedback and Post-Implementation Outcomes

Most studies reported on the outcomes of the person with a disability, and not on the parents as participants. Consequently, details about parental characteristics such as which parent was present, age ranges of parents, or their relationship with their child was not always clear. The only study that measured parent sexuality knowledge pre and post implementation was Kok and Akyuz (2015). They found that all parents reported an increase in their sexuality knowledge, as well as reporting an increase in their self-efficacy and comfort with teaching sexuality topics to their child with DD. All other studies that included parents in the intervention either (a) solicited parents' opinions of the programs/curriculum provided, (b) assessed parents' overall comfort with sexuality education for their child with DD, or (c) collected feedback from parents on their child's outcomes in sexual knowledge or sexual behaviors. Some studies gained feedback from parents through measures and questionnaires (Chou et al., 2019; Chou et al., 2020; Corona et al., 2015; Klett & Turan, 2011; Plaks et al., 2010; Strang et al., 2021). In some studies, parents participated in qualitative interviews to provide feedback on their experiences and any changes they observed in their child (Chou et al., 2019; Chou et al., 2020; Klett & Turan, 2011; Murray, 2019; Plaute et al., 2002; Stankova & Trajkovski, 2021; Tissot, 2009). All studies that gained feedback from parents reported that they (a) saw an increase, or a positive and helpful change, in their child's sexuality knowledge, (b) were more comfortable with the topic of sexuality, (c) and that they perceived their respective program as helpful and useful for both them and their children.

Parents' Recommendations for Future Programs and Research

Across the reviewed studies, a consistent theme emerged: parental recommendations for future studies and program development/curriculum. All studies emphasized the pivotal role parents play in sexuality education for individuals with disabilities and underscored the need for comprehensive parental inclusion in future sexuality education groups. Many of the studies highlighted that parents require direct information to enhance their comfort levels. Parental comfort was identified as a crucial factor for beneficial outcomes related to parent-provided sexuality education for persons with DD. Studies that involved parents in the curriculum stressed the importance of gaining parents' opinions and feedback to ensure that the material aligns with parents' priorities. In three studies (Chou et al., 2019; Chou et al., 2020; Plaks et al., 2010) authors specifically discussed the importance of helping parents feel more comfortable discussing sexuality with their children. They also discussed parents learning to accept their child as a potentially sexual being and helping them advocate for sexual and relationship rights. All studies recommended utilizing parents in developing sexuality curricula with researchers focusing on parents as active participants in sexuality education research. In summary, involving parents comprehensively and addressing their comfort and knowledge is essential for effective sexuality education programs for adults with DD.

Discussion

This thematic review provides insight into how parents or caregivers are being included in research and development of sexuality education programming for their family members with DD. Since 2000, there has been a notable increase in both involving parents in the design of sexuality curricula as well as utilizing them as participants in training programs. This is an important shift given the significant impact that parents have in the lives of their children with DD, especially in sexuality education and development (Foley, 2014). Active parent participation is extremely important to ensure that curriculum content is appropriate to their children's lived experiences, and that it is delivered in a feasible and useful format. Unfortunately, parents are still being relatively under-utilized as active participants in interventions or curricula.

Research on parents of nondisabled children and adolescents has demonstrated that empowering parents to discuss sexuality with their children is effective in increasing parent-child communication and supports healthy decisions about sexual behavior (Bundy & White, 1990; Klein et al, 2003). We would assume that similar benefits apply to parents of adolescents and adults with DD. Although written advice is available for parents on how to talk to their children about sex, most of this material is written for parents with typically developing (TD) children. There is much less written for parents of children with DD, and even less for parents whose children with DD have matured to adulthood. While books may be helpful, they are not enough. It may be more beneficial to provide actual training and support for parents in how to approach topics of intimate and sexual relationships. Parents deserve opportunities to interact with others, share experiences, and gain practical skills in addressing these crucial conversations. While many of the studies reviewed did include a parent component within the curriculum, these were often of a more superficial and supplementary nature. Parents would benefit from more direct instruction not only in the sexuality content itself, but also in *how* to have conversations around sexuality and utilize that information with their child to increase knowledge, awareness, and healthy relationship activities.

Limitations

The first limitation of this review is that it was conducted as only a brief thematic review. No in-depth analyses or systematic review was conducted. Most articles reviewed did not report results of an intervention and only described the development or implementation of the intervention. And those that did report results mostly reported only on the individual with the disability who attended the program. Therefore, this review cannot provide information on whether certain programs involving parents were more effective than others. This review was conducted simply to provide a touchpoint of research in this area. Another limitation of this review is that we were looking for articles in which parent involvement in programs was either the focus of the article or was described in enough detail to provide sufficient information to review. This excluded much of the literature on sexuality interventions for adults with DD as many articles had either no, or only very brief, mention of how parents were involved. Even within the articles reviewed, there was still a significantly limited amount of text on the topic to review.

Recommendations for Research and Practice

This review provides implications for research and practice. For research, parents should be included more often in the development of curricula and within research projects. Parents are a very important factor for general development of this population and research will be more applicable if parents are included. Future research should focus on the best methods to provide support for the unique role that parents of children with DD play in the topic area of sexuality, including types of training and materials. It would be interesting to explore further what format of instruction and guidance is best suited to helping parents, and to examine the impact that communication training could have alongside direct content instruction or discussion-based groups. It would also be beneficial for future research to explore how sexuality and romantic relationship discussions impact the parental/child relationship overall.

There are also recommendations for practice for educators and clinicians. For clinicians, this review emphasizes the importance of support groups for parents. Parents of individuals with DD benefit greatly from the opportunity to come together and engage in dialogue with other parents to help them feel more confident and less stressed when handling issues related to sexuality. They also can understand that many other parents are having the same struggles and experiences. For clinicians, it is recommended to engage with the topic of sexuality as a development and mental health issue and use sexuality education as an important component of healthy development when working with individuals with DD and their families.

For educators, there should be an increased focus on providing sexuality information to parents to ensure they are more comfortable with the topic and feel prepared to have these discussions with their children. Parents are often the best educators for their child (Pownall et al., 2012), and everyone can benefit when educators utilize parents more effectively with planning and training. One recommendation could be the use of social stories (Tarnai & Wolfe, 2008), as these can be individualized to the child's support needs and parental values and would be easy to implement. Parents often need to be taught both the content (i.e., materials and information) and the process (i.e., taught how and when to talk about the content with the child), as well as how to continue

learning and engagement for their child outside of a training or group. Specifically, parents need to be provided with sexuality information, as well as how to create opportunities for discussion and practice at home and within the community. Utilizing parents more effectively within the realm of sexuality education will increase the outcomes and applicability for the individuals with DD for whom the programs are intended and designed.

References

- Black, R. S., & Kammes, R. R. (2019). Restrictions, power, companionship, and intimacy: A meta-synthesis of people with intellectual disabilities speaking about sex and relationships. *Intellectual and Developmental Disabilities, 57*(3), 212-233. <https://dx.doi.org/10.1352/1934-9556-57.3.212>
- Blakey, V., Frankland, J., Dix, D., & Farrell, M. (1996). Sex education workshops for parents of children with learning disabilities. *British Journal of Learning Disabilities, 24*, 150-153.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Brooks, J. P. (1992). Sex education for students with moderate mental retardation. *Teaching Exceptional Children, 24*(4), 56-57.
- Bundy, M. L. & White, P. N. (1990). Parents as sexuality educators: A parent training program. *Journal of Counseling and Development, 68*(3), 321-323. <https://doi.org/10.1002/j.1556-6676.1990.tb01382.x>
- Carter, J. K. (1999). Sexuality education for students with specific learning disabilities. *Intervention in School and Clinic, 34*(4), 220-223.
- Cheak-Zamora, N. C., Teti, M., & First, J. (2015). ‘Transitions are scary for our kids, and they’re scary for us’: Family member and youth perspectives on the challenges of transitioning to adulthood with autism. *Journal of Applied Research in Intellectual Disabilities, 28*, 548-560. <https://doi.org/10.1111/jar.12150>
- Chou, Y.-C., Lu, Z.-y. J., Chen, B.-W., & Lin, C.-J. (2019). “Transformed rights” sexual health programme evaluation for the parents and service workers of adults with an intellectual disability. *Journal of Intellectual Disability Research, 63*(9), 1125-1136. <https://doi.org/10.1111/jir.12624>
- Chou, Y.-C., Lu, Z.-y. J., Chen, B.-W., & Lin, C.-J. (2020). Awareness of sexual rights and empowerment: Quantitative and qualitative evaluation of a sexual health intervention for adults with intellectual disability. *The Journal of Sex Research, 57*(9), 1202-1216. <https://doi.org/10.1080/00224499.2019.1629383>
- Corona, L. L., Fox, S. A., Christodulu, K. V., & Worlock, J. A. (2015). Providing education on sexuality and relationships to adolescents with autism spectrum disorder and their parents. *Sexuality and Disability, 34*(2), 199-214. <https://doi.org/10.1007/s11195-015-9424-6>
- de Wit, W., van Oorsouw, W. M. W. J., & Embregts, P. J. C. M. (2022). Sexuality, education and support for people with intellectual disabilities: A systematic review of the attitudes of support staff and relatives. *Sexuality and Disability, 40*(2), 315-346. <https://doi.org/10.1007/s11195-021-09724-w>
- Demetral, G. D., Driessen, J. & Goff, G. A. (1983). A proactive training approach designed to assist developmentally disability adolescents deal effectively with their menarche. *Sexuality and Disability, 6*, 38 - 46. <https://doi.org/10.1007/BF01119848>

- Foley, S. (2014). A modest proposal regarding the power of parents to optimize the sexual well-being of their adult sons and daughters with down syndrome. *Sexuality and Disability*, 32, 383-396. <https://doi.org/10.1007/s11195-013-9309-5>
- Frank, K., & Sandman, L. (2019). Supporting parents as sexuality educators for individuals with intellectual disability: The development of the Home B.A.S.E curriculum. *Sexuality and Disability*, 37(3), 329–337. <https://doi.org/10.1007/s11195-019-09582-7>
- Healy, E., McGuire, B. E., Evans, D. S., & Carley S. N. (2009). Sexuality and personal relationships for people with an intellectual disability. Part I: service-user perspectives. *Journal of Intellectual Disability Research*, 55(11), 905-912. <https://doi.org/10.1111/j.1365-2788.2009.01203.x>
- Kempton, W. (1978). Sex education for the mentally handicapped. *Sexuality and Disability*, 1(2), 137-146.
- Klein, J. D., Sabaratnam, P., Pazos, B., Auerbach, M. M., Havens, C. G., & Brach, M. J. (2003). Evaluation of the parents as primary sexuality educators program. *Adolescent Health*, 37, 94–99. <https://doi.org/10.1016/j.jadohealth.2005.05.004>
- Klett, L. S., & Turan, Y. (2011). Generalized effects of social stories with task analysis for teaching menstrual care to three young girls with autism. *Sexuality and Disability*, 30(3), 319–336. <https://doi.org/10.1007/s11195-011-9244-2>
- Kok, G., & Akyuz, A. (2015). Evaluation of effectiveness of parent health education about the sexual developments of adolescents with intellectual disabilities. *Sexuality and Disability*, 33(2), 157–174. <https://doi.org/10.1007/s11195-015-9400-1>
- Meister, C. M., Norlock, D., Honeyman, S., & Pierce, K. (1994). Sexuality and autism: A parenting skills enhancement group. *Canadian Journal of Human Sexuality*, 3(3), 283-289.
- Murray, B. L. (2019). Sexual health education for adolescents with developmental disabilities. *Health Education Journal*, 78(8), 1000–1011. <https://doi.org/10.1177/0017896919859605>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *Journal of Clinical Epidemiology*, 134, 178–189. <https://doi.org/10.1016/j.jclinepi.2021.03.001>
- Pendler, B. & Hingsburger, D. (1991). Sexuality: Dealing with parents. *Sexuality and Disability*, 9, 123 – 130. <https://doi.org/10.1007/BF01101737>
- Plaks, M., Argaman, R., Stawski, M., Qwiat, T., Polak, D., & Gothelf, D. (2010). Social-sexual education in adolescents with behavioral neurogenetic syndromes. *Israel Journal of Psychiatry and Related Sciences*, 47(2), 118-124.
- Plaute, W., Westling, D. L., & Cizek, B. (2002). Sexuality education for adults with cognitive disabilities in Austria: Surveys of attitudes and the development of a model program. *Research and Practice for Persons with Severe Disabilities*, 27(1), 58–68. <https://doi.org/10.2511/rpsd.27.1.58>
- Pownall, J. D., Jahoda, A., & Hastings, R. P. (2012). Sexuality and sex education of adolescents with intellectual disability: Mothers’ attitudes, experiences, and support needs. *Intellectual and Developmental Disabilities*, 50(2), 140-154. <https://doi.org/10.1352/1934-9556-50.2.140>

- Pugliese, C. E., Ratto, A. B., Granader, Y., Dudley, K. M., Bowen, A., Bakers, C. & Anthony, L. G. (2019). Feasibility and preliminary efficacy of a parent-mediated sexual education curriculum for youth with autism spectrum disorders. *Autism*, 42(1), 64-79. <https://doi-org/10.1177/1362361319842978>
- Rothenberg, G. S., Franzblau, S. H., & Geer, J. H. (1979). Educating the learning disabled adolescent about sexuality. *Journal of Learning Disabilities*, 12(9) 10-14. <https://doi-org/10.1177/002221947901200903>
- Stankova, T., & Trajkovski, V. (2021). Sexual education of persons with autistic spectrum disorders: Use of the technique: 'Social stories. *Sexuality and Disability*, 39, 377-393. <https://doi.org/10.1007/s11195-020-09655-y>
- Stein, S., Kohut, T., & Dillenburg, K. (2018). The importance of sexuality education for children with and without intellectual disabilities: What parents think. *Sexuality and Disability*, 36(2), 141-148. <https://doi.org/10.1007/s11195-017-9513-9>
- Strang, J. F., Knauss, M., van der Miesen, A., McGuire, J. K., Kenworthy, L., Caplan, R., Freeman, A., Sadikova, E., Zaks, Z., Pervez, N., Balleur, A., Rowlands, D. W., Sibarium, E., Willing, L., McCool, M. A., Ehrbar, R. D., Wyss, S. E., Wimms, H., Tobing, J., ... Anthony, L. G. (2021). A clinical program for transgender and gender-diverse neurodiverse/autistic adolescents developed through community-based participatory design. *Journal of Clinical Child and Adolescent Psychology*, 50(6), 730-745. <https://doi.org/10.1080/15374416.2020.1731817>
- Rushbrooke, E., Murray, C., & Townsend, S. (2014). The experience of intimate relationships by people with intellectual disabilities: A qualitative study. *Journal of Applied Research in Intellectual Disability*, 27, 531-541. <https://doi.org/10.1111/jar.12091>
- Tarnai, B., & Wolfe, P. S. (2008). Social stories for sexuality education for persons with autism/pervasive developmental disorder. *Sexuality and Disability*, 26, 29-36. <https://doi.org/10.1007/s11195-007-9067-3>
- Tissot, C. (2009). Establishing a sexual identity: Case studies of learners with autism and learning difficulties. *Autism: The International Journal of Research and Practice*, 13(6), 551-566. <https://doi.org/10.1177/1362361309338183>
- Walcott, D. D. (1997). Family life education for persons with developmental disabilities. *Sexuality and Disability*, 15, 91-98. <https://doi.org/10.1023/A:1024783901824>

About the Authors

Rebecca R. Kammes, PhD, LMFT, is a clinician and researcher at the UCLA PEERS® Clinic and is a licensed Marriage and Family Therapist (LMFT). Her research interests include sexuality education, family training, and trauma-informed care for individuals with disabilities.

Rhonda S. Black, EdD, is a Professor and Department Chair at the University of Hawaii at Manoa. Her teaching expertise and research interests include strategies for adolescents with disabilities, cultural considerations in transition, and improving social skills and healthy interpersonal relationships for adults with intellectual disabilities.

Emily C. Tucker, PhD, is an assistant professor of professional practice at Oklahoma State University, and the program director for Opportunity Orange Scholars. Her research interests focus on increasing access to healthcare and post-secondary education for adults with intellectual disability.

Teacher Evaluation and the Professional Development Connection: Perspectives of Special Education Teachers

**Zaher M. Kmail, Ph.D.
Gordon Brobbey, Ph.D.**

University of Washington Tacoma

Abstract

Teacher evaluation has been closely tied to professional development. In special education, professional development experiences are meant to promote special educator learning and implementation of high leverage practices. Yet, the connection between teacher evaluation outcomes and professional development decisions of special educators is largely unexplored. As part of a larger study that examined perceptions regarding the use of existing evaluation systems to assess their practice, this study explored how special educators perceive received feedback and its connection to their professional development needs and choices. The findings reveal a weak correlation between the feedback received in the evaluation process and its influence on professional development decisions and considerations for special educators. They further suggest a lack of encouragement on special educators' reflective practices or changes made to their teaching. A positive correlation was identified between perceptions about clarity and feedback received, and professional development decisions. Implications for future research are presented.

Keywords: special educators, teacher perceptions, teacher evaluation, professional development, accountability

***Teacher Evaluation and the Professional Development Connection:
Perspectives of Special Education Teachers***

Teacher evaluation has been closely tied to professional development. As one of the main purposes of evaluating teachers, professional development has been touted as the means to support the growth of effective teachers and ameliorate perceived shortfalls of ineffective ones (Brownell & Jones, 2015). In general, professional development for teachers serves several purposes including providing knowledge about a new policy, law, or practice; addressing beliefs about educational issues; and providing teachers with new skills or strategies (McLeskey, 2011). In special education, professional development experiences are meant to promote teacher learning and implementation of high leverage practices. Frey (2009) found that targeted professional development has a positive effect on special education teachers' instructional practices, particularly for new teachers, and the performance of students with disabilities. Although professional development is perceived as vital in the evaluation process, there is some research to suggest that the relationship between the two may be tenuous at best. Smylie and colleagues (2004) referred to it as the "weak link problem" (p.100) to explain what researchers perceive as the weak connection between evaluation and professional development. In addition, researchers have raised issues regarding the quality of professional development provided as well

as the methods of delivering it (McLeskey, 2011; Smylie, 2004). McLeskey (2011) noted that professional development in special education tends to be ineffective because of its failure to account for the complex nature of special education classrooms.

For almost two decades now, teacher evaluation policies and accompanying practices have been conceived and promoted as the panacea for the perceived shortfalls in teacher quality and effectiveness. This is underscored by the recognition that teacher effectiveness is perhaps the most impactful factor in student achievement (Cherasaro et al., 2016; Council for Exceptional Children [CEC], 2012; Jones & Brownell, 2014; National Council for Accreditation of Teacher Education, 2010). Most state and local education agencies have adopted high-stakes teacher evaluation systems that have had ramifications for tenure, promotion, and remuneration (Darling-Hammond, 2013). According to Smylie (2014), the prolific adoption of teacher evaluation reforms by state and local education agencies was propelled by three forces: (1) teacher evaluation practice had been in an effective state for a prolonged period, (2) a strong federal push for teacher evaluation reforms, accompanied by financial incentives, and (3) the logic that new evaluation systems will improve educational performance. The logic that teacher evaluation efforts will improve education performance is premised on the notion that teachers are evaluated against a predetermined, scientifically validated set of behaviors that are able to distinguish effective teachers from ineffective ones. Teachers found to be effective are rewarded and ineffective ones are terminated or given opportunities to learn and improve their craft (Smylie et al., 2004) through professional development. Delvaux, Vanhoof, Tuytens, Vekeman, Devos, and Van Petegem (2013) were of the view that teacher evaluation serves two purposes: summative and formative. Summative evaluation has high-stakes and accountability intent: to identify and sort teachers into effective and ineffective ones. On the contrary, formative evaluation is used for the purposes of teacher growth and ongoing improvement (Derrington & Kirk, 2017), mainly through professional development.

Special education teachers contend with being evaluated with systems that are neither designed nor validated for them (Brownell & Jones, 2015; Johnson & Semmelroth, 2014; Holdheide et al., 2010; Holdheide, 2015; Sledge & Pazey, 2013). In a brief stating its position on special education teacher evaluation, the Council for Exceptional Children (CEC; 2012) noted the failure of existing evaluation systems to distinguish between effective and ineffective teachers or provide professional development related to the practice of special education teachers. The CEC referred to professional development as one of the “fundamental systemwide components” (p. 74) of teacher evaluation systems and called for evaluation practices that support ongoing and systemic professional development opportunities based on feedback received from the annual cycle.

Literature Review

Evaluation Feedback and Professional Development

The provision of feedback to guide teachers’ practice, instructional decisions, and professional development is the hallmark of well-designed and implemented evaluation systems (Cherasaro et al., 2016). Most evaluation frameworks require teachers to develop some form of professional development growth plans (PDPs) that often form part of the summative performance score they receive in the annual evaluation cycle. For example, commercially available tools, like the

Marzano Framework for Teaching, include a deliberate practice piece that requires teachers to use evaluation feedback, schoolwide improvement plans, and student growth data to identify and participate in professional development that improves student achievement (Carbaugh, Marzano, & Toth, 2017). In a study that examined the challenges in evaluation of special education and English Language Learner (ELL) teachers, Holdheide and colleagues (2010) found that 62% of state level directors surveyed incorporated professional development growth plans in evaluation processes to determine teacher effectiveness. They acknowledged that evaluation systems capable of detecting professional development needs of special education teachers would ultimately contribute to targeted and results-driven professional development and improve achievement of students.

In general education, some studies have examined the feedback and professional development connection. In a study involving 3163 teachers, Delvaux and colleagues (2013) found that teacher experience, purpose of evaluation, and features of the evaluation system are positively related to the impact of teacher evaluation on professional development. In the study, new teachers (five years or less) reported greater effect of evaluation outcomes on their professional development than experienced teachers. In terms of purpose, the study found that summative or high-stakes evaluation systems had a marginal but significant effect on perceived professional development than systems with formative intentions. Regarding features of the evaluation system, Delvaux and colleagues reported that four features impact the perceived connection of evaluation systems and professional development: (1) clarity of the evaluation system, (2) relationship between teachers and evaluators, (3) credibility of the evaluator, and (4) administrators' instructional leadership. Teachers who perceived a greater effect of evaluation feedback on their professional development if the criteria and purposes of the evaluation system were clear to them. Higher evaluator credibility, more instructional leadership, and positive evaluator attitude towards the evaluation system were all found to have positive influence on teachers' reported effect on professional development. Jiang, Spote, and Luppescu (2015) reported similar findings in their study of teachers' perceptions of Chicago Public Schools' Recognizing Educators Advancing Chicago Students (REACH) evaluation system. Although special educators constituted a subset of the participants in the study, the researchers reported specific findings that shed some light on evaluation feedback and special educator professional development decisions. Jiang and colleagues reported a strong relationship between clarity of the evaluation system and professional development experiences. Clarity is defined as the extent to which special education teachers understand the components, intent, purposes, and outcomes of the evaluation framework (Brobey & Kmail, 2022; Jiang et al., 2015). Special education teachers reported having lower clarity than their general education counterparts. Special education teachers were also found to be less positive about the impact of evaluation feedback on their professional development practices.

In special education, there is a dearth of empirical studies that have examined the effect of evaluation feedback on special educators' professional development decisions. A few studies (e.g., Glowacki & Hackman, 2016; Lawson & Knollman, 2017) explored administrator/evaluator competence relative to evaluating and providing relevant feedback to special educators. Administrators or evaluators who lacked specific knowledge of evidence-based special education practices or backgrounds faced challenges in evaluating and providing specific feedback that applied to special education classrooms, particularly in self-contained settings (Lawson &

Knollman, 2017). Researchers have called for credible and trained evaluators (CEC, 2012; Glowacki & Hackman, 2016; Holheide et al., 2010) with the requisite expertise to evaluate the roles and responsibilities of special educators (CEC, 2012). The issue of clarity and purpose of the evaluation system is yet to receive attention in the special education teacher evaluation discourse. Special educators have been found to report significantly lower clarity than non-special educators (Jiang et al., 2015). With respect to professional development, Jiang and colleagues (2015) reported that special educators were less positive regarding the extent to which the evaluation process impacted their professional development choices. The ample commentary about challenges with evaluating special educators with existing evaluation tools (*e.g.*, Jones & Brownell, 2014; Holdheide et al., 2010; Jones, 2016; Sledge & Pazey, 2013) perhaps explains the reactions of special educators.

Challenges with Using Existing Systems for Special Education Teachers

Ideally, evaluation systems designed and validated for special education teachers should provide evidence-based feedback to guide their practice and professional development choices (Cherasaro et al., 2016). Researchers have, however, enumerated a few difficulties associated with evaluating special education teachers with systems adopted by states and districts. For one thing, states and districts tend to evaluate special education teachers with systems and tools validated for general education teachers (Sledge & Pazey, 2013). The responsibilities, contexts, and instructional approaches in special education differ from general education but are not factored into designing and implementing systems that reflect and account for the differences (Jones, 2016).

Another issue is the philosophical and methodological differences underpinning the design of existing evaluation frameworks and the nature of teaching in special education (*e.g.*, Brownell & Jones, 2015; Johnson & Semmelroth, 2014; Jones, 2016). One prominently used teacher evaluation framework in the U.S. is Danielson's Framework for Teaching (FFT) (Kettler & Reddy, 2019). For example, Brownell and Jones (2015) found differences in theoretical orientations of the FFT rubric and special education teaching and learning. The constructivist orientation of the FFT runs counter to the behaviorist perspective, a prominent perspective that characterizes teaching and learning in special education. After analyzing the domains of the FFT and comparing it with the features that define effective special education teaching, Brownell and Jones (2015) found that the FFT failed to account for explicit teaching, a key feature of effective special education practice. This raises questions regarding the nature and validity of feedback provided to special educators and how relevant the feedback would be in their professional development considerations.

Special educators also have additional distinct roles that are critical to the academic, emotional, and social outcomes for students with disabilities. These roles range from mandated responsibilities like writing individualized education plans, progress monitoring, and conducting specialized assessments among others to everyday classroom responsibilities like planning, teaching, and classroom management. Yet, existing evaluation systems do not account for the additional roles and responsibilities or provide feedback that special education teachers can use to improve these core and critical areas of their practice (Sledge & Pazey, 2013). Granted, some states and local education agencies have modified their evaluation practices and tools to recognize special education teacher roles (Holdheide, 2015), it is far from widespread practice

for states and districts to make intentional modifications and alignments with evidence-based practices and standards in special education. In spite of the known challenges associated with evaluating special educators with current evaluation systems, there is a scarcity of studies that have examined how special educators view the feedback they receive or the extent to which the feedback impacts their professional development.

Purpose of the Study

The purpose of this study was to explore special educator perception relating to the connection between evaluation feedback and professional development considerations. Specifically, we explored special education teachers' perceptions regarding the feedback received from evaluations and the extent to which it influenced their professional development needs and aspirations. As part of a larger study that examined special educators' perceptions regarding using the existing evaluation systems to assess their practice, this study examines how special educators perceive the feedback received and its connection to their professional development needs and choices. The study addressed the following research questions: (1) What are the perceptions of special educators relative to the influence of the annual teacher evaluation on their reflection and professional development decisions? (2) Is there a correlation between perceptions about clarity of evaluation framework, credibility of evaluator, and feedback received in the annual evaluation cycle and special educators' professional development decisions? (3) Do special educator perceptions regarding evaluation feedback and professional development decisions vary by: (a) Job categories? (b) Gender? (c) Years of experience?

Theoretical Framework

Teacher evaluation is perhaps one of the most notable policy initiatives in education for the last two decades. We were guided by three theoretical considerations: Doyle and Ponder's practicality ethic (1977), Fullan's (2001) critical factors of policy implementation, and Cherasaro and colleagues' (2016) theoretical model for performance feedback (Fig. 1). Fullan (2001) identified clarity and practicality as critical factors that influence the extent to which teachers alter their beliefs and practices in response to new policies. *Clarity* refers to the extent to which teachers perceive the intentions as clear and understandable while *practicality* refers to how practical teachers perceive the policy in terms of quality and availability of resources. Like Jiang, Spote, and Luppescu (2015), we further defined practicality using Doyle and Ponder's (1977) practicality ethic theory. According to Doyle and Ponder (1977), teachers' reaction to policy initiatives intended to change their classroom practice, like teacher evaluation, is influenced by how practical they view the policy initiative. Doyle and Ponder posited that teachers would be resistant to adopting policies that they perceive as impractical. Teachers' perception of practicality is based on three criteria: (1) the extent to which the policy aligns with teachers' classroom conditions (congruence), (2) the extent to which the policy describes procedures that reflect classroom practices (instrumentality), and (3) the potential benefits or harm teachers can expect in implementing the policy (cost).

Cherasaro and colleagues (2016) posited that teachers' response to performance feedback is influenced by four interconnected features: (1) usefulness of feedback, (2) accuracy of feedback, (3) evaluator credibility, and (4) access to resources. *Usefulness* refers to the extent to which

teachers perceive the feedback provides specific recommendations in a timely manner while *accuracy* means the extent to which the feedback accurately depicts teachers' performance. *Evaluator credibility* deals with the extent to which the evaluator possesses knowledge and understanding needed to offer useful feedback. The final feature, *access to resources*, refers to whether teachers can access resources such as mentors, experienced teachers, and other professionals to facilitate how they respond to the feedback received.

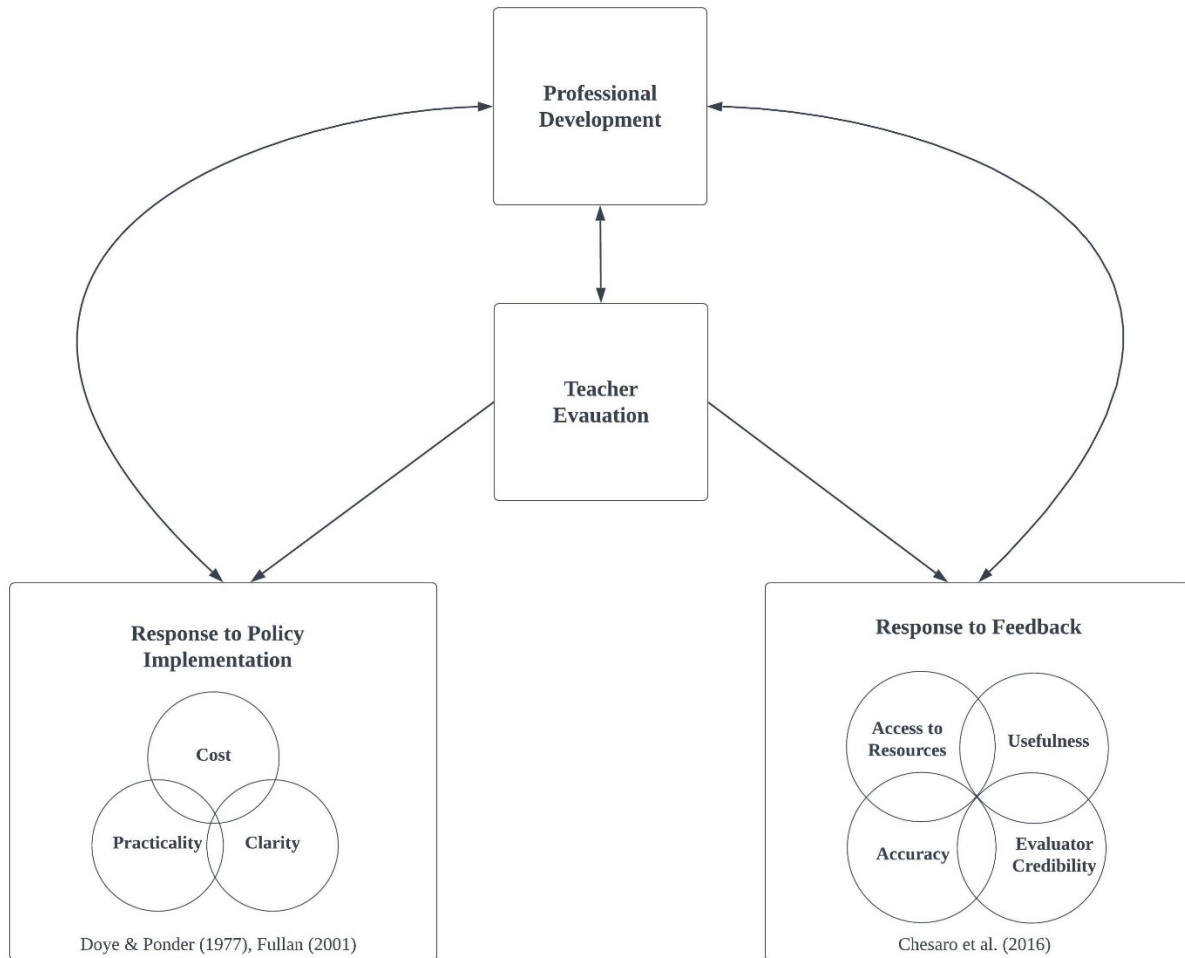


Figure 1: Theoretical Framework for the connection between teacher evaluation and professional development.

In this study, we conceptualized that special educators would perceive a greater influence of the evaluation system on their professional development needs and choices if they perceived the evaluation framework as clear; practical to their roles, responsibilities, and context; and providing relevant feedback.

Method

Participants

Quantitative methods were used to answer the research questions. Specifically, we used survey methodology, an approach that allows researchers to study a sample of the population (Creswell, 2015). All 357 secondary-level (middle and high school), full-time, and certified special educators whose primary assignment was to teach students with disabilities in a large school district in the southeastern region of the United States were invited to participate in the study. Participants taught in general education, self-contained, and special school settings. General education teachers or other professionals who work with students with disabilities such as therapists, school psychologists, social workers, and paraprofessionals did not participate in the study (See Frey, 2009, p. 84).

The school district from which participants were selected used the Marzano Focused Teacher Evaluation Model (Carbaugh et al., 2017) to evaluate its teachers. The evaluation system had three components: instructional practice, deliberate practice, and a student performance piece. The instructional practice component was assessed through the annual classroom observations conducted by administrators using the Marzano teacher evaluation rubric. All teachers were observed at least one time in the school year, but new teachers were observed at least twice. The deliberate practice component required teachers to develop deliberate practice plans based on their own self-assessment and reflection on the previous year's evaluation feedback, their school's improvement plan, and student achievement data. The student performance component was generated from students' performance on standardized assessments mandated by the state. All three components were finally weighted to generate a summative performance score to rate a teacher's performance for the year.

Instrument

We adopted and modified an instrument from Jiang, Spote, and Luppescu (2015). The instrument had 3 broad clusters of questions based on our conceptual framework. The clusters were *clarity*, *practicality*, and *cost*. The *clarity* cluster had three items that asked participants to rate their understanding of the evaluation systems including the major components of classroom observations, professional development plans, and student performance measures. The *cost* cluster also had three items and asked participants to rate their perception of the benefits or harm associated with the process. The *practicality* cluster, which was the biggest one, had 10 items that were further broken down into categories of evaluator credibility, feedback received, responsibilities and roles, and professional development.

Internal Reliability

We took steps to ensure the reliability of the instrument after it was modified. As a first step, we sought feedback from experts who reviewed it and provided feedback. Next, we piloted the instrument using a sample similar to the participants in this study. Following the receipt of expert feedback and the pilot, we revised and finalized the instrument. Final Cronbach's alpha scores ranged from 0.70 to 0.89, similar to reliability scores of 0.68 to 0.87 on the original instrument (Jiang et al., 2015).

Procedures

Dissemination of the Survey. Qualtrics was the platform utilized to disseminate the anonymous study online. Following district approval, personal email invitations to participate in the study were sent to potential participants who met the inclusionary criteria based on a district-provided list of email addresses (Ary et al., 2010). To ensure that ethical procedures were followed, informed consent from participants was obtained electronically. The invitation briefly introduced the study, its purpose, and why participants were being invited to participate. A brief explanation of any anticipated benefits or harm and information about privacy protection, confidentiality, and integrity of data were given. Qualifying criteria were also provided to help participants make informed decisions to participate or decline. Those who were willing to participate were directed to click an embedded link that directed them to the host website to complete the survey. Clicking on the link indicated survey consent and participants could terminate the survey before completion at any time. Reminder emails were sent to participants three times within the four-week period of data collection.

Data Collection. Data for the study were collected online through Qualtrics over a period of four weeks, from April 1, 2019, to April 26, 2019. Data collection was completely anonymous as we did not collect any personally identifying information that could be used to track participants who submitted specific responses (Woolf, 2015). At the end of the data collection period, 122 participants responded to the survey. After initial review of the data, however, 96 responses, accounting for nearly 27% response rate were included in the final data analysis. In terms of demographics, participants whose responses were included in the data analysis consisted of approximately 42% special educators who worked with students in the general education setting, 47% in self-contained, and 11 in special schools. Regarding gender, nearly 23% of respondents identified as male and 75% as female. Two participants opted not to disclose their gender.

Data Analysis. At the end of the data collection period, we exported the data from Qualtrics onto a Microsoft Excel spreadsheet, then cleaned and coded all data for analysis. Next, the coded data were analyzed using the SAS OnDemand for Academics statistical software for both descriptive and inferential statistics using the Proc Mixed and Proc Corr procedures (SAS, 2021; SAS, 2017). Using our conceptual framework, we grouped the responses into the clusters of *clarity*, *practicality*, and *cost* perceptions. The *practicality* items were further grouped into four measures of *evaluator credibility*, *feedback received*, *responsibilities and roles*, and *professional development*. We accounted for missing data by using an average of responses per cluster of questions, which allowed us to count respondents who skipped some questions but responded to the other items. As an example, participants who skipped one out of a cluster of three items were counted and included in the analysis. We calculated descriptive statistics such as frequency distributions and measures of central tendency (mean, mode, and median) to give us an overview of the data and a comprehension of the trends. We also conducted inferential analysis including analysis of variance (ANOVA) to understand the variability of perceptions across the categories of gender, job settings, and years of experience. Proc Mixed was used to perform the ANOVA and the multiple comparison t-test. Additionally, we calculated the interaction effects to give us a deeper sense of the variability of perceptions across the demographics of gender, job categories, and years of experience. Also, Pearson correlation coefficients were used to understand the interrelationship between *clarity*, *practicality*, and *cost*, and professional development decisions by using the Proc Corr procedure with the option Alpha to obtain the Person correlation coefficients and the Cronbach's alpha.

Results

Perceptions Regarding Influence of Annual Evaluation on Professional Development Decisions

To find the extent to which special educators' perceptions regarding the annual evaluation cycle influenced their professional development decisions, we asked participants to indicate their level of agreement. Specifically, we asked participants about the extent to which the evaluation results: (1) encouraged them to reflect on their practice, (2) guided future professional development choices, (3) influenced their future professional development activities, and (4) caused them to make changes in their teaching and practice. The results showed that evaluation results did not have a strong influence on their professional development decisions. Participants neither agreed nor disagreed on these questions ($x = 3.02$, $SD = 0.98$; Table 1). The results suggest that the evaluation results only encouraged special educators to marginally reflect on their teaching practice ($x = 3.45$, $SD = 1.02$; Table 1), but it did not guide or influence professional development changes.

Table 1

Descriptive findings of professional development and cost

Descriptive Statistics									
Variable	Measure	N	Mean	Standard Deviation (SD)	Overall Mean	Overall (SD)	Min.	Max.	Cronbach's Alpha
<i>Professional Development</i>	<i>Reflect on my teaching</i>	95	3.45	1.02	3.20	0.87	1	5	0.89
	<i>Guide future choices</i>	95	3.06	1.01			1	5	
	<i>Strongly influences future choices</i>	95	3.02	0.98			1	5	
	<i>Made Changes</i>	94	3.24	1.05			1	5	
<i>Cost</i>	<i>Increased anxiety</i>	95	3.96	1.15	3.66	0.64	1	5	0.70
	<i>Effort outweighs positive results</i>	95	4.081	1.14			1	5	
	<i>Influence of evaluation on effectiveness</i>	94	2.93	0.91			1	5	

The interaction between gender and classroom setting in terms of special educators reflecting on their practice following the evaluation feedback was significant. The highest approval rating was for female special educators in self-contained settings at 3.59, followed by male special educators in self-contained classrooms at 3.54, females in general education settings at 3.45, and male special educators in general education settings with the lowest level of satisfaction at 2.45. On average, we found that the approval rating of female special educators in self-contained and general education classrooms exceeded that of their male counterparts in general education settings by 1.14** (** indicates $p\text{-value} \leq 0.05$ and * indicates $p\text{-value} \leq 0.10$), and 1.00* respectively. Also, the approval rating of male special educators in self-contained classrooms exceeded that of their male counterparts in general education settings by 1.09**. These findings suggest that male special educators in general education settings were adamant about using the evaluation feedback to reflect on their teaching practice.

The ANOVA findings also revealed that regardless of gender, classroom setting, or years of experience as special educators, participants could not agree that the evaluation ratings or feedback they received guided their future professional development decision and choices. The 95% confidence interval for the average approval score ranged between 2.86 and 3.27, equivalent to “neither agree nor disagree” on the response scale. We found similar outcomes when participants were asked whether the annual observation impacted their future professional development considerations or motivated them to effect changes in their teaching and practice as noted in Table 2.

Table 2
ANOVA for response cluster of professional development.

Effect	<i>Reflect on my teaching</i>	<i>Guide future choices</i>	<i>Strongly influence future choices</i>	<i>Made changes</i>
P-value	Pr > F	Pr > F	Pr > F	Pr > F
Gender	0.0999	0.5729	0.822	0.5016
Experience	0.4253	0.9656	0.9693	0.1714
Job Description	0.036	0.4104	0.2164	0.3610
Gender * Experience	0.6027	0.8649	0.5916	0.2994
Gender * Job Description	0.0994	0.765	0.6289	0.5482
Experience * Job Description	0.2099	0.6191	0.4237	0.1357
Gender * Experience * Job Description	NS+	NS+	NS+	NS+

+Was not significant and the model was reduced by excluding the indicated (NS) interaction.

Correlation Between Clarity Perceptions and Professional Development Decisions

Special educators' perceived clarity or understanding of the evaluation framework, including the student growth component and how summative scores were calculated positively correlated with perceptions about professional development. We found a positive correlation between level of clarity with student growth metrics and how it is calculated, and participants' future professional development choices and activities (0.20* and 0.26**, respectively; Table 3). Although the correlation among the variables of clarity and professional development choices and decisions were significant, the magnitude of the correlation coefficient falls between 0.18* and 0.24**, indicating weak correlation.

Correlation Between Evaluator Credibility Perceptions and Professional Development Decisions

We also analyzed the extent to which perceived evaluator credibility measured perceptions of evaluator's ability to conduct accurate assessment of special educator instructions, roles, responsibilities, and practice; understand strengths and weaknesses; remain fair and unbiased; and understand the special education classroom dynamics. On these measures, the results showed that the evaluator's ability to conduct an accurate assessment of instruction, roles, and practice, or ability to understand special educator strengths and weaknesses had weak positive correlations

(0.27**–0.36**; 0.22**–0.31**; Table 3) with all professional development variables. We also found a weak positive correlation between the perceptions of fairness (0.22**–0.36**; Table 3), the evaluator’s level of understanding (0.32**–0.34**; Table 3), and all professional development measures.

Feedback Perceptions and Professional Development Decisions

The four variables under the feedback measure included perceptions pertaining to appropriateness of evaluation rubric to special educator roles, responsibilities, and practice; usefulness of feedback received; specificity of feedback to roles, responsibilities, and practice; use of feedback for improvement; and whether feedback included guidance on how to make improvement. We found a positive correlation between participants' professional development decisions and three feedback variables: appropriateness of rubric to job roles, responsibilities, and practice (0.29**–0.40**); usefulness of feedback (0.43**–0.46**); and specificity of feedback to job roles and practice (0.41**–0.49**). Relative to the connection between perceptions on whether the feedback included specific guidance on how to improve and how participants made professional development decisions and choices, we found a moderate positive correlation (0.32**–0.48**).

Overall, the correlation between feedback received during the evaluation process and participants’ professional development decisions and choices appear to be moderate, except when the feedback shared included specificity in how to improve areas of perceived weaknesses.

Cost Perceptions and Professional Development Decisions

Special educators’ perceptions of the “cost” or impact of the evaluation process on their stress levels is positively correlated with their professional development decisions. The extent to which special educators perceived the evaluation process as impacting their overall effectiveness has a positive moderate correlation with the likelihood that they would reflect on their own teaching practice or use the feedback to guide future professional development choices (0.58** and 0.60** respectively; Table 3). In addition, we found a moderate positive correlation (0.56**; Table 3) between perceived impact on effectiveness and the extent to which special educators reported that observation results will strongly influence their future professional development activities.

On the other hand, we found that even special educators' views regarding the effect of the evaluation on their overall effectiveness did not move them to make changes in their teaching or practice, showing a weak positive correlation (0.46**; Table 3). We also found a weak negative correlation (–0.24*–0.40**; Table 3) between perceptions pertaining to the worth and anxiety levels associated with the evaluation process and all professional development variables.

Table 3: *Pearson Correlation Coefficients for response clusters of clarity, practicality, professional development, and cost*

Effect	Clarity: Framework	Clarity: Student Growth Measure	Clarity: Summative Score Calculation	Evaluator: Accurate Assessment	Evaluator: Understands Evaluatee	Evaluator: Fairness	Evaluator: Understands Classroom	Feedback: Appropriate Rating Scales	Feedback: Useful Feedback	Feedback: Identified Improvement Areas	Feedback: Used Feedback for Improvement	Feedback: Improvement Guidance	Feedback: Recommend Different Rubric	Professional Development: Encourages Reflection	Professional Development: Guides Future	Professional Development: Influences	Professional Development: Observations Affected Change	Cost: Increased Anxiety	Cost: Effort Outweighs Positive Results	Cost: Influence of evaluation on Effectiveness
Clarity: Framework	1	0.65**	0.70**	-0.04	-0.02	0.09	0.03	0.24**	0.05	0.00	0.07	0.08	-0.18*	0.25**	0.13	0.06	0.23**	-0.18*	-0.13	0.07
Clarity: Student Growth Measure		1	0.83**	0.00	0.07	0.08	0.11	0.26**	0.13	0.10	0.18*	0.10	-0.15	0.23**	0.20*	0.18*	0.26**	0.12	-0.15	0.20**
Clarity: Summative Score Calculation			1	-0.04	-0.01	0.10	0.13	0.23**	0.11	0.11	0.24**	0.09	-0.16	0.24**	0.26**	0.24**	0.29**	0.00	0.13	0.15
Evaluator: Accurate Assessment				1	0.73**	0.54**	0.66**	0.32**	0.64**	0.52**	0.52**	0.48**	-0.16	0.31**	0.35**	0.36**	0.27**	0.00	-0.15	0.48**
Evaluator: Understands Evaluatee					1	0.59**	0.68**	0.28**	0.65**	0.47**	0.53**	0.43**	-0.21**	0.31**	0.22**	0.25**	0.25**	-0.25**	-0.17*	0.44**
Evaluator: Fairness						1	0.75**	0.25**	0.47**	0.36**	0.34**	0.28**	-0.12	0.36**	0.24**	0.28**	0.22**	-0.16	-0.24**	0.38**
Evaluator: Understands Classroom							1	0.37**	0.62**	0.56**	0.57**	0.52**	-0.15	0.32**	0.34**	0.33**	0.34**	-0.04	-0.18*	0.43**
Feedback: Appropriate Rating Scales								1	0.52**	0.46**	0.52**	0.51**	-0.38**	0.39**	0.35**	0.29**	0.40**	-0.07	-0.30**	0.42**
Feedback: Useful Feedback									1	0.71**	0.71**	0.63**	-0.28**	0.46**	0.43**	0.44**	0.43**	-0.09	-0.20*	0.57**
Feedback: Identified Improvement Areas										1	0.73**	0.62**	-0.15	0.49**	0.41**	0.46**	0.44**	0.05	-0.18*	0.44**
Feedback: Used Feedback for Improvement											1	0.60**	-0.26**	0.45**	0.50**	0.52**	0.57**	0.05	-0.20*	0.48**
Feedback: Improvement Guidance												1	-0.15	0.32**	0.48**	0.39**	0.44**	0.01	-0.19*	0.47**
Feedback: Recommend Different Rubric													1	-0.33**	-0.30**	-0.27**	-0.23**	0.04	0.26**	-0.39**
Professional Development: Encourages Reflection														1	0.66**	0.65**	0.59**	-0.18*	-0.40**	0.58**
Professional Development: Guides Future															1	0.87**	0.66**	0.03	-0.31**	0.60**
Professional Development: Influences Activities																1	0.64**	0.07	-0.24*	0.56**
Professional Development: Changes																	1	-0.04	-0.32**	0.46**
Cost: Increased Anxiety																		1	0.54**	-0.19*
Cost: Effort Outweighs Positive Results																			1	-0.41**
Cost: Influence of evaluation on Effectiveness																				1

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Discussion

Using the feedback and data generated from the annual evaluation cycle to help educators make informed professional development decisions and choices for the purpose of improving the practice and teaching is seen as one of the main purposes of teacher evaluation. We wanted to understand the extent to which this premise holds true for special educators. Results from the study suggest that special educators could not agree on the key thought that the feedback received in the evaluation process should influence their professional development decisions and considerations. We also found that the process did not encourage special educators to reflect on their practice or made changes to their teaching as a result. We found a positive correlation between perceptions about clarity and feedback received and professional development decisions.

Evaluation Process Marginally Encourages Reflection on Practice or Influence Professional Development Decisions

Given that professional development considerations serve as one of the core purposes of teacher evaluation (Brownell & Jones, 2015; Holdeheide, 2015; Johnson et al., 2021), we expected to see the process encouraging deeper reflection and change in practices, and ultimately informing special educators' professional development considerations and decisions. Like the district where participants were drawn from, school districts typically require teachers to develop some sort of professional development or deliberate practice plan based on a critical self-reflection and assessment on the previous year's evaluation feedback (Carbaugh et al., 2017). The results indicate, however, that the evaluation process only marginally encouraged special educators to reflect on their practice and did not guide future professional development decisions and choices. This finding is similar to that of Jiang and colleagues (2015) who reported that special educators were less positive about the impact of the evaluation process on their professional development decisions. Studies have pointed to the misalignment between existing evaluation instruments and evidence-based practices in special education (Johnson et al., 2021; Morris-Mathews et al., 2021), as well as skepticism about the responsiveness of instruments to special educator practices (Brobbe & Kmail, 2022; Brownell & Jones, 2015). If the evaluation cycle did not encourage special educators to reflect on their practice or make changes in their teaching practices, it is pertinent to understand how they are making data-driven and informed decisions for professional growth and student learning. Further research is warranted to understand this dynamic.

Clarity and Professional Development Considerations

Our analysis revealed a positive, but weak correlation between clarity of the evaluation framework and special educators' professional development decisions. Perceived clarity of the evaluation framework has been found to have greater impact on teachers' performance in the process (Benedict et al., 2013) and their professional development (Delvaux et al., 2013). Delvaux and colleagues (2013) reported that teachers with deeper clarity of the purposes and criteria of the evaluation system also perceived greater impact on their professional development considerations. We suggest that the weak correlation may be attributed to the fact that special educators in this study (See Brobbey & Kmail, 2022) and other studies (Jiang et al., 2015) reported not having deeper knowledge of evaluation frameworks and their components.

Evaluator Credibility

On the characteristic of evaluator credibility, we found that special educator perceptions are positively correlated with perceived impact on professional development considerations. The evaluator credibility variable with the strongest correlation with special educators perceived professional development was the evaluator's understanding of what happens in a special education classroom. Evaluator's perceived fairness was also positively correlated, but the magnitude of the correlation was weak. Delvaux and colleagues (2013) found that teachers' perceptions of evaluator's fairness had no statistically significant effect on their perceptions about the effect of the evaluation system on their professional development. Evaluator knowledge of the special educator roles, responsibilities, instructional practices, and classroom dynamics is crucial in the evaluation process. Studies have indicated that evaluators face challenges in evaluating special educators in view of the uniqueness of their roles and practices (Brobbe & Kmail, 2022; CEC, 2012; Holdheide et al., 2010; Lawson & Knollman, 2017).

Feedback Received and Professional Development Decisions

Our findings revealed a moderate correlation between variables on feedback received and professional development considerations. There is a significant positive correlation between the feedback and the professional development choices, however. The correlation coefficient between these two categories was as strong as we expected. The correlation between the feedback and the professional development is weak, which we find problematic. One of the fundamental purposes of the evaluation process is to identify educators' strengths and weaknesses, then use the evaluation feedback to guide future professional development offerings and decisions with the goal of improving areas of weakness and reinforcing areas of strength. A plausible explanation for the weak correlation is that participants did not receive actionable feedback upon which to base their professional development decision and choices. Our finding gives further credence to researchers' call to design evaluation rubrics and systems that can provide specific, actionable feedback on evidence-based instructional practices, with which special educators can make informed professional development decisions to improve their practices, and ultimately, student achievement (Hill & Grossman, 2013; Johnson et al., 2021).

Perceived Cost Influences Professional Development Considerations

Our study revealed that special educators' perceptions about the overall impact of the evaluation process on their effectiveness (cost) correlated with their likelihood of reflecting on the feedback received and using it to inform their professional development decision and choices. On the other hand, we noted a negative correlation between all professional development variables and participants' perceptions about the effort put invested and its worth. In other words, if special educators perceived that the resources and time invested were worth the effort, it moved them to reflect on their practices and influenced their professional development considerations. This finding suggests that for the educators to translate the outcome of the evaluation process into actionable professional development decisions, consideration should be given to the impact or cost of their process on their stress and anxiety levels (Jiang et al., 2015).

Limitations

The findings of the study should be interpreted within the limitations of the methods and approaches used. In quantitative studies, the sample size and samples which are obtained from

only one school district may impact the representativeness and generalizability of findings. For that reason, the findings may not be generalizable to other populations of SEs, particularly in districts that do not evaluate their teachers with the Marzano Focused Teacher Evaluation Model.

Implications for Future Research

The findings of this study are important to the special education teacher practice and preparation because they point to the fact that general teacher evaluation frameworks are less responsive in generating actionable feedback to the professional development needs of special educators. More research is needed to understand how special educators are making professional development choices and decisions with feedback received from evaluation systems that are not designed for them. Further studies involving more evaluation rubrics across multiple districts and a larger sample size are also needed to understand if the findings from our study hold true with different evaluation systems. Research is needed to contrast the different evaluation models across the districts and compare the results with the results of this research.

References

- Ary, D., Jacobs, L.C., Sorensen, C., Razavieh, A. (2010). *Introduction to Research in Education* (8th ed.). Belmont, CA: Cengage Learning.
- Benedict, A. E., Thomas, R. A., Kimerling, J., & Leko, C. (2013). Trends in teacher evaluation. *Teaching Exceptional Children*, 45(5), 60–68.
<https://doi.org/10.1177/004005991304500507>
- Brobbe, G., & Kmail, Z. (2022). Improving teacher evaluation outcomes for special educators: what do the ‘gatekeepers’ say? *Journal of Research in Special Educational Needs*, 22(1), 54–65. <https://doi.org/10.1111/1471-3802.12532>
- Brownell, M. T., & Jones, N. D. (2015). Teacher evaluation in special education: approaches, supporting research, and challenges confronted. *Journal of Special Education Leadership*, 28(2), 63–73.
- Carbaugh, C., Marzano, R., & Toth, M. (n.d.). *The Marzano focused teacher evaluation model: A focused, scientific-behavioral evaluation model for standards-based classrooms*. Learning Sciences Marzano Center. www.learningsciences.com
- Cherasaro, T. L., Brodersen, R. M., Reale, M. L., & Yanoski, D. C. (2016). Teachers’ responses to feedback from evaluators: what feedback characteristics matter? (REL 2017–190). *U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Central*. <http://ies.ed.gov/ncee/edlabs>
- Creswell, J. W. (2015). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (5th ed.). Boston, MA: Pearson.
- Darling-Hammond, L. (2013). *Getting Teacher Evaluation Right: What Really Matters for Effectiveness and Improvement*. New York, NY: Teachers College Press.
- Delvaux, E., Vanhoof, J., Tuytens, M., Vekeman, E., Devos, G., & Van Petegem, P. (2013). How may teacher evaluation have an impact on professional development? A multilevel analysis. *Teaching and Teacher Education*, 36, 1–11.
<https://doi.org/10.1016/j.tate.2013.06.011>

- Derrington, M. L., & Kirk, J. (2016). Linking job-embedded professional development and mandated teacher evaluation: teacher as learner. *Professional Development in Education*, 43, 1–15. <https://doi.org/10.1080/19415257.2016.1231707>
- Doyle, W., & Ponder, G. A. (1977). The practicality ethic in teacher decision-making. *Interchange*, 8(3), 1–12. <https://doi.org/10.1007/BF01189290>
- Frey, T. J. (2009). An analysis of online professional development and outcomes for students with disabilities. *Teacher Education and Special Education*, 32(1), 83–96. <https://doi.org/10.1177/0888406408330867>
- Fullan, M. (2001). *The New Meaning of Educational Change* (3rd ed.). Teachers College Press.
- Glowacki, H., & Hackmann, D. G. (2016). The effectiveness of special education teacher evaluation processes: perspectives from elementary principals. *Planning & Changing*, 47(3/4), 191–209.
- Hill, H., & Grossman, P. (2013). Learning from teacher observations: challenges and opportunities posed by new teacher evaluation systems. *Harvard Educational Review*, 83(2), 371–384. <https://doi.org/10.17763/haer.83.2.d11511403715u376>
- Holdheide, L. (2015). Same debate, new opportunity: designing teacher evaluation systems that promote and support educators in practices that advance all students' learning. *Journal of Special Education Leadership*, 28(2), 74–81.
- Holdheide, L. R., Goe, L., Croft, A., & Reschly, A. J. (2010). *Challenges in Evaluating Special Education Teachers and English Language Learner Specialists* (pp. 1–40). National Comprehensive Center for Teacher Quality. <https://files.eric.ed.gov/fulltext/ED520726.pdf>
- Jiang, J. Y., Spote, S. E., & Luppescu, S. (2015). Teacher perspectives on evaluation reform: Chicago's REACH students. *Educational Researcher*, 44(2), 105–116.
- Johnson, E. & Semmelroth, C. L. (2014). Special education teacher evaluation: why it matters, what makes it challenging, and how to address these challenges. *Assessment for Effective Intervention*, 39(2), 71–82. <https://doi.org/10.1177/1534508413513315>
- Johnson, E. S., Zheng, Y., Crawford, A. R., & Moylan, L. A. (2021). The relationship of special education teacher performance on observation instruments with student outcomes. *Journal of Learning Disabilities*, 54(1), 54–65. <https://doi.org/10.1177/0022219420908906>
- Jones, N. D. (2016). Special education teacher evaluation: an examination of critical issues and recommendations for practice. In J. A. Grissom & P. Youngs (Eds.), *Improving teacher evaluation systems: making the most of multiple measures*. New York, NY: Teachers College Press.
- Jones, N. D., & Brownell, M. T. (2014). Examining the use of classroom observations in the evaluation of special education teachers. *Assessment for Effective Intervention*, 39(2), 112–124. <https://doi.org/10.1177/1534508413514103>
- Kettler, R. J., & Reddy, L. A. (2019). Using observational assessment to inform professional development decisions: Alternative scoring for the Danielson Framework for Teaching. *Assessment for Effective Intervention*, 44(2), 69–80.
- Lawson, J. E., & Knollman, G. A. (2017). Evaluating special education teachers: school administrators' perceptions of the process. *Journal of Special Education Leadership*, 30(1), 6–18.
- McLeskey, J. (2011). Supporting improved practice for special education teachers. *Journal of Special Education Leadership*, 24(1), 26–35.

- Morris-Mathews, H., Stark, K. R., Jones, N. D., Brownell, M. T., & Bell, C. A. (2021). Danielson's framework for teaching: convergence and divergence with conceptions of effectiveness in special education. *Journal of Learning Disabilities*, 54(1), 66–78. <https://doi.org/10.1177/0022219420941804>
- National Council for Accreditation of Teacher Education (2010). *Transforming Teacher Education through Clinical Practice: A National Strategy to Prepare Effective Teachers*. Report of the Blue Ribbon Panel on Clinical Preparation and Partnerships for Improved Student Learning. Available online at <https://eric.ed.gov/?id=ED512807>
- SAS Institute Inc. (2017). *SAS/STAT® 14.3 User's Guide*. SAS Institute Inc.
- SAS OnDemand for Academics Statistical Software*. (2021). SAS Institute Inc. https://www.sas.com/en_us/software/on-demand-for-academics.html
- Sledge, A., & Pazey, B. L. (2013). Measuring teacher effectiveness through meaningful evaluation: can reform models apply to general education and special education teachers? *Teacher Education and Special Education*, 36(3), 165–257. <https://doi.org/10.1177/0888406413489839>
- Smylie, M. A. (2014). Teacher evaluation and the problem of professional development. *Mid-Western Educational Researcher*, 26(2).
- Smylie, M. A., Miretzky, D., & National Society for the Study of Education (Eds.). (2004). *Developing the Teacher Workforce*. NSSE: Distributed by the University of Chicago Press. <https://www.worldcat.org/title/55855163>
- The Council for Exceptional Children's Position on Special Education Teacher Evaluations*. (2012). Council for Exceptional Children. <https://exceptionalchildren.org/sites/default/files/2020-08/just%20TE%20position.pdf>
- Woolf, S. B. (2015). Special education professional standards: how important are they in the context of teacher performance evaluation?. *Teacher Education and Special Education*, 38(4), 276–90. <https://doi.org/10.1177/0888406414557284>

About the Authors

Zaher M. Kmail, Ph.D., is an Assistant Professor of Statistics at the University of Washington Tacoma. His general areas of research are in theoretical and applied statistics with a specialization in the design and analysis of experiments. His current research focuses on causal structure modeling, optimal design and its applications, and multivariate analysis, as well as mathematics and statistics education.

Gordon Brobbey, Ph.D., is an Assistant Professor of Special Education in the School of Education, University of Washington Tacoma. His research focuses on special education policy, teacher effectiveness, and special education teacher preparation.

Author Note: Zaher M. Kmail <https://orcid.org/0000-0002-3411-9275>. Gordon Brobbey <https://orcid.org/0000-0002-5784-5528>. We have no known conflict of interest to disclose. Correspondence concerning this journal manuscript should be addressed to Zaher M. Kmail, University of Washington Tacoma, School of Interdisciplinary Arts and Sciences, Division of Science and Mathematics, 1900 Commerce Street, Campus Box 358436, Tacoma, WA 98402, United States. Email: zkmail@uw.edu

Raising Expectations in Literacy for Students with Extensive Support Needs Using Multiliteracies

**Sudha V. Krishnan, Ed.D.
San Jose State University**

Abstract

Multiliteracies provide a unique opportunity to students with extensive support needs (ESN) because they extend literacy practices to include print-based texts along with the visual, audio, gestural, and spatial modes, thereby engaging students in literacy practices and higher-level skills regardless of their fluency in language or learning modality. However, many teachers of students with ESN are not familiar with multiliteracies or how to implement these in their classrooms. This paper provides a framework for implementing multiliteracies in the classroom using the four knowledge processes specified in the pedagogy: experiencing, conceptualizing, analyzing, and applying.

Keywords: multiliteracies, extensive support needs, literacy

Raising Expectations in Literacy for Students with Extensive Support Needs Using Multiliteracies

Bella teaches a high school self-contained class for students with extensive support needs. Many of her students are not yet fluent in reading and writing. Bella has high expectations for her students and wants to introduce them to high-interest and age-appropriate content. However, Bella observed that most of her students were not engaged and struggled to relate to the material. John, a student in her class, was distracted during her lesson. He bounced on his chair, put his head down on the desk, and glanced only briefly at her presentation. As Bella did not want to make him anxious, she asked John simple factual questions on the text, testing his comprehension and recall, getting a limited response with much prompting. Additionally, John's behaviors and engagement seemed to confirm Bella's belief that he could not cope with the level of instruction. She continued to ask the same level of questions with the same prompting over several weeks, hoping that he would improve. However, it was clear that she had to find a way to engage John better and provide him opportunities to develop higher literacy skills.

Students with extensive support needs (ESN) are students with significant cognitive impairment and are expected to require extensive lifelong support to participate in school, home, and community settings. Research suggests that literacy education for students with ESN is limited to low-level literacy skills like picture identification or learning basic sight words and functional skills despite recommendations by scholars who have shown successful literacy outcomes while accessing appropriately modified grade-level literacy texts (Browder et al., 2009; Katims, 2000; Ruppert, 2015; Ruppert, 2017). Teachers in self-contained classes (those classes where only special education students attend) often use poorly constructed material and have limited literacy activities partly due to their low expectations of the abilities of students with ESN (Ruppert, 2017). The failure of schools to engage these students in challenging literacy practices affects these students' social, emotional, vocational, and leisure outcomes (Forts & Luckasson, 2011).

Scholars have suggested that using expansive literacy practices, where language, reading, and writing are only a part of the many forms of meaning-making, can provide more positive literacy outcomes for students with ESN and improve teachers' perceptions of their students' abilities (Kliwer & Biklen, 2001). For instance, teachers can include visuals (still and moving), music, smell, taste, hand movements, and dance as part of literacy meaning-making in conjunction with print-based texts. (See Table 1 for additional examples of the numerous modes that can be part of the meaning-making efforts of students who may not be fluent in traditional literacy.)

Hudson et al. (2013) demonstrated the effectiveness of using systematic instruction with multiple modalities in teaching grade-level text reading, in which students were provided with an adapted text using visuals, images and tactile objects for responding, and graphic organizers to aid in comprehension. Scholars have also shown that socio-cultural pedagogies like multiliteracies which use multimodal teaching can improve literacy outcomes in students with disabilities and change teacher perceptions about student abilities (Cummins & Early, 2010; Krishnan, 2021; Leander & Lovvorn, 2006). Kilinic et al. (2016) showed that early elementary students with disabilities had better speech, engagement, and accessed higher thinking skills when they participated in a dramatic rendering of their literacy text. Similarly, Collins (2011) described the transformation of an 8-year-old boy, unenthusiastic about reading until he engaged in a student-authored classroom play by creating art and designing costumes. Unfortunately, teachers with students with ESN are often not familiar with multiliteracies or how to implement them in their classrooms (Krishnan, 2021).

Table 1

Description of the Multiple Modes of Expression in Multiliteracies

Mode	Description and Examples
Written	Writing and reading (handwriting, the printed page, the screen)
Oral	Live or recorded speech, listening
Visual	Still or moving image (representing meaning to another); view, scene, perspective (representing meaning to oneself)
Audio	Music, ambient sounds, noises, alerts (representing meaning to another); hearing, listening (representing meaning to oneself)
Tactile	Touch, smell, taste, grasp, cooking and eating; Kinaesthesia, physical contact, skin sensations (heat/cold, texture, pressure), aromas; manipulable objects, artefacts
Gestural	Movements of hands and arms, dance, facial expressions, eye movements and gaze; demeanors of the body, gait; clothing and fashion, hair style, action sequences, timing, frequency, ceremony and ritual
Spatial	Proximity, spacing, layout, interpersonal distance, territoriality, architecture, building, streetscape, cityscape, landscape

Note. Adapted from "The What of Multiliteracies (2): Multimodality" by M. Kalantzis and B. Cope, 2018; see <http://newlearningonline.com/multiliteracies/theory>.

The purpose of this paper is to describe the process of designing experiences using multiliteracies and provide an example for implementing multiliteracies with students with ESN.

What are Multiliteracies?

Multiliteracies (New London Group, 1996) refer to designing student experiences using expansive notions of literacy, including multimedia technologies, multimodality, and varied texts (for example, social media texts; song lyrics; texts in contexts such as signs, labels, and directories; and texts in dialects). Thus, multiliteracies encourage multiculturalism by accepting all textual modes, whether officially recognized (e.g., the Oxford English Dictionary) or unrecognized (e.g., text messages, graffiti, nonverbal or non-written texts), considering them worthy of interpretation, analysis, and production. Finally, multiliteracies use four knowledge-creating processes to design experiences in learning, including experiencing, conceptualizing, analyzing, and applying, as shown in figure 1 (Cope and Kalantzis, 2015).

Figure 1 describes the activities that a teacher can use to design lessons using these four knowledge processes. Each process has two categories, one providing essential learning and one providing more expert learning opportunities. For example, a teacher may design activities in experiencing (upper left quadrant in figure 1), first by creating or recalling familiar experiences with activities like talking about lived experiences at home or community and later by exposing students to newer experiences through activities like science experiments or community outings. Similarly, a teacher may design activities in conceptualizing (upper right quadrant in figure 1), first by naming and identifying concepts with activities like defining terms or labeling a diagram, and later learning a new theory through making concept maps or drawing diagrams. Next, the teacher may address analyzing (lower right quadrant in figure 1) first functionally by including activities like creating a flow diagram to explain an event and later critically, by holding a debate or asking students to predict consequences of given events. Finally, the teacher can initially apply the knowledge in transformed practice (lower left quadrant in figure 1) appropriately within the classroom context through activities like presentations, drama, art, writing or a hands-on project and then creatively using these projects in a new social context or setting.

Implementing multiliteracies in the classroom can be seen as a four-step process in which the teacher implements each of the four components described above. Teachers may pick any subject area to implement multiliteracies in the classroom. However, before implementing the lesson, the teacher may want to pick the most appropriate topic for their class, decide on the multimodal platform, and pre-teach any tools, programs, applications, or devices to use in the lesson. Research shows that teachers have successfully implemented multiliteracies in diverse contexts like language, science, social studies, math, and digital literacy (Allison & Goldston, 2018; Kenna et al., 2018; Takeuchi, 2015).

When deciding on a topic, it may be helpful for teachers who work with students with ESN to choose one that would be motivating, engaging, challenging, and valuable in the real world. It must be noted that these students may continue to need physical support for activities needing motor skills; learning supports like scaffolding, prompting, and simplified tasks; and social or communication supports in the form of assistive devices. However, scholars have suggested that the framework of multiliteracies provides more opportunities for students with ESN to show their competence by expanding notions of accessibility from merely providing physical access (large print, braille) to providing intellectual access (situated experiences, graphic organizers, word banks, word prediction) and social access (developing interactions with social groups) (Narain & Surabian, 2014).

Situated Practice/Experiencing		Overt Instruction/Conceptualizing	
Experience the new Introduce the new experiences through immersion: listening, watching, viewing, visiting, making, doing new	Experience the known Bring in speakers, Talk about familiar, Watch, view or listen to familiar experiences	Conceptualize by naming Define terms, label a diagram, sort and categorize	Conceptualize with theory Draw a diagram, make a summary, make a concept map, describe a theory that puts concepts together
Apply creatively Apply knowledge in a different setting like write a letter to the city council to take action, take a creative risk by performing in a drama or writing a poem about the topic, suggest a new problem	Apply appropriately Write, draw, act, make in the classroom or in the familiar setting	Analyze functionally Write an explanation, create a flow diagram, make a model, create a storyboard	Analyze critically Analyze purpose, hold debates, predict and discuss consequences,
Transformed Practice/Applying		Critical Framing/Analyzing	

Figure 1: Designing lessons with multiliteracies

Note: Adapted from *A Pedagogy of Multiliteracies: Learning by Design* (p. 17, 18) by B. Cope & M. Kalantzis, 2015, Palgrave MacMillan. Copyright 2015 by Cope & Kalantzis.

Bella decided to engage John in a literacy activity where he could narrate the story of his life, interests, and preferences. Bella considered many options like hands-on projects, guest speakers, community outings, or viewing videos. For example, John could use an album, a poster, or a diorama to tell his life story. Alternatively, John could make a video of his family, school, and community to narrate his experiences. One platform that allows students to engage multimodally is the digital multimodal book. Students can create multimodal books using application programs for tablets or computers like Book Creator™, Kid in Story Book Maker™, or My Story School eBook Creator™. These programs allow students to input text, images, video, or audio from an existing library, the Internet, or record directly into the application.

Bella considered the context, modes of communication, student interests, and student preference before deciding on the activities. For instance, although challenging and engaging, a hands-on project of building a model atom would not suit students whose motor skills did not allow them to participate in the activity. Likewise, a visual or audio project would not be the best choice for a visually impaired or hard-of-hearing student. Bella deliberated on John's strengths and preferred activities. She asked John if he would like to put together images and videos of his family, school, or community and write or speak comments on these images and videos. John was enthusiastic about the idea. As John already possessed a tablet at school, she decided to use the software application Book Creator (www.bookcreator.com), which she installed on his tablet.

Pre-teaching Skills

Students can start by learning the application's essential features, like creating background designs or changing the color and font size, and then to more difficult actions such as inputting text, audio, or video. It might be helpful to establish a routine time for the tablet application so that the students can anticipate and look forward to the learning experience. This process may take a few days to a week, and assists in highlighting any barriers to access that the teacher can address before the start of the project. The students do not need to be fully competent in using the tools or devices, only be introduced to them. Teachers can also pre-program students' AAC devices to input any words or phrases that the student may require in the project.

Bella planned to use the tablet application with John three times a week during his journal time at the end of the day. She introduced one aspect of the application's features in each session. For example, John could start by creating the book, the title, the background color, or the design and selecting font sizes or colors for the text. Next, he could input existing images or videos stored on the device or the internet and position them on the book's pages. Then, John could take pictures or videos directly from the application. Finally, he could add comments via text, audio, video, or draw using the digital pen. Students using AAC devices could easily use the tablet to input and position images and use the device to add their comments on the images.

Implementing Multiliteracies with Students with Extensive Support Needs

Step 1. Experiencing in Situated Practice

Experiencing

Research shows that when students get immersed in experiences in the real world or share what they are familiar with, their confidence and self-esteem improve, and they engage better in the learning process (Burke, 2013; Prasad, 2013; Skerrett, 2013; Steele, 2005). In our example, to situate the learning in the students' lives, the teacher may collect pictures (print or digital) and videos of family members and friends, places that the family visits, celebrations, or the student's favorite objects at home. If the family is unable or unwilling to provide pictures or videos, the teacher or staff may take pictures and videos of the student's school life or the routine community outings. From these existing images and videos, the students can select the pictures they want in the book. This step is part of the knowledge process of *experiencing the known* or the familiar. When the students are ready for new experiences, they may take new pictures/videos at school and home to add to the book's pages using their tablet devices. In this way, students with extensive support needs can move from being passive consumers of media to becoming active producers of media.

Bella realized that she would need to involve John's family and friends to provide images and videos of his home and community experiences. She contacted the family, and they were happy to send her many pictures from various stages of John's life. Bella also contacted the therapists who worked with him and some friends who provided other pictures of John in the community, at parties, summer camps, and horse riding. She showed these pictures to John, and he chose the ones he wanted to place in the book. Bella observed that John liked to place the pictures at a slant on the page and sometimes showed his sense of humor by placing them upside down.

Step 2. Conceptualizing

In this process, teachers scaffold and support students in the knowledge process of systematic, analytic, and conscious understanding using multiple modalities. Research shows that students successfully develop concepts when multiliteracies are used to provide explicit, scaffolded instruction in diverse subjects including, media literacy, social studies, and digital literacy (Cooper, Lockyer, & Brown, 2013; Tan & Guo, 2014). Initially, students name or identify concepts. Thus, students can add a caption to the pictures and videos to *conceptualize by naming* in our example. The caption could be progressively a word, phrase, or sentence in textual, visual, audio, or other communication modes.

Students can extend the activity to conceptual categories like people, actions, objects, or places in the images or videos. By providing intellectual access to concepts using multimedia, making captions presents an opportunity for students to grow in digital literacy and communicate using signs and symbols, particularly for those using AAC devices. Further, students can also sort images and videos into categories like home, school, or community in this step. Students using AAC devices will need access to these conceptual categories on their devices.

The advanced step in this process is *conceptualizing with theory*. The students generalize, abstract, predict, and hypothesize from what they have learned in the conceptualizing stage. Conceptualizing with theory is vital for understanding relationships between concepts and is crucial for academic success. For instance, in this step, students can compare or contrast the images using criteria given by the teacher (possibly color, size, shape, weather, places) or develop their own criteria. Teachers can provide students access to conceptualizing through the use of graphic organizers, pictures, or videos describing the concepts. Additionally, students can connect the images to other topics like clothing, holidays, the weather, or the seasons.

John typed in a sentence about each image and video with a bit of help from Bella. Bella observed that John participated enthusiastically in this activity, and she saw that he was learning to spell new words and make longer sentences. To stretch John's learning further and move on to conceptualizing with theory, Bella decided to use a sorting activity. To make the sorting activity more student-centered, Bella had John determine the criteria for categorizing the images and videos. John wanted to sort the pictures according to the color of the shirt he wore in the pictures. Bella supported his decision and considered his effort as valid and meaningful. Bella noticed that as John became more engaged in her lessons, her interactions with John began to change. John responded to her questions and wanted to continue their conversations. For example, when she asked John to choose a picture and write a sentence on it, the conversation went like this:

Bella (holding up two pictures): Okay, let's look at two pictures you selected yesterday, and you can choose on which one you want to write a sentence. We have the picture with mom and dad and a picture of you. Which picture do you want to use?

John: This picture (pointing to a picture of himself).

Bella: Great! What do you want to say about the picture? It's a great picture, by the way!

John: I went sailing on a sailboat.

Bella: Oh, I don't see a sailboat in the picture. Did you go sailing before or after this picture was taken?

John waits.

John: After.

Bella: Oh good! Let's add your sentence to the book. Do you want to record your voice or type in the text?

There were several essential teaching strategies adopted by Bella, that allowed John to participate in the two stages of conceptualizing successfully. First, Bella set up the lesson for success using meaningful materials situated in the student's life. Then, she used the affordances of digital technology to provide access to John, who may have had a more challenging time writing. If John did not want to type, he could have chosen to record his voice in the book. Further, Bella also observed John closely and gave meaning to his silences and gestures when he was waiting. This close observation helped John continue with his work. Finally, Bella presumed John's competence during her instruction. For example, when John described the picture as "I went sailing on the sailboat," she did not tell John that his sentence was incorrect as there was no boat in the picture. Instead, she probed further into John's response. By presuming competence, the teacher opened a new learning space for John to think about the timing and the sequence of events.

If Bella wanted to engage students who use AAC devices, once the students decided what images they wanted in their book, she would have to program their devices for the possible vocabulary words that the students would need to make sentences about the images, which she could record into the book. One of the activities that could help students improve their literacy outcomes might be to spell some words or even recognize the starting and/or ending sounds of the words.

Step 3. Analyzing

During the knowledge process of *analyzing*, students explain orally, visually, or through multimedia what they have understood or argue for a claim they have made. Research shows that students gain insights into the problems of power inequity, gender-stereotyping, and injustice, when taught to apply a critical lens (Ajayi, 2010; Tan & Guo, 2014). In our example, teachers can help students think about why they selected particular images and videos and not others. Some scaffolding may be initially necessary to encourage students to think more deeply about their choices. One way to scaffold the responses of the students is to use cloze sentences like "I chose this picture because, _____" and then provide choices for the students.

Students can examine functional cause and effect, draw inferences, and look for logical connections. When analyzing functionally, students can draw diagrams comparing the images or videos. A Venn diagram is an example of a tool that would help the students visualize similarities and differences. Graphic organizers like a timeline or cause-effect diagrams can provide the students with more opportunities to extend their learning. Students proficient with using the pen tool on the application can draw pictures or shapes on the pages directly. Students not proficient in using writing tools can use teacher-made graphic organizers and select items that go in each category verbally, gesturally, or using their AAC devices.

The second stage of analyzing is *analyzing critically*, in which students critically evaluate one's own and others' motives and experiences. In this process, the students become aware of the emotions and intent of people around them. A crucial aspect of analyzing critically is making a claim and providing a reasonable explanation for the claim. For example, the students can identify emotions in the images and explain what caused people in the images or videos to feel a particular way. Another example is to reflect on whose interests were served in the images and whether their preferences were considered during the activities. These analyzing activities, even when done in small steps, will contribute to building self-advocacy skills in students. Some students, including those using AAC devices, may need scaffolding depending upon their skill level in using the device. For example, in response to the question, why did (a person) feel (an emotion), some students may need a template programmed in their devices using the sentence format: _____ felt _____ because _____. Others may need the sentence with icons, and still others with pictures.

Bella used the images and videos to generalize the emotion words that John knew. John identified emotions like happy, tired, excited, worried, and relaxed. Then, Bella helped John put some images on a timeline. She encouraged John to reflect on how he and his family have changed over the years by looking at the timeline he created. John could find some similarities and differences when looking at images of school on the timeline and commented that he did not like his elementary school class because it was too noisy. He showed critical awareness by explaining his claim that he enjoyed going to the drama class at school because his friends in that class were nice to him.

Step 4. Applying

Students apply their knowledge when they use it in the real world. Scholars have shown that students can successfully apply their knowledge in new settings to demonstrate understanding of their subject (Ajayi, 2010; Prasad, 2013; Skerrett, 2013). For example, as a first step, after the students have finished the book, they can present it to their class. This classroom presentation is an example of *applying the knowledge appropriately* (Cope & Kalantzis, 2015). The presentation can be a simple classroom event, or the students may invite their families and friends to participate in the event. The teacher may decide to use the classroom presentation to rehearse and then have a final session with families and friends present. Students fluent in reading can read their book and talk about the pictures they selected. Other students who are not yet fluent in reading or speaking can use the application function that reads the text aloud or use their AAC devices to present by asking a peer or staff to move on to the next page. Narain and Subarian (2014) state that even the act of students with significant disabilities participating in a group literacy activity with the whole class by virtually turning a page begins to reposition their identity as competent learners.

In *applying creatively*, students use their knowledge in a setting different from the classroom in an innovative manner. One option is to use the book presentation as student input at the IEP meeting. When students present their book at the IEP meeting, the team can consider their input on their preferences and interests while considering goals and services for the student. Alternatively, students could use this book as a multimodal resume when applying for a job or as part of their transition plan to adulthood.

John presented his book at his IEP meeting. He was very excited to come to the meeting. He pointed to the tablet almost immediately as he entered the conference room saying, “We are going to watch my book on Ms. Bella’s tablet.” He was smiling and very relaxed. After everyone had assembled, John started the presentation. He walked up to the screen without prompting, pointed to the pictures, and read the sentences. After John read the first page, he used his tablet to move on to the next page. John commented on the pictures, adding details about his family vacation, houseboat, and horse riding. Then he pointed to each video and his favorite activities and commented on them, describing them clearly. He also described where the activities were happening at school. For example, he said, “PE with Mr. Chang in the gym,” and “we are having brunch in the cafeteria.” The team members saw a relaxed John, without any of the behaviors noted in the classroom, giving a very competent presentation.

Implementing Multiliteracies in Other Content Areas

The above example describes how teachers can use multiliteracies to teach students to create narratives about themselves. Research indicates that teachers can use multiliteracies to teach any content area such as science, social studies, math, or vocational skills successfully (Allison & Goldston, 2018; Dalton, 2014). For example, Allison & Goldston (2018) show that students showed greater engagement in the science activities with multiliteracies while also developing their scientific literacy skills. An example of using the pedagogy of multiliteracies for a lesson in life sciences is described below using the Next Generation Science Standards (NGSS) for elementary school, grade 3: *LS4-3-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.* In this example, the chosen modality is hands-on tactile and physical manipulation rather than the digital modality of the previous example.

Step 1. Experiencing

Experiencing the Familiar. Students walk around a familiar park, yard or school playground, pick up leaves, take pictures of trees, shrubs, flowers. Then, they put these together in scrapbooks.

Experiencing the New. Students plant seeds in plastic bags soaking them with wet cotton bits. They observe and record the growth of the plants multimodally, for example, on worksheets, orally (or through AAC devices), or pointing to choices on their devices or paper.

Step 2. Conceptualizing

Conceptualizing with Naming. Students label the parts of the plant- namely, roots, stem, leaves in the plastic bag or on pre-made worksheets again multimodally in several ways (orally (or through AAC devices), marking, writing, pointing, coloring)

Conceptualizing with Theory. Students draw diagrams of plants and label the parts. They also draw diagrams of trees and label the parts. Then, they compare the two diagrams (orally or via AAC devices, written, images, or videos) by detailing how the parts of the tree are different from the parts of the plants in the plastic bag.

Step 3. Analyzing

Analyzing Functionally. Students examine what happens when the seed does not get water/sunlight. Students may draw a Venn diagram or use a pre-drawn diagram and state differences in the plants with water/sunlight and without water/sunlight (orally or via AAC devices, written, images, videos).

Analyzing Critically. Students reflect on their own feelings regarding plants. This activity could include questions like what plants or flowers they like and why. They may also discuss the importance of plants, trees, flowers, and parks in their own lives and the life of other people or animals. Again, as in all the steps above, giving students their mode of expression is crucial to their engagement and their opportunity for success.

Step 4. Applying

Applying Appropriately. Students plant flowers in a pot to take home or keep in class. Students can learn to take care of plants in the classroom. Students take care of plants at home.

Applying Creatively. Students can have a potted flower sale for the entire school; they can sell potted herbs to staff or parents; they can gift potted plants to teachers around school to keep in their classes, which could be later taken care of by the students as vocational skill training; or they can volunteer at a local farm or garden.

Conclusion

The examples provided here are a starting point for implementing multiliteracies with students with ESN. The four knowledge processes of multiliteracies, namely, experiencing, conceptualizing, analyzing, and applying, provide many affordances to these students. Situating learning in real-life experiences becomes meaningful and relevant to the students (Llopart & Esteban-Guitart, 2018). When combined with appropriate tools and opportunities for success, scaffolded conceptualizing helps students gain knowledge and demonstrate competence. Further, students can access higher-level thinking skills by reflecting on the material they are learning during the knowledge process of analyzing (New London Group, 1996). Finally, students learn to generalize and creatively apply their knowledge in the real world by applying the knowledge in familiar and unfamiliar settings. Thus, the pedagogy of multiliteracies is uniquely suited to teaching students with ESN and helps provide challenging literacy and higher-level skills to all students regardless of their fluency in language or learning modality.

References

- Ajayi, L. (2010). Preservice teachers' knowledge, attitudes, and perception of their preparation to teach multiliteracies/multimodality. *The Teacher Educator*, 46(1), 6-31.
<https://doi.org/10.1080/08878730.2010.488279>
- Allison, E., Goldston, M.J. Modern Scientific literacy: A case study of multiliteracies and scientific practices in a fifth grade classroom. *Journal of Science Education Technology* 27, 270–283 (2018). <https://doi.org/10.1007/s10956-017-9723-z>
- Burke, A. (2013). Creating identity: The online worlds of two English language learners. *Language and Literacy*, 15(3), 31–49. <https://doi.org/10.20360/G2DS38>

- Cope, B., & Kalantzis, M. (2015). The things you do to know: An introduction to the pedagogy of multiliteracies. In *A pedagogy of multiliteracies* (pp. 1-36). Palgrave Macmillan UK.
- Collins, K. M. (2011). "My mom says I'm really creative!": Disability, positioning, and resistance in multimodal instructional contexts. *Language Arts*, 88(6), 409-418. <https://www.jstor.org/stable/41804300>
- Cooper, N., Lockyer, L., & Brown, I. (2013). Developing multiliteracies in a technology-mediated environment. *Educational Media International*, 50(2), 93-107. <https://doi.org/10.1080/09523987.2013.795350>
- Cummins, J., & Early, M. (2010). *Identity texts: The collaborative creation of power in multilingual schools*. Trentham Books Ltd..
- Dalton, B. (2014). Level up with multimodal composition in social studies. *Reading Teacher*, 68(4), 296-302. <https://doi.org/10.1002/trtr.1319>
- Forts, A. M., & Luckasson, R. (2011). Reading, writing, and friendship: Adult implications of effective literacy instruction for students with intellectual disability. *Research and Practice for Persons with Severe Disabilities*, 36(3-4), 121-125. <https://doi.org/10.2511/027494811800824417>
- Garcia, A. L. A., & Seglem, R. (2018). Looking at the next 20 years of multiliteracies: A discussion with Allan Luke. *Theory Into Practice*, 57(1), 72-78. <https://doi.org/10.1080/00405841.2017.1390330>
- Katims, D. S. (2000). Literacy instruction for people with mental retardation: Historical highlights and contemporary analysis. *Education and Training in Mental Retardation and Developmental Disabilities*, 35(1), 3-15.
- Kenna, J. L., Russell III, W. B., & Bittman, B. (2018). How secondary social studies teachers define literacy and implement literacy teaching strategies: A qualitative research study. *History Education Research Journal*, 15(2), 216-232.
- Kilinic, S., Chapman, K., Kelley, M. F., Adams, K., & Millinger, J. (2016). Teachers' reconceptualization of young children's identities and abilities through research-based drama professional development. *International Journal of Education & the Arts*, 17(22). <http://www.ijea.org/v17n22/>
- Kliwer, C. (2008). Seeing all kids as readers: A new vision for literacy in the inclusive early childhood classroom. Paul H. Brookes Pub..
- Kliwer, C., & Biklen, D. (2001). "School's not really a place for reading": A research synthesis of the literate lives of students with severe disabilities. *Journal of the Association for Persons with Severe Handicaps*, 26(1), 1-12. <https://doi.org/10.2511/rpsd.26.1.1>
- Krishnan, S. (2021). The Role of multiliteracies in changing learning pspaces and promoting self-advocacy for students with complex support needs. *Research and Practice for Persons with Severe Disabilities*, 46(2), 108-124. <https://doi.org/10.1177/15407969211010307>
- Leander, K. M., & Lovvorn, J. F. (2006). Literacy networks: Following the circulation of texts, bodies, and objects in the schooling and online gaming of one youth. *Cognition and Instruction*, 24(3), 291-340. https://doi.org/10.1207/s1532690xc12403_1
- Llopart, M., & Esteban-Guitart, M. (2017). Strategies and resources for contextualising the curriculum based on the funds of knowledge approach: a literature review. *Australian Educational Researcher* 44, 255-274. <https://doi.org/10.1007/s13384-017-0237-8>
- Naraian, S., & Surabian, M. (2014). New literacy studies: An alternative frame for preparing teachers to use assistive technology. *Teacher Education and Special Education*, 37(4), 330-346. <https://doi.org/10.1177/0888406414538843>

- Prasad, G. (2013). Children as co-ethnographers of their plurilingual literacy practices: An exploratory case study. *Language and Literacy*, 15(3), 4–30.
<https://doi.org/10.20360/G2901N>
- Skerrett, A. (2013). Building multiliterate and multilingual writing practices and identities. *English Education*, 45(4), 322–360. <https://www.jstor.org/stable/24570979>
- Steele, M. M. (2005). Teaching students with learning disabilities: Constructivism or behaviorism? *Current Issues in Education*, 8(10).
<http://cie.asu.edu/ojs/index.php/cieatasu/article/view/1607>
- Takeuchi, M. (2015). The situated multiliteracies approach to classroom participation: English language learners' participation in classroom mathematics practices. *Journal of Language, Identity & Education*, 14(3), 159-178.
<https://doi.org/10.1080/15348458.2015.1041341>
- Tan, L., & Guo, L. (2014). Multiliteracies in an outcome-driven curriculum: Where is its fit?. *The Asia-Pacific Education Researcher*, 23(1), 29-36.
<https://doi.org/10.1007/s40299-013-0082-0>
- The New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66(1), 60-93.
- Zhang, Z., Nagle, J., McKishnie, B., Lin, Z., & Li, W. (2019). Scientific strengths and reported effectiveness: a systematic review of multiliteracies studies. *Pedagogies: An International Journal*, 14(1), 33-61. <https://doi.org/10.1080/1554480X.2018.1537188>

About the Author

Sudha Krishnan, Ed.D., is an assistant professor at San Jose State University. Her research interests are focused on how implementing literacy practices using pedagogies based on socio-cultural theory can provide challenging and empowering education for students with extensive support needs. She is also examining the use of constructivism in special education, disrupting deficit thinking in teacher candidates, and teacher perceptions of ability in students with extensive support needs.

Influence of Resource Availability on Disability-inclusion in Under-resourced Early Childhood Development Centers

Esther Musengi, D.Ed
Zimbabwe Open University

Abstract

This study analyzed the influence of resource availability on inclusion of children with various disabilities in rural early childhood development centers in Zimbabwe. A qualitative descriptive design utilizing questionnaires and interviews was used to collect data from 36 teachers, 12 school-heads and 24 parents of children with disabilities who were purposefully sampled. Deductive thematic analysis was used to identify themes emerging from open-ended questionnaire items and interviews. The study revealed that disability-friendly commercial resources were unavailable, and this negatively influenced the inclusion of children with disabilities who were unable to freely participate in play activities and so were isolated to a large extent. This is despite widely available indigenous resources that were not utilized as inclusive supports. The study's findings are utilized to build a case for a heritage-based model of inclusive education.

Keywords: disability-inclusion, indigenous resources, rurality, heritage-based inclusive education

Influence of Resource Availability on Disability-inclusion in Under-resourced Early Childhood Development Centers

Introduction

Despite the growing body of knowledge and scholarship globally in disability-inclusive education, there is sparse research that is context sensitive related to resource availability issues in Low and Middle Income (LMI) countries in Africa and on the African continent in particular. There is therefore, not much understanding of the proximal and distal eco-cultural circumstances of childhood disability that can shape indigenous disability-inclusive education processes in early childhood in order to integrate with pre-existing Global North practices and knowledge. This study set out to find out how resource availability influenced the inclusion of children with disabilities in early childhood development centers in primary schools in Zimbabwe, a low income country in Africa that is emerging from years of economic crisis.

Global impacts of limited resources

Globally, literature showed a trend in which resources play a key role in inclusive early childhood development. Literature revealed that lack of resources negatively influences inclusion of students with disabilities. Some countries where studies revealed this are shown in Table 1.

Table 1

Studies finding that lack of resources negatively influences inclusion

Country	Study
United States	Okoro et al., (2018); Tatter (2019); Anderson (2019).

United Kingdom	Griffiths (2020); Stewart (2020).
India	Limaye (2016); Singh (2016); Tripathi (2018); Chakraborti-Ghosh (2017).
Nigeria	Adeniyi et al., (2015).
Kenya	Owuor (2014); Omondi (2016); Okongo et al., (2015).
Malawi	Chavuta et al., (2008).
Namibia	Mokaleng (2019).
South Africa	Walton (2018); Adewumi (2019).

In addition to the studies that found that lack of resources negatively influences inclusion, the literature also revealed that low budgetary allocation results in inadequate resources for inclusion. Literature from the U.S. (Okoro et al., 2018; Tatter, 2019; Anderson, 2019), Namibia (Zimba et al., 2007; Sukhraj, 2008), Zambia (Hayes & Bulat, 2017), Cameroon (Mbibeh, 2013), Botswana (Dart, 2007), Kenya (Peter & Nderitu, 2014), and South Africa (Ntsnswisi, 2008; Tshifura, 2012) revealed that low budget allocations result in inadequate resources for inclusion.

Studies in Hong Kong revealed that lack of resources is a reason for failure to include learners with disabilities and that resources for inclusive education have not been infused into general education to ensure effective teaching in inclusive classes (Zhang, 2011; Cheuk & Hatch, 2007). In Australia, Forlin (2006) reported that inclusive education had not been sustained by appropriate support structures at school level. Similarly, studies in New Zealand revealed that lack of human and material resources can provide the basis of both covert and overt discrimination against children with disabilities and their families in the educational setting (Purdue, 2009; William et al., 2014). From the above studies, one might conclude that without appropriate resources, schools cannot include all children with disabilities. Literature has indicated that availing resources positively influences the inclusion of children with disabilities (Adeniyi et al., 2015; Okongo et al., 2015). However, some studies found that schools often have more resources than they use for inclusive education and that without appropriate coordination, simply availing more resources did not necessarily improve inclusivity (Grönlund et al., 2010; Oliva, 2016).

Other studies in relatively well-resourced economies also found that educational personnel may be unaware of resources that already exist for inclusive education in the system, such as in the U.S. (Daane et al., 2000), Egypt (Moberg, 2000) and Finland (Sadek & Sadek, 2000). The present study, therefore, focused on establishing how the availability or unavailability of resources in an emerging economy influences the inclusion of children with disabilities in early childhood development.

Findings from studies in other emerging economies from countries in Africa have concurred with global studies that have shown that without appropriate resources, schools cannot include all children with disabilities. For example, in Cameroon (Mbibeh, 2013), Namibia (Zimba et al., 2007), Botswana (Dart, 2007), Kenya (Peter & Nderitu, 2014) and South Africa (Ntsnswisi, 2008; Eloff & Kgwete, 2007; Tshifura, 2012), it was found that parents, teachers and administrators were of the opinion that low budgetary allocations were an impediment to the implementation of inclusive education for children with disabilities. Low budgetary allocations may result in schools not having enough funds to implement inclusive education. Furthermore,

most of these national budgets cannot sustain provision of assistive devices and teaching aids for children with disabilities. This implied that national budgetary decisions taken at that macro-systems level had profound effects in schools at the microsystem level and these effects were an impediment to the implementation of inclusive education for children with disabilities. The present study sought to establish the extent to which the above global scenario applied at early childhood level in rural elementary schools that are traditionally regarded as under-resourced.

Rural schools

Rural schools and the communities in which they serve have often been overlooked by researchers of inclusive education. This is despite the observation that the educational landscape may be very differently experienced in rural areas compared to urban areas and that there is a large proportion of learners attending rural schools (Musengi & Musengi, 2021). On one hand, they may be perceived as having constraints to inclusive education due to rurality. On the other hand, unlike urban areas, rural areas may be perceived as having stronger community ties of *Ubuntu*, the African worldview rooted in a collective sense of responsibility for group survival deriving from harmony achieved through interdependence and interconnectedness (Mkabela, 2005; Owusu-Ansah & Mji, 2013).

In this light, rural communities may have unexplored, intrinsic strengths that can be utilized for inclusive educational practices. This study set to explore how the particularities of rural communities can be considered to utilize indigenous knowledge to overcome perceived limitations by appropriately responding to diversity in rural schools. The study adopts understandings of rurality that recognize it as multi-faceted, complex, and fluid. It discusses cleavages of disadvantages as they exist between urban and rural schools as well as those that exist within rural schools. The study utilizes the social location of disability to analyze how its intersection with rurality can influence inclusive educational biographies.

As alluded to in the preceding paragraph, rurality may be conceived of in two different ways which are further explored here. Halfacree (2006) and Cloke (2006) posit physical and representational understandings of rurality. In the physical perspective, rurality is viewed as specific locations with low population densities, and which rely on natural resource economics (Cloke, 2006). According to Brann-Barrett (2015) this view is limited by its reliance on an urban-rural dichotomy in which the urban is typically placed at the center and the rural is identified as ‘the other’. Brann-Barrett (2015) goes on to cite Corbett and White (2014) who also point out that this philosophy ignores the interconnectedness of rural and urban spaces. For example, technological connections enable rural relationships with urban and even global spaces.

On the other hand, the representational rural is the imagined in which Tuters (2014) says can be used to signal deficiency and backwardness or to designate communitarianism, nature, and tradition. Pinie et al., (2014) indicate that these imaginations of the rural often prescribe what the rural must be, while preventing it from “speaking back”. Pinie et al., (2014) go on to argue for adopting understandings of rurality that recognize it as multi-faceted, complex, and fluid. Overly deterministic and unit-dimensional representations of the rural are informed by Western Cartesian binary thinking which also informs the scientific determinism on which the medical model of Special Needs Education and inclusivity continue to be grounded.

The Zimbabwe Context

Zimbabwe is a southern African landlocked, low-income, largely rural former British colony that is emerging from years of economic crises. It was ranked 146 out of 191 countries in the 2021/22 Human Development Index, a composite measure used to quantify average achievement on three basic dimensions of human development, that is, a long and healthy life, knowledge and a decent standard of living (UNDP, 2021). A World Food Program (2023) report explains Zimbabwe's widespread poverty on the basis of 42% of the 15 million population as people living in extreme poverty and 26.7% of children having stunted growth. The report goes on to list limited employment opportunities, liquidity challenges, recurrent climate-induced shocks and economic instability as contributing to Zimbabwe's low-income economy status. The country has a strong, charity-grounded and largely urban system of special schools for learners with specific disabilities that was inherited from the colonial, pre-independence era. Since the special schools were not enough to cater for all learners with disabilities, the post-independence government introduced inclusive education.

Despite introducing inclusive education, Zimbabwe does not have legislation specific for special or inclusive education and relies on general education legislation and policies. For example, the general Education Act (1996) outlaws discrimination from education on a list of grounds that does not specify disability although disability is generally understood to be one of the grounds on which one cannot be excluded from education. Similarly, the National Disability Policy (2021) advocates free access to education if resources permit. With this general understanding therefore, most children with disabilities are typically in rural schools where they are taught in under-resourced general education classrooms, with minimal policy direction. Hence, the current study to find out how resource availability influences inclusion.

Method

Study Design

The present study utilized a qualitative descriptive design that aligns to constructionism (Burr, 1995; Doyle et al., 2020) and the multiple, subjective realities of how resource availability influences inclusion in a particular context. It provides straightforward descriptions of socially produced experiences and perceptions (Lincoln et al., 2017; Sandelowski, 2010) regarding the utility of resources for children with disabilities in early childhood development centers. The descriptive design was chosen for its flexibility as it is not aligned to specific methods (Doyle et al., 2020), thereby allowing the "borrowing" from other designs of methods appropriate to the current study. This flexibility of the descriptive design is preferable to forcing a research approach into a design that is not quite appropriate for the nature of the intended study. Data from open-ended questionnaires and interviews yielded rich, detailed descriptive perceptions of how resource availability affects the inclusion of children with disabilities in early childhood development.

Sample and sampling procedure

The target population that the sample was chosen from consisted of 309 school-heads, 2 085 teachers of learners at the Early Childhood Development (ECD) level of elementary schools and an estimated 89 000 parents of learners who met the criteria for the study. The criteria were that school-heads and teachers had to be employed in an economically disadvantaged, rural primary

school while parents had to be biological parents or guardians of schoolchildren with disabilities from these schools. Purposeful sampling was used in the current study to achieve what Creswell and Piano Clark (2011) called the identification and selection of information-rich cases for the most effective use of limited resources.

The typical case strategy of purposeful sampling (Palinkas et al., 2015) was used to select teachers who teach children with disabilities. Typical teachers in this study had elementary teacher training and so these formed the core of the teacher sub-sample to enable them to provide information on how resources influence the inclusion of these learners in their classes. The maximum variation strategy of purposeful sampling (Palinkas et al., 2015) was used to select parents of children with disabilities so that they could provide a range of resource influences on their ECD level children in inclusive elementary school settings. Parents of children with varying types, severities and experiences of disabilities were deliberately selected. Palinkas et al.'s (2015) stratified purposeful sampling was used for selecting school-heads. This technique was used to capture how school-heads with major variations in administrative background perceived resource influences on inclusion of children with disabilities at early childhood development level in different primary schools. School-heads with various types of qualifications and experience in different sizes of schools were deliberately selected. The present study consisted of 72 participants. Of these 72, thirty-six were teachers, 24 were parents and 12 were school-heads.

Data analysis

Deductive thematic analysis (Braun & Clarke, 2006) was used to identify themes emerging from six open-ended ECD-level teachers' questionnaire items, six open-ended school-heads' questionnaire items and 18 open-ended items from the parents' interviews. Analysis was driven by the researcher's analytic interest in how resource availability influences inclusion of children with disabilities at the early childhood development level. The researcher was interested in how resource availability influenced inclusion and focused on this particular feature in coding the data as this had potential to speak to or even expand on something approximating the original research question. Following Frith and Gleeson (2004), analysis was done primarily at the semantic level where themes were identified within the explicit or surface meanings of the data. According to Chafe (2017), it is important to keep analysis at a level at which those to whom the research pertains are able to understand so that they can use the findings. To this end, the analytic process involved a progression from description, which entailed simply organizing data to show patterns in semantic content, summarizing the data and then interpreting it by theorizing the significance of the patterns and their broader meanings and implications (Patton, 1990; Braun & Clarke, 2006) regarding resource availability and utility for inclusivity. Researcher judgment was used to determine what counted as a theme and this was dependent on whether something important was being captured in relation to the analytic question of how resource availability influenced inclusion.

Results

This section presents the results of the present study in answer to the question on the extent to which the availability of resources influences the inclusion of children with disabilities at the early childhood level of rural elementary education. These results are organized into two themes that emerged from analysis, that is, *Resource allocation* and *Resource availability and utility*.

Resource allocation

Participants were asked questions relating to their knowledge and experiences with allocation of resources for inclusive education of learners with disabilities at the early childhood development level. Some of the participating school-heads were of the view that government does not allocate a budget for children with disabilities in regular schools. The school-heads indicated that their mainstream schools lack a disabled children's budget allocation from government. They viewed budget allocations for children with disabilities as restricted to special schools. The following excerpts of qualitative data collection illustrate the above finding:

"Government allocates more money to special schools. We only get our usual per capita grants" (Head 5).

"Budgets for children with disabilities are only allocated in special schools such as Henry Murray" (Head 2).

"Mainstream primary schools are not having budgetary allocations for the Government but only in special schools" (Head 12).

"We are not a special school, so we do not have money set aside for children with disabilities (Head 8).

"Since I became Head here, I have never seen that money for children with disabilities from government. Usually that money for disabled children that you are talking about does not come at all. It is not useful to talk about it as if it comes" (Head 10).

Some school-heads were, however, aware of government's budgetary allocations to mainstream schools. Those who were aware of the allocation pointed out that the money allocated for children with disabilities in the mainstream schools was inadequate. They indicated that the low budgetary allocations were, therefore, negatively affecting inclusion. These views are demonstrated in the following excerpts:

"Money for children with special needs is allocated but it is very little. You cannot do much with it" (Head 3).

"Government allocates money for disabled children, but it is not much. The money is late in coming" (Head 9).

"Low budgetary allocations hinder inclusion of learners with disabilities in ECD centers" (Head 11).

"The success of inclusion of children with disabilities in ECD centers depends on the allocation of resources. Government needs to allocate more resources for inclusion (Head 7).

Resource availability and utility

Asked for their thoughts and experiences with available resources, participants had various experiences. The primary school-heads revealed that the availability of necessary resources leads to the success of inclusion of children with disabilities in ECD centers. The heads indicated that centers with fewer resources have challenges in making inclusion effective. They highlighted that availability of resources makes management of children with disabilities easier in ECD centers. These views are illustrated in the following excerpts:

“Our ECD classes lack the necessary resources for implementing proper inclusion of children with disabilities. We need resources” (Head 6).

“With few resources obviously, we cannot do much for children with disabilities. We need more resources for effective inclusion of these children” (Head 3).

“Centers with adequate resources implement inclusion successfully but those with little resources have challenges to implement inclusion” (Head 1).

“The availability of resources enables children with disabilities to be easily managed and included” (Head 8).

Like the school-heads’ views, some teachers indicated that budgetary support from government was needed. The teachers pointed out that budgetary support was necessary to complement their improvisations and innovations. They indicated that lack of support from government would result in inadequate assistive devices and learning materials, which would negatively affect inclusion of children with disabilities. These views are demonstrated in the following excerpts:

“We may improvise certain things using locally available resources, but it is never going to match the actual thing that government should have provided. So government needs to play its part and provide money for assistive devices” (Teacher 32).

“Although the teacher should be resourceful, government should chip in with funds to buy learning materials” (Teacher 26).

“Too much improvising on our part could end up harming the disabled child. There is need for government to buy necessary assistive devices” (Teacher 18).

“Inadequate resources are a barrier to the success of inclusion of children with disabilities in ECD Centers though we improvise where necessary (Teacher 30).

“Lack of wheelchairs and other assistive devices influence negatively the inclusion of children with disabilities in ECD” (Teacher 34).

“Government should support these children with hearing aids and so on so that they are assisted in their learning from an early age. We cannot be expected to be innovative where there are no gadgets such as hearing aids. These should just be provided by government so that we have inclusive education” (Teacher 15).

Some of the primary schoolteachers revealed that the availability of resources leads to the success of inclusion of children with disabilities in ECD centers. The teachers indicated that available resources enabled children with disabilities to socialize with non-disabled children and to participate in various aspects of life. They pointed out that appropriate resources empower children with disabilities so that they learn effectively. These views are demonstrated in the following excerpts:

“Resources influence the inclusion of children with disabilities very strongly for them to mix and interact with others” (Teacher 33).

“Resources are the key to the inclusion of children with disabilities in ECD” (Teacher 21).

“Buying and making resources available enables children with disabilities to be included in all aspects of life” (Teacher 11).

“Logically, ECD learners need resources hence the availability of resources impacts to a greater extent the inclusion of children with disabilities as the resources will equip and empower the skills necessary for his or her development” (Teacher 1).

“Children in ECD centers learn through play so children need a lot of appropriate resources to influence the inclusion of children with disabilities. This implies that no resources mean no learning will take place” (Teacher 2).

Conversely, the teachers were of the view that lack of resources was a hindrance to the inclusion of children with disabilities. Teachers indicated that resources were important for inclusion and that without them it would be extremely difficult if not impossible to implement inclusive education for children with disabilities. This is illustrated in the following excerpts:

“Lack of resources leads to failure in the inclusion of children with disabilities in ECD Centers” (Teacher 30).

“Without resources it is not easy to include children with disabilities in our classes” (Teacher 12).

“Successful inclusion can only happen if we have the resources. Otherwise, it is a waste of time” (Teacher 3).

“Without resources children with disabilities would not be able to mix with others, therefore no inclusion” (Teacher 33).

The parents were in general agreement that non-availability of resources negatively affects the inclusive education of their children with disabilities. In the interviews with parents of children with disabilities, some parents indicated their own lack of resources, such as school uniforms negatively affecting the inclusion of children with disabilities. They pointed out that without

school fees, the child's education would be interrupted frequently. These views are demonstrated in the following verbal quotes:

"The child will not go to school and the Head will chase the child away wanting school fees which I do not have" (Parent 2).

"Because I do not always get school fees in time, the child will not go to school and it will affect the child's learning" (Parent 3).

Asked to explain how the resources they avail to their children with disabilities influence inclusion, many parents observed that they had very few resources and sometimes lacked money to pay for school fees. This is shown in the following quotes:

"When a child goes to school without fees, the school will frequently send him or her back to collect money for fees. A lot of learning time will be lost" (Parent 24).

"Lack of fees and uniforms makes disabled children begin to look like beggars" (Parent 9).

"Disabled children whose fees has not been paid can easily lose the respect of others in the school" (Parent 6).

One parent pointed out that when her child, fails to go to school because of non-payment of school-fees, the child spends the day playing with friends in the village. She said:

"When I do not pay fees in time and X is sent back home, he spends the day making and playing with make-shift toys out in the fields and is joined by others when they return from school in the afternoon" (Parent 22).

Some of the parents of children with disabilities viewed the schools' lack of resources as hindering inclusion. The parents indicated that non-availability of equipment in the schools hinders the inclusion of children with disabilities in ECD. They also pointed out that if the school does not have assistive devices, the child would not be easily included in learning. This is demonstrated in the following verbal quotes:

"Lack of resources hinders the child's learning" (Parent 7).

"If resources are not available, this will exclude the child from learning" (Parent 18).

"Without equipment for teaching Braille or sign language in schools, children with disabilities will not be able to learn these things" (Parent 10).

"When assistive aids are not available in the school, children with disabilities struggle with their learning" (Parent 8).

“Ramps are very important in schools. Our school does not have them. This could affect the inclusion of children with disabilities who need to attend school there” (Parent 21).

Conversely, other parents indicated that availability of resources within the schools enables inclusion of their children with disabilities. The parents pointed out that availability of resources such as ramps, books and assistive devices would facilitate the inclusion of their children with disabilities. They indicated that play centers at schools are very useful for the inclusion of children with disabilities in ECD. These views are illustrated in the following verbal quotes:

“Play centers enable children to develop intellectually, physically and emotionally as they play” (Parent 6).

“Play centers enable the disabled child to interact with others” (Parent 9).

“Children learn through play thereby develop social skills and physical fitness at the play centers” (Parent 14).

“Playing at home is better as we know there are no real play centers” (Parent 18).

“At home all children are included in playing with the rough materials there” (Parent 2).

“Availability of play centers at a school makes both disabled and non-disabled children relax and mix freely. This is good for inclusion” (Parent 24).

Participants generally viewed lack of resources as negatively impacting the inclusion of children with disabilities in early childhood education centers in primary schools and some parents pointed out that these children were better included in home-based play centers that were not considered ‘real’ or formal.

Discussion

The present sub-section is a discussion of how resources influence the inclusion of children with disabilities in early childhood development as revealed by the results of the study. It emerged, from the current study, that participants believed that the availability of disability-friendly resources positively influences the inclusion of children with disabilities in ECD centers. However, the unavailability of funding to buy assistive devices and play materials was viewed by participants as the major impediment to children with disabilities and those without disabilities participating freely together in play. Availability of funding was likely to facilitate disability-friendly structures, which were then also likely to enable children with disabilities to become independent within the ECD centers. Such independence would most likely result in inclusion in various activities in and out of the classrooms. This finding of the present study, that availability of disability-friendly resources positively influences the inclusion of children with disabilities, is consistent with international literature, for example in the UK (Griffiths, 2020; Stewart, 2020), US (Okoro et al., 2018; Tatter, 2019; Anderson, 2019), Australia (Anderson & Boyle, 2017), Laos (Grimes, 2010), Vietnam (Rydstrom, 2010), China (Deng & Poon-McBryer,

2004), Sweden (Leddy, 2015), Botswana (Shumba & Taukobong, 2009), Ethiopia and Thailand (Schiemer & Proyer, 2013), Nigeria (Adeniyi et al., 2015), and Malawi (Chavuta et al., 2008), which all found that availability of resources positively influences the inclusion of children with disabilities. Similarly, previous Zimbabwean studies, for example Mushoriwa (2002), Chireshe (2013) and Chimhenga (2016), established that availability of resources was an important factor influencing inclusion.

The finding of the present study, that availability of resources would influence inclusion positively, however, contradicts Gronlund et al. (2010), who observed that simply availing more resources does not necessarily improve inclusivity in a school. Gronlund et al. (2010) noted that without appropriate coordination, the availability of more and more resources could lead to negative consequences for inclusive education. A possible explanation for this difference is that Gronlund et al. (2010) investigated the extent to which varying levels of resources were actually being utilized to improve educational outcomes in schools, while the current study did not focus on varying levels but, rather, on availability and unavailability of resources. In addition, the current study did not restrict itself to educational outcomes but broadly focused on the influence of available or unavailable resources on inclusion for children with disabilities.

The current study also revealed that participants viewed the unavailability of resources in ECD centers as negatively influencing the inclusion of children with disabilities to a large extent. Participants were agreeable that without adequate resources, schools cannot include more children with disabilities. The lack of appropriate support structures in schools was viewed as negatively affecting the inclusion of children with disabilities in ECD. This lack of appropriate support structures was compounded by a lack of adequate funds to buy assistive devices and play materials in schools. In combination, these deficiencies were a big barrier to the inclusion of children with disabilities in ECD. Without appropriate support structures, children with disabilities were unlikely to be able to freely participate in play activities and so would be isolated. This was ultimately likely to negatively affect the inclusion of children with disabilities.

The finding that lack of resources negatively influences inclusion concurs with prevailing literature, for example in Australia (Westwood & Graham, 2003), Canada (Wiar et al., 2013), New Zealand (Purdue, 2009), Hong Kong (Zhang, 2011; Cheuk & Hatch, 2007), India (Limaye, 2016; Singh, 2016; Tripathi, 2018; Chakraborti-Ghosh, 2017), Kenya (Omondi, 2016), Owuour, 2014), Lesotho (Serpell, 1999; Johnstone, 2007), Namibia (Eloff & Kgwete, 2007; Zimba et al., 2004; Zimba et al., 2007; Mokaleng, 2019) and South Africa (Department of Education, 2001; Stofile & Green, 2007; Walton, 2018; Adewumi, 2019) which all found that without adequate resources, inclusion is negatively affected.

Similarly, previous Zimbabwean studies, for example, (Mpofu, 2000, Chimedza, 2008; Musengi & Chireshe, 2012; Mpofu et al., 2007; Mpofu et al., 1997; Chireshe, 2013, Chimhenga, 2016; Majoko, 2016; Musengi, 2019) established that inadequate resources negatively affect inclusion. The current study's findings therefore support literature which reveals that shortage of resources is an impediment to the inclusion of children with disabilities. The current study's finding is consistent with Oliva's (2016) finding that schools often have more resources than they actually use for inclusive education. Freely available local resources that were being successfully utilized to include children in play activities at home were decried as rather informal as participants

appeared either unaware of their value or unable to fully utilize them in ECD centers in schools. Focus tended to be on low budgetary allocations which resulted in inadequate resources which, in turn, become a barrier to inclusive education. Paradoxically, this focus on low national budget is belied by the current study's finding that many school-heads appeared to be unaware of the availability of government's additional funds for each school that enrolls children with disabilities.

The current study found that many school-heads appeared to be unaware of the availability of government's additional funds for each school that enrolls children with disabilities. The school heads' unawareness of additional funding revealed a knowledge gap, which, therefore means that available additional funds are not being requested. In turn, this implies that no additional resources may be sourced for children with disabilities, thereby negatively influencing the inclusion of children with disabilities. The current study's finding on the school-heads' knowledge gap about additional funds for children with disabilities supports other studies, for example in the US (Daane et al., 2000), Egypt (Moberg, 2000) and Finland (Sadek & Sadek, 2000), which all established that principals may not have a good understanding of inclusive education as they may have received limited training on how to run an inclusive school. In the current study's finding, unawareness of government's additional funding for learners with disabilities means that resources available from government are not being utilized, thereby negatively affecting inclusion of children with disabilities at ECD level.

It also emerged, from the current study, that some participants viewed the unavailability of necessary resources from government as impeding the increased enrolment of children with disabilities and, therefore, their inclusion in ECD. Some school-heads and school-teachers viewed the provision of resources for inclusion as a government responsibility, which was not being fulfilled. The focus on government failing to provide resources is a focus on what Bronfenbrenner's Ecological System Theory called the macro system. The macro system includes government and political systems over which parents and educators have little control.

The educators viewed government, over which they had no control, as failing to provide resources for inclusive education. In terms of how they conceptualize inclusive education, this implies that the school-heads and school-teachers see the school as unchangeable until resources are availed from government in order to influence inclusion by increasing numbers of children with disabilities in schools. On the other hand, the parents of children with disabilities viewed the inclusion of their children as being negatively influenced by local unavailable commercial resources that needed to be availed at home, class and school in order to enable the holistic development of individual children with disabilities. The parents' focus on resources that are unavailable from home, class and school keeps responsibility for inclusion within Bronfenbrenner's microsystem and mesosystem levels in the ecological theory. The microsystem consists of the child's nuclear family, while the mesosystem consists of the extended family, neighbors and education workers. Placing responsibility for unavailable resources within families, neighborhoods and local schools in this way implies potential for changing the schools locally.

Parents' conceptualization of inclusion potentially focuses on underutilized, existing school and community resources to change the schools, and therefore, influence inclusion by better serving

individual children with disabilities. This contrasts with placing responsibility for unavailable resources on government, which results in an external locus of control that does not promote local self-help activities for inclusion of children with disabilities. The professionals focused on how unavailable resources decrease the quantity of children served from external resources, while parents focused on local resources that were not being utilized to improve the quality of service to the individual child with a disability. Since most of the parents who participated in the current study were the biological parents of children with disabilities, they were interested in the actual outcomes for their individual child rather than increasing numbers of hypothetical children with disabilities.

Conclusion

The current study revealed that disability-friendly commercial resources were unavailable and this negatively influenced the inclusion of children with disabilities who were unable to freely participate in play activities and so were isolated to a large extent in ECD centers in schools. This is despite freely available indigenous resources that were not utilized as inclusive supports in schools but were being successfully utilized in informal, home-based play situations. There would therefore appear to be a case for increasing awareness of the value of locally available resources and empowering teachers to use them in order to generally adopt a heritage-based model of inclusive education. It is critical to empower teachers to view locally available resources as the main, necessary resources rather than as back-up needed for inclusive education. Improved awareness of government budgetary allocations would also be needed in order to increase uptake by centers enrolling children with various disabilities. An increased uptake of available government funding would improve availability of assistive devices and other play materials in schools.

The study recommends that government budgets for and provides disability-friendly resources to all primary schools so as to accommodate learners with disabilities in inclusive schools. Learners with disabilities have more needs than non-disabled peers and, therefore, require more resources which government and other stakeholders need to provide to avoid punishing parents of children with disabilities by requiring them to foot the bills for the additional resources. It is also very important for schools to identify locally available resources which can be adapted to become disability-friendly to facilitate inclusive education. There is also a need for schools to devise ways of monitoring and supervising the utilization of resources that would have been provided for children with disabilities in order to ensure efficient use and therefore inclusion at ECD level in primary schools.

References

- Adeniyi, S. O., Owolabi, J. O. & Olojede, K. (2015). Determinants of successful Education practice in Lagos State Nigeria. *World Journal of Education*, 5, (2), 26- 32.
- Adewumi, T. M. (2019). Experiences of teachers in implementing inclusion of learners with special educational needs in selected Fort Beaumont Primary schools, *Cogent Education*, 6(1) 34-46.
- Anderson, A. (2019). *Inclusive classrooms: Looking at Special Education Today*. London: Sage.
- Anderson, J. & Boyle, C. (2017). *Inclusive Education in Australia: Rhetoric, reality, and the*

- road ahead. *Support for learning*, 30 (1) 4-22.
- Brann-Barrett, M. T. (2015). What do you mean? An educational researcher's reflections regarding 'rural' when rural is home. *International Journal of Inclusive Education*, 19 (7), 759 – 769.
- Brooke, M. (2013). *Which Research Paradigm for TESOL?* London: Academy Publisher.
- Chakrabort-Ghosh, S. (2017). Inclusive Education in India: A Developmental milestone from segregation to inclusion. *Journal of Educational Systems*. 1(1), 53-62.
- Chavuta, A., Itimu-Phiri, A. N., Chiwaya, S., Sikero, N. & Alindiamao, G. (2008). *Shire Highlands Education division-Malawi baseline study report*. Leonard Cheshire.
- Cheuk, J. & Hatch, J.S. (2007). Teachers' Perceptions of Integrated Kindergarten Programs in Hong Kong. *Early Child Development and Care*, 177(4): 417-432 DOI :10.1080/03004430600563430
- Chimedza, R. (2008). Disability and Inclusive Education in Zimbabwe. In L. Barton & F. Armstrong (Eds), *Police Experience and change: Cross cultural reflections on Inclusive Education*. London: Springer.
- Chimhenga, S. (2016). Resource material barriers: The challenge of implementing inclusive education in primary schools of Zimbabwe. *Global Journal of Advanced Research*, 3(6), 526-532.
- Chireshe, R. (2013). The State of Inclusive Education in Zimbabwe: Bachelor of Education (Special Needs Education) Student's perceptions. *Journal of Social Sciences*, 34(3), 223-228.
- Cloke, P. (2006). Conceptualizing Rurality. In P. Cloke, T. Madsen & P. Mooney (Eds). *Handbook of Rural Studies*, 18 – 28. New York: Sage.
- Corbett, M. & White, S. (2014). *Introduction to Doing Educational Research in Rural Settings: Methodological Issues, International Perspectives and Practical Solutions*. London: Routledge.
- Creswell, J.W. (2007). *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative research*. New York: Merrill Prentice Hall.
- Creswell, J. W. & Plano Clark, V. (2013). *Designing and Conducting Mixed Methods Research*. New York: SAGE.
- Daane, C.J., Beirne-Smith, M & Lathan, D. (2000). Administrators' and Teachers' perceptions of the collaborative efforts of inclusion in the elementary grades. *Education*, 121(2): 331-N338.
- Dart, G. (2007). Inclusive Education in Botswana. In P. Engelbrecht & L. Green (Eds). *Responding to challenges of Inclusive Education in Southern Africa*. Cape Town: Van Schaik.
- Deng, M. & Poon-McBrayer, K. F. (2004). Inclusive Education in China: Conceptualisation and Realisation. *International Journal of Special Education*, 30(3) 151-160.
- Department of Education, (2011). *Education white Paper 6- Special Education: Building on Inclusive Education and Training*. POE.
- Eloff, I. & Kqwete, L. K. (2007). *South African Teachers' Voices on Support in Inclusive Education*. <http://www.thefreelibrary.com/South+Afri+can+teachers+voices+on+support+in+inclusive+education-a0168163366> Accessed 17 May 2020.
- Forlin, C. L. (2010). Inclusive Education Practices: A way forward for Hong Kong. *Chinese Education and Society* 40(4), 63-75.
- Griffiths, M. (2020). These Days are Ours: Young Disabled people's Experiences of

- Activism and participation in social movements. In M. Berghs, T. Chataika, Y.El-Lahib & K. Dube (Eds). *The Routledge Handbook of Disability Activism*. London: Routledge.
- Grimes, P. (2010). The Lao PDR Inclusive Education Project 1993-2009: Reflections on the impact of a national project aiming to support the inclusion of disabled students. *International Journal of Inclusive Education*, 15(10), 1135-1152.
- Gronlund, A., Lim, N. & Larsson, H. (2010). Effective use of assistive Technologies for inclusive Education in Developing countries: Issues and challenges from two case studies. *International Journal of Education and Development Using Information and Communication Technology (IJEDICT)*, 6 (4), 5-26.
- Halfacree, K. (2006). Landscapes of rurality: rural others/other rurals. In I. Robertson & P. Richarchs (Eds). *Studying Cultural Landscapes*, 141 – 164. Oxford: Oxford University Press.
- Hayes, A. M. & Bulat, J. (2017). *Disabilities Inclusive Education Systems and Policies Guide for Low and Middle-Income Countries*. London: RTI Press.
- Johnstone, C. J. (2007). Inclusive Education in Lesotho. In P. Engelbrecht & L. Green (Eds). *Responding to the Challenges of Inclusive Education in Southern Africa*, 82 – 105. Cape Town: Van Schaik.
- Leddy, G.J. (2015). *Inclusive Education in Sweden: Provisions for children who have special Educational needs with a specific focus on Down's syndrome*. Unpublished Research project. Department of Education, Linnaeus University.
- Limaye, S. (2016). Factors influencing the accessibility of education for children with disabilities in India. *Global Education Review* 3(3), 43-56.
- Majoko, T. (2016). Inclusion in Early Childhood Education: Pre-service Teachers' Voices, *Early Child Development and Care*, 186: 11, 1859-1872, DOI 10.1080/03004430.2015.1137000.
- Mathiyazhagan, T. & Nandan, D. (2010). Survey Research Method. *Media*, (2), 12-44.
- Mbibeh, L. (2013). Implementing Inclusive Education in Cameroon: Evidence from the Cameroon Baptist Convention Health Board. *International Journal of Education* 5(1), 52-68.
- McMillan, J.H. and Schumacher, S. (2010). *Research in Education. Evidence- Based Inquiry*. New York, NY: Pearson.
- Miles, M.B. & Huberman, A.M. (1994). *Qualitative Data Analysis*. London. SAGE Publishers.
- Mkabela, Q. (2005). Using the Afrocentric method in researching indigenous African culture. *Qualitative Report*, 10(1), 178–189.
- Moberg, S. (2000). Education for all in the North and the South: Teachers' Attitudes towards Inclusive Education in Finland and Zambia, *Education and training in Developmental Disabilities*, 38(4), 417-428.
- Mokaleng, M. (2019). *Factors Affecting the Implementation of Inclusive Education Practices in Selected secondary schools of the Omahake Region*. Namibia, M. Ed Dissertation, University of Namibia.
- Morse, J. M. (1991). Strategies for sampling. In J. M. Morse (Ed). *Qualitative Nursing Research: A Contemporary Dialogue* (127 – 146). New York: Sage.
- Mpofu, E., Zindi, F., Oakland, T. Peresuh, M. (1997). School psychology practices in East and Southern Africa: Special Educators' perspectives. *Journal of Special Education*,

- 31:387-402.
- Mpofu, E., Kasayira, J.M., Mhaka, M.M., Chireshe, R. & Maunganidze, L. (2007). Inclusive Education in Zimbabwe. In P. Engelbrecht and L.Green (eds). *Responding to challenges of Inclusive Education in Southern Africa*. Pretoria: Van Schaik.
- Musengi, M. (2019). The place of Sign language in the Inclusive education of deaf learners in Zimbabwe amid CRPD (mis)interpretation. *African Disability Rights Yearbook*, 96-111.
- Musengi, M. & Musengi, E. (2021). Working on the margins in Zimbabwe? The challenges and opportunities of inclusive rural education. In A. Masinire & A. P. Ndofirepi (Eds). *Rurality, Social Justice and Education in Sub Saharan Africa: Theory and Practice in Schools*. New York: Palgrave.
- Musengi, M. & Chireshe, R. (2012). Inclusion of deaf students in mainstream rural primary schools in Zimbabwe: Challenges and opportunities. *Stud Tribes Tribals*, 10(2). 107-116.
- Mushoriwa, T. (2002). A Study of the attitudes of primary school teachers in Harare towards the inclusion of blind children in regular classes. *British Journal of Special Education*, 28(3): 142-147.
- Ntsanwisi, LNK. (2008). *Identification of barriers to learning by grade three teachers in the Ritavi District*. Unpublished PhD Thesis, University of Limpopo.
- Okongo, R.B., Ngao, G., Rop, N. K. & Nyongesa, W. J. (2016). Effect of availability of teaching learning resources on the implementation of inclusive education in preschool centres in Nyamira North Sub-County, Nyamira County, Kenya. *Journal of Education and Practice*, 6(35), 17-35.
- Okoro C. A., Hollies, N.D., Cyrus, A.c. & Griffin- Blake, S. (2018). Prevalence of disability and Healthcare Access by Disability status and type in the US. *MMWR Morbidity and mortality Weekly Report*, 67:882-887.
- Oliva, D.V. (2016). Barriers and resources to learning and participation of inclusive students. *Psicologia USP*, 27 (3), 492-502.
- Omond, S.O. (2016). *Determinants of implementation of inclusive learning in public primary schools in Boro division, Siaya sub -County, Kenya*. M. Ed Dissertation. University of Nairobi, Kenya.
- Owusu-Ansah, F. E., & Mji, G. (2013). African indigenous knowledge and research. *African Journal of Disability*, 2(1), 30–35.
- Owuour, L.O. (2014). *Determinants of inclusion of learners with special needs in public primary schools in Kisumu Municipality, Kisumu County*. M. Ed Dissertation. University of Nairobi, Kenya.
- Palinkas, L. A., Horwitz, S., Green, C. A. & Wisdom, J. P. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and Policy in Mental Health Services Research*, 42, 533 – 544.
- Peter, M.N. & Nderitu, M.N. (2014). Perceptions of teachers and headteachers on the effectiveness of Inclusive Education in public primary schools in Yatta division, Machakos County, *Journal of Educational and Social Research*, 4(1), 91-107.
- Pini, B., Carrington, S. & Adie, L. (2014). Schooling elsewhere: rurality, inclusion and education. *International Journal of Inclusive Education*. DOI: 10.1080/13603116.2014.964489
- Purdue, K. (2009). Barriers to and facilitators of inclusion for children with disabilities in

- early childhood Education. *In Contemporary Issues in early childhood* 10, 2, <http://dx.doi.org./10.2304/c-iec.2009.10.2.133>.
- Rydstrom, H. (2010). Having Learning difficulties: The inclusive Education of disabled girls and boys in Vietnam. *Improving schools*, 13, (1), 81-98.
- Sadek, F. M. & Sadek, R. C. (2000). *Attitudes towards inclusive education in Egypt and implications for teachers' preparation and training*. Paper presented at International Special education Congress 2000, Manchester, UK.
- Sandelowski M. (2010) What's in a name? Qualitative description revisited. *Research in Nursing & Health* 33: 77–84. [[PubMed](#)] [[Google Scholar](#)]
- Schiemer, M. & Proyer, M. (2013). Teaching children with disabilities: ICTs in Bangkok and Addis Ababa. *Multicultural Education and Technology Journal* 7(2/3), 99-112.
- Schoonenboom, J. & Johnson, B. R. (2017). How to Construct a Mixed Methods Research Design. , *KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie* 69(7), 117 – 138.
- Serpell, R. (1999). Social Responsibility as a dimension of Intelligence and as an Educational goal: Insights from pragmatic Research in an African Society *Child Development Perspective*, 5 (2) 126-133.
- Shumba, A. & Taukobong, E. (2009). An Evaluation of policies programs related to children with disabilities in Botswana. *African Education Review*, 6 (1), 123-139.
- Singh, J.D. (2016). Inclusive Education in India-concept need and challenges. *Scholarly Research Journal for Humanities, sciences and English Language* 3 (13) 3222-3232.
- Sukhraj, P. (2008). *The Implementation and Challenges to inclusive Education policy and practice in South Africa*. Retrieved July 20, 2016 from http://icevi.org/publications/icevi_wc2006/09_inclusive_educational_practices/Papers/afr006praveena%20sukhraj.pdf
- Stewart, M. (2020). The Impact of Neoliberal politics on the welfare and survival chronically ill and disabled people. In M. Berghs, T. Chataika, Y. El-Lahib & K. Dube (Eds). *The Routledge Handbook of disability activism*. London: Routledge.
- Stofile, S.Y. & Green, L. (2007). Inclusive Education in South Africa. In P. Engelbrecht and L. Green (Eds). *Responding to the challenges of Inclusive Education in Southern Africa* 52-65. Cape Town: Van Schaik.
- Tatter, G. (2019). Low Students and a Special Education mismatch. *ASCDE Express: Ideas from the Field* 14(25), 45 – 54.
- Tiripath, P.V. (2018). Educating Visually Impaired Learners in India. *Journal of Emerging Technologies and Innovative Research* 5(3). 1313-1316.
- Tshifura, A.R. (2012). *Managing Inclusive education in Primary schools of the Tshinane Circuit in Limpopo Province*. M Ed. Dissertation. University of South Africa, Pretoria.
- UNDP (2021). *The human development index of Zimbabwe*. UNDP.
- Walton, E. (2018). Decolonizing (through) inclusive education? *Educational Research for social change*, 7(3), 1-16.
- Welman, C., Kruger, F. & Mitchell, B. (2005). *Research Methodology*. Cape Town: Oxford University Press.
- Westwood, P. & Graham, L. (2003). Inclusion of students with special needs: Benefits and obstacles as perceived by teachers in New South Wales and South Australia. *Australian Journal of Learning Disabilities* 8, 3-15.

<http://dx.doi.org/10.1080/19404150309546718>

Wiat, L., Kehler, H., Rempel, G. & Tough, S. (2013). Current state of Inclusion of children with special needs in childcare programs in one Canadian province. *International Journal of Inclusive Education*, 18:4, 345-358.

William, R., Henninger, I. V. & Sarika, S. (2014). *First steps to preschool inclusion: how to jumpstart your program-wide plan*. New York: Paul H. Brookes Publishing.

WFP (2023). *World Food Program Annual Country Reports – Zimbabwe 2022*. WFP.

<https://docs.wfp.org/api/documents/WFP-0000148361/download/>

Zhang, K.C. (2011). An Examination of Inclusive Practices in Early Childhood Educational Settings, Hong Kong; *International Journal of Inclusive Education* 15-683-697.

Zimba, R.F., Mowes, A.D. & Naanda, A.N. (2007). Inclusive Education in Namibia. In P. Engelbrecht & L. Green (Eds). *Responding to the challenges of Inclusive Education in Southern Africa*, 39-5. Cape Town: Van Schaik.

About the Author

Dr. Esther Musengi is Matabeleland South Regional Program Coordinator for Disability and Special Needs Education programs at the Zimbabwe Open University (ZOU). She received her BSc and MSc degrees in Special Needs Education from ZOU and M. Ed degree in Special Education from Great Zimbabwe University. She also attained D. Ed in Inclusive Education from the University of South Africa. A teacher of learners with special educational needs since 1992, her research interests are in Inclusive Education, Disability Studies in Education, Deaf Education and rights of Sign Language users. She is contactable at musengier@gmail.com or musengie@zou.ac.zw

Evaluating Special Educators Knowledge of High Leverage Practices: Finding a High-Leverage Rubric

Emily Smith, Ed.D.
University of Alaska Southeast

Pamela Brezenski
Jessica Broderick
Educational Service Unit #13, Nebraska

Dennis Cavitt, Ed.D.
Wood County Special Education, SSA

Abstract

Special Education teachers are often held to the same accountability standards as general education standards when it comes to effective teaching. This can cause frustration and disconnect between professionals and their job description. A set of research-based, high-leverage practices has been developed to provide special education teachers with guidance as to what makes them an effective teacher. While the use of high-leverage practices has been accepted and implemented into many districts for teacher effectiveness, special educators need more systematic methods for evaluating the effectiveness of their practice using high-leverage practices. The purpose of this study was to create a tool for administrators to use in providing direct, content level guidance related to high-leverage practices. The purpose of this study was to create a tool through the use of the recommended high-leverage practices that can be used to adequately evaluate special educators' performance in the classroom and the inclusive setting.

Keywords: special education, high-leverage practices, rubric, teachers, evaluation

Evaluating Special Educators Knowledge of High Leverage Practices: Finding a High-Leverage Rubric

The No Child Left Behind Act (NCLB, 2002) was enacted to improve the educational achievement for all children through the use of scientifically, research-based instructional strategies and challenging academic content. The NCLB Act defines scientifically based research as "research that involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs" (NCLB, 2002, p. 115). According to Brown (2016) evidenced-based has become an important topic in schools, educator professional development, and teacher preparation programs. School leaders need to be very careful when endorsing programs and practices that advertise that they are evidenced based. Their decisions can have lasting effects on student learning outcomes.

McLesky et al (2017) stated, "the roles and practice of special education teachers have continuously evolved as the complexity of struggling learners unfolded, along with the quest for how best to serve and improve outcomes for this diverse group of students" (p. 1). The ability

for school districts to meet the needs of the population of struggling learners is impaired by the historically high shortage of trained special educators (Monnin, Day, Strimmel, & Dye, 2021). The U.S. Department of Education indicated that 49 states and the District of Columbia reported shortages of special educators (2021). Digging deeper into the data, 98% of the schools in the U. S. have reported these shortages. Additionally, teachers are leaving the profession at the same rate that the population of students with disabilities (SWD) are increasing. (National Education Association, 2019). Therefore, providing high quality, evidenced based, training for new and veteran teachers is critical for the profession to meet the unique needs of struggling learners and SWD.

According to McLesky et al (2017) teacher preparation and professional development programs have been charged with providing training for teachers and preservice teacher candidates with evidenced based instructional strategies that will have a positive impact on struggling learners. The Council for Exceptional Children (CEC) and the University of Florida's Collaboration for Effective Educator Development, Accountability, and Reform Center (CEEDAR) approved a proposal in the fall of 2014 to develop a set of High Leverage Practices (HLPs) to support special education teacher candidates. The HLP writing team developed the set of HLPs need to be developed that directly applied to the classroom practices of teachers in the K-12 environment. According to Brownell, Holdheide, Kamman, And McCray (2021) the Office of Special Education Programs (OSEP) funded the development of the HLPs in order to improve accountability and evaluative practices in teacher education. OSEP desired to have the practices to improve and align "state policies (such as licensure and certification, and program approval/review standards) and educator preparation practices for general and special education teachers and school leaders" (p.16). (Brownell, Holdheide, Kamman, And McCray (2021) indicated that OSEP wanted to make sure that special and general education teachers were trained and supported in order to implement research-based instructional strategies. Additionally, school leaders must be prepared to support both general and special educators in meeting the unique needs of struggling learners and SWD.

The HLPs identified by the HLP workgroup from CEC and CEEDAR include 22 practices that K-12 educators can use to teach a variety of different learners. According to McLeskey et al (2017) the 22 practices are incorporated into four components of a teachers practice. These components are: collaboration, assessment, social/emotional/behavioral practices, and instruction.

Collaboration: effective teachers must collaborate with a variety of individuals in order to effectively support a learner's development. "Collaboration allows for varied expertise and perspectives about a student to be shared among those responsible for the student's learning and well-being" (McLesky et al, 2017, p.15). Through collaboration among the various service providers obtain a much more thorough and comprehensive understanding of the student and their unique educational needs. McLesky et al (2017) Continue by stating, "collaborative activities should be focused on (a) designing each student's instructional program to meet clearly specified outcomes and (b) collecting data and monitoring progress toward these outcomes" (p.15). There is a diverse body of research (Francis, Gross, Turnbull, & Turnbull, 2013; Palmer et al., 2019, Shogren, K. A., McCart, A., Lyon, K. J., & Sailor, W, 2015, Shogren, 2012, Young, Morgan, Callow-Heusser, & Lindstrom, 2016) that indicate that building collaborative

relationships between educators, service providers, and families result in positive outcomes for SWD.

The second component identified by the HLP workgroup was Assessment. According to McLeskey et al (2017), “assessment plays a foundational role in special education. Students with disabilities are complex learners who have unique needs that exist alongside their strengths. Effective special education teachers have to fully understand those strengths and needs” (p.41). The CEC Initial Standards list the data-based decision making as a required essential skill for a new or veteran special education teacher (Council for Exceptional Children, 2020), Standard 4: Using Assessment to Understand the Learner and the Learning Environment for Data- based Decision Making:

Candidates assess students’ learning, behavior, and the classroom environment in order to evaluate and support classroom and school-based problem-solving systems of intervention and instruction. Candidates evaluate students to determine their strengths and needs, contribute to students’ eligibility determination, communicate students’ progress, inform short and long-term instructional planning, and make ongoing adjustments to instruction using technology as appropriate. (p. 2)

There has been a strong research base supporting the use of the HLPs in this component Hattie, 2008). McLeskey et al (2017) concluded that:

Establishing a clear, consistent, and positive learning environment serves as the foundation for all other high-leverage practices (HLPs). It increases the likelihood of student academic and social behavior success, it increases educator opportunities to engage in effective instructional practices, and it fosters caring and respectful interactions between educators and students. (p. 57)

McLeskey et al (2017) additionally stated that “the ability to interact with adults and peers and to manage one’s own behavior across settings is essential to student success” (p. 60). Often, SWD do not master these behavioral and social skills the way typically developing children do. Therefore, these HLPs are critical practices in helping SWD acquire and use these vital skills.

The fourth component identified by the HLP workgroup was Instruction. According to McLeskey et al (2017) “teaching students with disabilities is a strategic, flexible, and recursive process as effective special education teachers use content knowledge, pedagogical knowledge (including evidence-based practice), and data on student learning to design, deliver, and evaluate the effectiveness of instruction” (p. 69). Researchers (Fuchs et al, 2015, Moats, 2014, Vaughn, Danielson, Zumetta, & Holdheide, 2015) indicate that teachers, particularly special education teachers often need to successfully instruct prerequisite foundational skills in order for struggling students to successfully mastery grade-level standards.

As with the other components and HLPs, there is strong research supporting the HLPs in the instruction component (e.g. foundational skills: Fuchs et al., 2015; Moats, 2014; Vaughn, Danielson, Zumetta, & Holdheide, 2015; What Works Clearinghouse, 2009a; specific learning goals: Fuchs and Fuchs, 1986, Hattie, 2008; adapting curriculum materials: Konrad, Joseph, & Eveleigh, 2009, Moore & Readence, 1984, Nesbit & Adesope, 2006, Scruggs and Mastropieri,

2000, Moody, Vaughn, & Schumm, 1997; Schumm, Moody, & Vaughn, 2000; Schumm & Vaughn, 1992; Schumm, Vaughn & Saumell, 1992; Teach Cognitive skills: Cook, B. G., & Cook, S. C. 2013; Student engagement: Cornelius-White & Harbaugh, 2010; Jensen, 2013; Assistive and Instructional Technologies: Okolo & Bouck, 2007, Israel et al., 2014; Smith & Okolo, 2010; Intensive Instruction: Fuchs, Fuchs & Vaughn, 2014; Vaughn et al., 2012; Generalizing skills: Falcomata and Wacker, 2013, Mesmer, Duhon, and Dodson, 2007; Constructive Feedback: Hattie & Timperley, 2007; Thurlings et al., 2013).

The research supporting the development and use of HLPs is broad and deep. HLPs have been used successfully in the training of new teachers who will work with SWD. In addition, using the HLPs in professional development activities in order to support current educational professionals who work with SWD is highly supported. Therefore, the use of a tool to measure successful implementation of HLPs would also be beneficial to teachers of SWD. The purpose of this research project was to create a tool that can be used to adequately evaluate special educators' classroom performance through the use of the recommended HLPs.

The research questions for the project are as follows:

1. What are the perceptions of the local ESU special education professionals and administrators related to using the HLP Rubric and content as an evaluation or goal setting tool?
2. What are effective methods for ESU administrators to build background knowledge related to the high-leverage practices in special education prior to the rubric tool use?
3. Is the proposed rubric an effective evaluative tool that can be used to measure the performance of special educators?
4. How do teachers rate themselves using an HLP rubric before and after training on HLPs?
5. What do practicing teachers identify as imperative to special education teacher specific evaluation?

Participants. Purposeful sampling was selected for this study to examine effectiveness of the HLP Rubric on Special Education professionals. For the purpose of rubric evaluation, the team chose to focus on special education professionals evaluated and developed by the local serving ESU or local ESU districts. This allowed us to sample a group of individuals who have background knowledge in special education terminology and content.

All special education administrators, special education professionals and related service providers within the local ESU service area were invited to attend and participate. 19 professionals voluntarily took part in the study and consented to study protocols. Service providers and Regional Consultants were asked to participate and included in the sample since they are evaluated by the local ESU on a special education evaluation process.

Table 1
Number of school contracted participants

Special Education Directors/Administrators	2
6-12 Secondary Special Education Teachers	5
K-5 Elementary Special Education Teachers	6
<i>Service Providers-Contracted from Local ESU</i>	
Occupational Therapist	1
Transition Coordinator	1
<i>Regional Consultants-Contracted through Local ESU</i>	
NE ASD Specialists	2
NE MTSS Regional Team	2

Participants provided input through surveys, online data collection tools and group discussions.

Method. This mix-methods study began with researchers creating the HLP rubric during the 2019-2020 school year. The implementation of the rubric was completed during the 2020-2021 school year. The local ESU provided a hybrid model professional learning opportunity to all 21 districts. At the time of this study, the CEEDAR Center had not released their Self Evaluation rubric. During the study and publishing time, this document was created. Data was triangulated from a 3-phase process.

- 1) Pre and Post Survey
- 2) Participant Google Folder Information and Interaction
- 3) Online Discussion Platforms and Zoom Discussion Session Recordings

Quantitative data analysis from the pre and post survey took place in the following method:

The qualitative data analysis process was completed through an inductive approach with evaluation of the online discussion forums and recordings of discussions. Thematic coding took place on both the online information formats and the Recordings. The researchers read online information for and listened and documented common themes or ideas which allowed them to organize categories. Themes emerged that aligned to the HLPs content areas.

- 1) Collaboration
- 2) Assessment
- 3) Social Emotional Behavioral Learning
- 4) Instruction

This process included multiple sets of data and to increase credibility of the data, triangulation of data was conducted by multiple researchers and theoretical evaluation. Multiple evaluators

listened to the recordings and reviewed the online discussion platforms. Each identified emerging themes and key data elements. Themes each researcher identified then were compared and identified as matching.

Setting. Data collection took place in a Midwestern State's local Educational Service Unit, ESU, boundaries. Populations within the region are small with 21 school districts of which 19 being considered Frontier or Rural. The local area supported by the Educational Service Unit includes 14,000 square miles (Local ESU, n.d.). Electronic methods to deliver professional development are preferred with travel to the local training site taking up to two hours each way. Distance limits attendance in in-person training. For this reason, the method chosen to provide PD related to the HLPs was through a distance, virtual book study through the use of Google Drive and Zoom platforms. It is important to note that the local setting did experience "at home" work during the COVID Pandemic during the first months of the study.

Procedures

The research process consisted of three phases: Pre-study, Professional Development and Growth, and Post-evaluation.

Pre-study. Researchers worked together to create the detailed rubric tool. This tool provided enough detail to allow for guidance for administrators and self-reflection for participants. Resources from the CEEDAR Center's HLP website were used in the development. An email was sent to all participants in the local ESU area. Any individual working as a special education professional or administrator was invited to participate. Participants were provided with a 30 minutes session detailing the participation requirements. All participants joined in a Zoom Session to review the process. They were instructed to complete pre-study activities prior to the Virtual Book Study. Anonymous folders were created to organize participant materials. Pre-study activities consisted of two main activities.

- 1) Participants attended an informational/learning session related to the process and study procedures.
- 2) Completion of the study agreement was sent via Adobe Sign and Fill.

Participants had the ability to revoke participation at any time during the study. Participants agreed through an electronic consent form using the Adobe Sign and Fill program to participate. As a participant, individuals agreed to:

1. Connecting with high-leverage practice learning materials
2. Developing goals and reflecting throughout the process
3. Meeting on Zoom to discuss each content area
4. Completing a pre and post survey

Upon agreement to participate, participants used their online folder to complete the following pre-data collection activities:

1. Individuals completed a self-evaluation of their skills relating to the HLPs using the study created through the HLP rubric.
2. Participants reflected on their self-evaluation and used an individualized goal setting process.
3. Participants completed the pre-survey related to their previous interaction and knowledge level with high leverage practices

Professional Development and Growth

Virtual Book Study. Once each individual had completed the study pre-reflection activities, they received the virtual professional development/book study information. The virtual book study was organized using information from the CEEDAR Center. The virtual professional development included: a weekly lesson focus, objective, resources and reading materials, activities to be completed, and meeting date/time and link. Each session used a flipped model of instruction. Participants were asked to pre-read related sections of the CEEDAR Center online book, watch HLP videos from the CEEDAR Center and set goals and questions for the online learning session. The content included the following components:

1. Community Discussion 1: Introduction to the High Leverage Practices
2. Community Discussion 2: Getting to Know the High Leverage Practices
3. Community Discussion 3: Examination into the HLP of Collaboration
4. Community Discussion 4: Examination into the HLP of Assessments
5. Community Discussion 5: Examination into the HLP of Social Emotional Behavioral
6. Community Discussion 6: Examination into the HLP of Instruction and Conclusion of the Book Study

Collaborative discussion. Interaction with the material took place in two ways:

1. Online learning sessions were scheduled and recorded in case participants could not attend and for data purposes. Researchers built a list of guiding questions to begin the conversation. Participants joined the discussion by responding to prompts.
2. Online discussion occurred anonymously via electronic means in a discussion-board format. ESU researchers prepared discussion questions based on each area of high-leverage practice and content from online discussion boards. Researchers kept narrative data of discussion topics during hybrid sessions.

Post Evaluation. The Post evaluation process included three main components:

- 1) Quantitative
 - a) A Quantitative post evaluation was sent to all participants to identify
 - i) Their knowledge and understanding of HLPs
 - ii) Perceptions related to using the HLP rubric as an evaluation tool
- 2) Qualitative
 - a) Data was analyzed from online folder storage methods related to:
 - i) Completed reflection plan for each participant

- ii) Online discussion board questions and reflections
- iii) Recordings of the online sessions and reflections

All data were put into place to ensure that protection of participants took place. Educationally licensed and protected Google folders. All materials were placed within the folders with only a numeric identifier of the participant. Participant folders included a copy of group norms and expectations; an outline of anticipated readings, discussions, extension materials, and meetings dates; a copy of the HLP rubric on which participants could rate themselves; an organizational guide graphic organizer to assist participants in taking notes during learning; and a template to support the participant setting his/her professional development goal for the book study.

Discussion

The goal of the study was to create a tool that can be used to adequately evaluate special educators' and related providers' classroom performance through the use of the recommended high-leverage practices. This study sought to examine the perceptions of special education professionals related to using a HLP rubric for evaluation of professional standards. Likert scale data and from the pre and post survey were analyzed for themes. Qualitative data from recorded conversations and the online discussion board were analyzed through the constant comparative method. The findings of this study indicate that the proposed rubric is an effective tool that can be used to measure the performance of special educators or as a professional self-evaluation and portion of the staff support process.

Participants noted that professional development related to the High Leverage Practices was imperative to understanding rubric components. They also noted significant growth related to their understanding of the High Leverage Practices through a systematic development planning process. Growth was presented from surveys to identify that Special Educator confidence in using the High Leverage Practices increased when presented with rubric self-evaluation and development opportunities as noted from the mean increase of 4.45 to 8.0 on a 10 point Likert scale.

Practicing teachers who participated in this study identified that the self-reflection opportunities (rubric pre evaluation, goal setting, discussions, and post evaluation) throughout the survey and development process allowed them to reflect on their personal implementation of Special Education processes. Through coding of qualitative data, research identified that reflection themes focused around collaboration, assessment, behavioral support and instructional strategies and instruction. This was not surprising as the online virtual study focused on specific HLP elements. Additionally, training on the rubric components were noted as critical as data demonstrated by a mean growth of 3.64 related to the confidence in completing the self-evaluation rubric.

Limitations

Findings should be interpreted with several limitations in mind. First, this study was conducted with one, rural, education region in a mid-western state, therefore, results may not generalize to other states. Second, teachers who participated in the study did so on a voluntary basis, creating a

preconceived interest in the use of the rubric. This research provided an introductory opportunity to explore a HLP rubric which could be used for evaluation purposes. While the teachers feel that the HLPs can impact their practice, a limited number of administrators participated. Finally, this study was conducted online, which may have limited researchers' ability to gauge participant full body language and limited them to facial cues which may have made the understanding of participants hard to gauge. If teachers were not able to join, they were provided with recorded materials; however, these were not provided on a platform that allowed researchers to track views or time spent on recordings. Utilizing a different platform for recorded information may be beneficial for future research.

Implications for Practice

The survey results could indicate that in order to use the created HLP evaluation rubric as an evaluation or professional growth tool, acclimation to the HLPs and rubric content may prove beneficial. Teacher growth within the understanding of HLP content was impacted by the virtual book study. Discussions demonstrated that the rubric could assist teachers in drawing a connection from their practice to Evidence Based Practices.

In addition, the results could indicate that the HLP evaluation rubric helped the professionals to grow in their practice. Data identified the HLP rubric could lead to effective professional goal setting within the school setting. Reflection demonstrated from the participants reflected changes to practice and procedure. It is also possible that the HLP evaluation rubric be connected to teachers' Professional Learning Plan as a guide. This could indicate areas in which administrators support and plan effective professional development for Special Education teachers. An unintended implementation arose from impacts to the COVID Pandemic shut down. Developing online instructional methods allowed all participants to continue growth during times of shut downs and limited in person meetings. Despite the fact that online book study occurred during limited opportunities for physical gathering, participants interacted with one another through an organized format.

Implications for Future Research

This study raises several questions to investigate in the future. First, conducting a study utilizing a Rausch modeling technique to compare data and assess the rubric's capacity to truly measure special educator performance. Second, conducting an observational research study using the rubric would strengthen the data already collected by showing the validity of the rubric. Finally, research on the validity and reliability of the HLP rubric including both practicing and preservice teachers who serve students in the inclusive setting as well as in special education classrooms should be conducted.

References

Brown, R. (2016) *What is evidenced-based instruction*. Illuminate education.
<https://www.illuminateed.com/blog/2016/08/what-is-evidence-based-instruction/#:~:text=Evidence%2Dbased%20instruction%20includes%20materials,or%20more%20experimental%20research%20studies>.

- Brownell, M. T., Lauterbach, A. A., Dingle, M. P., Boardman, A. G., Urbach, J. E., Leko, M., ... Park, Y. (2014). Individual and contextual factors influencing special education teacher learning in Literacy Learning Cohorts. *Learning Disabilities Quarterly*, 34, 31–44. <https://doi.org/doi:10.1177/0731948713487179>
- Brownell, M. T., Ciullo, S., & Kennedy, M. J. (Winter 2020-2021). High-leverage practices: Teaching students with disabilities and all students who need a learning boost. *American educator*. 44(4), 12-18
- Brownell, M. T., Holdheide, L., Kamman, M. L., & McCray, E. D. (Winter 2020-2021). Systemic support for special education: Making it a more integral part of general teacher preparation. *American educator*. 44(4), 18-19.
- Caffrey, E., Fuchs, D., & Fuchs, L. S. (2008). The predictive validity of dynamic assessment: A review. *The Journal of Special Education*, 41, 254–270. <https://doi.org/doi:10.1177/0022466907310366>
- Cook, B. G., & Cook, S. C. (2013). Unraveling evidence-based practices in special education. *The Journal of Special Education*, 47, 71–82. <https://doi.org/doi:10.1177/0022466911420877>
- Council for Exceptional Children (2021, August, 1). *Professional preparation standards*. CEC. <https://exceptionalchildren.org/professional-preparation-standards>.
- Cornelius-White, J. & Harbaugh, A. (2010). *Learner-centered instruction: Building relationships for student success*. Los Angeles, CA: SAGE.
- Falcomata, T. S., & Wacker, D. P. (2013). On the use of strategies for programming generalization during functional communication training: A review of the literature. *Journal of Developmental and Physical Disabilities*, 25, 5–15. <https://doi.org/doi:10.1007/s10882-012-9311-3>
- Francis, G. L., Gross, J. M. S., Turnbull, A. P., & Turnbull, H. R. (2013). The Family Employment Awareness Training (FEAT): A mixed-method follow-up. *Journal of Vocational Rehabilitation*, 39, 167–181.
- Fuchs, D., Fuchs, L. S., & Vaughn, S. (2014). What is intensive instruction and why is it important? *TEACHING Exceptional Children*, 46(4), 13–18. <https://doi.org/doi:10.1177/0040059914522966>
- Fuchs, L. S., Fuchs, D., Compton, D.L., Wehby, J., Schumacher, R. F., Gersten, R., & Jordan, N.C. (2015). Inclusion versus specialized intervention for very low- performing students: What does access mean in an era of academic challenge? *Exceptional Children*, 81, 134–157. <https://doi.org/doi:10.1177/0014402914551743>
- Hattie, J. A. C. (2008). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. New York, NY: Routledge.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77, 81–112.
- Israel, M., Marino, M., Desilio, L., & Serianni, B. (2014, September). Supporting content learning through technology for K-12 students with disabilities (CEEDAR Document No. IC10). Retrieved from http://ceedar.education.ufl.edu/wp-content/uploads/2014/09/IC-10_FINAL_09-10-14.pdf
- Jensen, E. (2013). *Engaging students with poverty in mind: Practical strategies for raising achievement*. Alexandria, VA: ASCD.
- Konrad, M., Joseph, L. M., & Eveleigh, E. (2009). A meta-analytic review of guided notes.

- Education and Treatment of Children*, 32, 421–444. <https://doi.org/doi:10.1353/etc.0.0066>
- McLeskey, J., Barringer, M. D., Billingsly, B., Brownell, M., Jackson, D., Kennedy, M., Lewis, T., Maheady, L., Rodriguez, J., Scheeler, M. C., Winn, J., & Ziegler, D. (2017). High-leverage practices in special education. Council for Exceptional Children & CEEDAR Center.
- Mesmer, E. M., Duhon, G. J., & Dodson, K. (2007). The effects of programming common stimuli for enhancing stimulus generalization of academic behavior. *Journal of Applied Behavior Analysis*, 40, 553–557. <https://doi.org/doi:10.1177/1540796915586191doi:10.1901/jaba.2007.40-553>
- Moats, L. (2014, April 3). When older kids can't read: What does the newest research say? [Webinar]. Retrieved from <https://voyagersopris.wistia.com/medias/2gabrx8srf>
- Moore, D. W., & Readence, J. E. (1984). A quantitative and qualitative review of graphic organizer research. *Journal of Educational Research*, 78(1), 11–17.
- Nesbit, J. C., & Adesope, O. O. (2006). Learning with concepts and knowledge maps: A meta analysis. *Review of Educational Research*, 76, 413–448. <https://doi.org/doi:10.1177/1540796915586191doi:10.3102/00346543076003413>
- No Child Left Behind Act of 2001(2002)., Pub. I, No. 107-110, 115 Stat. 1425.
- Okolo, C. M., & Bouck, E. C. (2007). Research about assistive technology: 2000–2006. What have we learned? *Journal of Special Education Technology*, 22, 19–33.
- Overton, T. (2015). Assessing learners with special needs. Pearson.
- Palmer, S. B., Fleming, K. K., Summers, J.A., Erwin, E.J., Maude, S. P., Brotherson, M.J., Stroup-Rentier, V., Haines, S.J., Zheng, Y. Z., Peck, N. F., & Wu, H. (2019). Foundations for self-determination in early childhood: Preliminary preschool study. *Advances in Neurodevelopment Disorders*. 3(2), 188-196. <https://doi.org/doi:10.1177/1540796915586191doi:10.1007/s41252-019-00106-0>
- Schumm, J. S., Moody, S. W., & Vaughn, S. (2000). Grouping for reading instruction: Does one size fit all? *Journal of Learning Disabilities*, 33, 477–488. <https://doi.org/doi:10.1177/1540796915586191doi:10.1177/002221940003300508>
- Schumm, J. S., & Vaughn, S. (1992). Planning for mainstreamed special education students: Perceptions of general education students. *Exceptionality*, 3, 81–98. <https://doi.org/doi:10.1177/1540796915586191doi:10.1080/09362839209524799>
- Schumm, J. S., Vaughn, S., & Saumell, L. (1992). What teachers do when the textbook is tough: Students speak out. *Journal of Reading Behavior*, 24, 481–503. <https://doi.org/doi:10.1177/1540796915586191doi:10.1080/10862969209547792>
- Scruggs, T. E., & Mastropieri, M. A. (1989). Mnemonic instruction of LD students: A field based evaluation. *Learning Disability Quarterly*, 12, 119–125. doi:10.2307/1510727
- Shogren, K. A. (2012). Hispanic mothers' perceptions of self-determination. *Research and Practice for Persons with Severe Disabilities*, 37, 170–184. <https://doi.org/doi:10.2511/027494812804153561>
- Shogren, K. A., McCart, A., Lyon, K. J., & Sailor, W. (2015). All means all: Building knowledge for inclusive schoolwide transformation. *Research and Practice for Persons with Severe Disabilities*, 40, 173–191. <https://doi.org/doi:10.1177/1540796915586191>
- Smith, S. J., & Okolo, C. (2010). Response to intervention and evidence-based practices: Where does technology fit? *Learning Disability Quarterly*, 33, 257–272. doi:10.1177/073194871003300404

- Thurlings, M., Vermeulen, M., Bastiaens, T., & Stijnen, S. (2013). Understanding feedback: A learning theory perspective. *Educational Research Review*, 9, 1–15.
doi:10.1016/j.edurev.2012.11.004
- Vaughn, S., Wanzek, J., Murray, C. S., & Roberts, G. (2012). *Intensive interventions for students struggling in reading and mathematics: A practice guide*. Portsmouth, NH: RMC Research Corporation, Center on Instruction. Retrieved from <http://files.eric.ed.gov/fulltext/ED531907.pdf>
- Vaughn, S., Danielson, L., Zumetta, R., & Holdheide, L. (2015, August). *Deeper learning for students with disabilities* (Deeper Learning Research Series). Boston, MA: Jobs for the Future.
- What Works Clearinghouse. (2009a, February). *Assisting students struggling in reading: Response to intervention (RtI) and multi-tier intervention in the primary grades* (NCEE 2009-4045). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/rti_reading_pg_021809.pdf
- Young, J., Morgan, R. L., Callow-Heusser, C. A., & Lindstrom, L. (2016). The effects of parent training on knowledge of transition services for students with Disabilities. *Career Development and Transition for Exceptional Individuals*, 39, 79–87.
doi:10.1177/2165143414549207

About the Authors

Emily Smith, Ed.D., is currently an Associate Professor at the University of Alaska Southeast where she teaches special education courses to graduate and undergraduate students. Dr. Smith is a former public school teacher, educational diagnostician and special education supervisor. She has spent over 20 years working in the public and private school sector with students with disabilities as well as gifts and talents. Her research interests include various areas of special education, teacher assessment and post-secondary transition.

Pamela Brezenski is currently serving as a Special Education Project Manager with Educational Service Unit #13. Her current project is Get SET Nebraska, an OSEP funded special education retention grant. Her previous experience includes working as a Special Education Administrator, Transition Coordinator, K-21 Special Education Teacher, and an Elementary Education Teacher. She maintains a strong interest in mentoring new special education teachers, inclusive practice/universal design for learning information dissemination and high-leverage practices in special education.

Jessica Broderick is the Director of Special Education at Educational Service Unit 13 in Scottsbluff, Nebraska. Jessica has worked as a speech-language pathologist serving students birth-21 through traditional speech therapy and augmentative alternative communication (AAC) consultation and collaboration. She has also served as ESU 13's secondary transition specialist and special education program coordinator.

Dennis Cavitt, Ed.D., LSSP. Dr. Cavitt is a School Psychologist for a special education co-Op in East Texas. He has 40 years of experience in the field of special education, including 18 years in Higher Education training preservice teachers and educational diagnosticians where he

provided training on the High Leverage Practices. Dr. Cavitt is very involved in the Council for Exceptional Children (CEC) at the state and international level. He has served as a board member and president for both.

Supporting Children Experiencing Social and Emotional Needs Who are Identified By School Staff as At Risk of Exclusion Due to Disruptive Classroom Behavior

Robert White, PhD
Elizabeth City State University, USA & University of Glasgow, UK

Abstract

The positive promotion of social and emotional wellbeing in schools can be seen as a means to lessen the impact of social difficulties and behavioral problems on educational engagement. This study employed a multicomponent, whole school approach to promoting positive social and emotional wellbeing. School personnel identified nine primary Key Stage 2 pupils (ages 8 – 10) who were at risk of exclusion due to their disruptive and aggressive behavior. These pupils attended five maintained primary schools located across England. Following analysis of four baseline data points for stability, the Building Schools of Character (BSC) program was commenced. During this period, classroom observations were conducted weekly over the course of one academic school year. All pupils showed a marked decrease in disruptive behavior and were no longer considered at risk of exclusion by staff. These findings suggest a whole school positive social and emotional development approach can decrease disruptive behavior in the classroom.

Keywords: Character Education, Special Educational Needs, Anti-social Behavior, Emotional Wellbeing, Inclusive Practice

Supporting children experiencing social and emotional needs who are identified by school staff as at risk of exclusion due to disruptive classroom behavior

Background

The education system is continuously under scrutiny on whether there is enough support to promote children's social and emotional wellbeing (Smith, 2015). A significant amount of research links poor mental health with poor educational outcomes. The UK in particular has a low international ranking for child wellbeing and increased statistical probability of early drop-out in education (Cornaglia, Crivellario and McNally, 2012, 2017, 2018, 2019). Furthermore, approximately 10% of school-aged children in the UK who have a significant mental health difficulty require assessment and possible intervention (Green, McGinnity, Meltzer, Ford and Goodman, 2005). Kim-Cohen and colleagues (2003) state nearly 8000 children and young people suffer from severe depression, and over half of all adults with mental health problems were diagnosed in childhood. Moreover, less than half of these were treated appropriately at the time (Kim-Cohen, et al., 2017). Research indicates that the peak age for mental health problems occurs in adolescence. Therefore, targeted mental health support in childhood is seen as essential to prevent lifelong consequences in areas that include educational achievements, employment, relationships, income and substance use (Eisenberg, Golberstein and Hunt, 2009; Eisenberg, Hunt, Speer, 2013; Mental Health organization, 2014).

However, if vulnerable pupils are not actively acculturated into a cooperative learning environment schools will continue to struggle to meet their needs. According to a Department

for Education survey 71% of teachers and 62% of support staff state that low level classroom disruption is most disruptive to pupil learning (DFE, 2012). Often this on-going disruptive behavior left unaddressed escalates to more challenging behaviors that leads to marginalization and eventual exclusion of pupils who struggle with social, emotional and mental health needs (NICE, 2021). Thus, compounding the challenges these pupils face and undermining their mental health and wellbeing.

The long-term consequences of not meeting social, emotional and mental health needs of vulnerable pupils with early intervention expose the complex cyclical relations between mental health, socio-economic deprivation, anti-social behavior and low educational attainment (Shneiders et al., 2003). While some pupils are able to defy statistical trends, it has been widely reported that school pupils from socially and economically deprived communities are more likely to suffer from mental and social health issues (DfE, 2012; DfE, 2021). There is also a correlation between indicators of social deprivation and antisocial behavior in the classroom and a relationship between such behavior and a risk of a failure to reach expected attainment at school also exists (Strand, 2015). The latter can also result in further social, emotional and behavioral challenges (Strand, 2015; DfE, 2021).

It is argued here that formal educational contexts such as schools are best placed to recognize and attempt to disrupt the cyclical inter-relations between school marginalization, exclusion and poor life outcomes. The positive promotion of social and emotional wellbeing in schools can, consequently, be seen as a means to lessen the impact on mental health difficulties and behavioral problems on educational attainment (NICE, 2013). The inclusion agenda within the UK education system obligates schools and teachers to reduce exclusion of all pupils, including those that demonstrate behavioral difficulties. This has led to localized responses placing pressure on schools and individual teachers to create strategies for all pupils to be educated in the same classroom environment, without necessarily providing the required training or resources to meet the diverse needs of all pupils. This is not as simple as it might seem as there is often a trend for the individual to be problematized rather than the system. As a consequence, strategies can result in reactive approaches that can move away from inclusion in its broadest sense (Vostanis *et al.*, 2013).

From their survey of primary and secondary schools Vostanis and Humphrey (2021) report a common trend of reactive strategies that individualize pupils' particular mental health problems. This pathogenic deficit approach focuses on resources for support, problematizes the individual child and is reflected in identified barriers which create issues in supporting such children. These barriers include poor understanding of individual roles, tensions in priorities and the need for increased professional support (Hackett, *et al.*, 2010; Vostanis and Humphrey, 2021). This moves attention away from more universal consideration of promoting social and emotional wellbeing and mental health in all children.

The inability to provide support to children engaging in anti-social behavior in childhood not only has consequences for individual life outcomes, but also has a financial impact on a range of supporting agencies. According to Scott *et al.* (2001) a greater focus on prevention has the potential to be more cost effective than reactive approaches. Stoiber and Gettinger (2020) argue as the numbers of children presenting problematic behaviors in schools grows, teachers voice

concerns of being unprepared to address their pupils mental health needs. According to Hayes (2002) school-based intervention should not only aim to address individual issues but also be proactive in improving the general mental health climate within the school. Using longitudinal data, Durlack, et al. (2011) reports that intervention programs which teach social and emotional learning demonstrate significant improvement in pupils' mental well-being in addition to improved behavior and academic performance. However, programs which target specific pupils have been reported to stigmatize and label and thus whole-school approaches are a preferred intervention strategy (Mowat, 2015). As McEvoy and Welker (2000) argue antisocial behavior and academic failure should not be treated as separate issues but as context specific. It is by modifying the context that both issues can be addressed.

Research aims

Considering the above, this study investigated the efficacy of a multicomponent whole school approach designed to promote positive social and emotional wellbeing, as a means to address anti-social behavior and its impact on school inclusion and academic attainment. The aim being to determine if a school wide preventative program can reduce disruptive behavior in the classroom.

Research Question

Can teaching a school wide character education program decrease disruptive behavior in the classroom of pupils placed at risk of exclusion and on the Special Educational Needs Register for social, emotional and mental health needs?

Methods

Participants

School personnel selected nine primary Key Stage 2 pupils who were at risk of exclusion because of their disruptive and aggressive behavior. All pupils attended five maintained primary schools located in England who were recruited to implement the Building Schools of Character (BSC) program (White, 2010). To participate, pupils had to meet the following criteria: (a) be identified by school staff as being at risk of exclusion because of behavioral concerns, (b) have a Special Educational Needs statement of Social, Emotional and Mental Health Needs, (c) give personal consent and agreement to participate, and (d) have parental consent to participate in the study.

Table 1

Participants (pseudonyms used)

Participants	Age	M/F	Free School Meals (FSM)	SEN Statement	Year group	ethnicity
Hamza	8y9m	M	Yes	Yes	5	Pakistani
Alfie	9y2m	M	Yes	Yes	5	White British
Ashani	10y1m	M	Yes	Yes	6	Black Caribbean
Rahul	9y5m	M	Yes	Yes	5	Indian

Lewis	8y11m	M	Yes	Yes	4	White British
Kymani	10y3m	M	Yes	Yes	6	Black Caribbean
Conall	9y3m	M	Yes	Yes	5	White British
Archie	9y1m	M	Yes	Yes	5	White British
Sayeed	8y9m	M	Yes	Yes	4	Bangladeshi

Experimental Design

Experimental research as currently practiced in educational settings most often involves randomly assigning a number of participants to different conditions (experimental and control group) and observing the effects. However, random assignment and large numbers of participants are not necessary to demonstrate causal relations (Nock, Michel and Photos, 2007) within real world settings. Nock et al. (2007) assert that what is needed is controlled variation of the independent variable and measurement of the effects of this variation. The Single Case Experimental Designs (SCED) use all of the protocols associated with an experimental design, incorporating controlled variation techniques, allowing the researcher to examine causal relations between intervention and outcome. Therefore, SCED is well suited for educational research. In a SCED study, a behavior is identified (e.g. disruptive behavior) and measured over a period of time (baseline period). An intervention (e.g. Building Schools of Character program) is applied, and changes in the behavior are tracked (intervention phase). It is suggested here that within the SCED framework and based on the results and the question(s) to be answered the design most appropriate for use in education, is the multiple-baseline design. However, regardless of the design option chosen, SCED relies on data from continuous assessment to describe the current level of behavior and predict future behavior if no intervention was applied. Data from the intervention phase(s) are then used to test these predictions (Kazdin, 2011).

Therefore, a multiple Single Case Experimental Design was undertaken within an action research framework to investigate the efficacy of the BSC program for reducing disruptive behavior in the classroom for at risk pupils. Specifically, a multiple baseline design was used to collect data for all nine pupils designated by school personnel as disruptive and at risk of exclusion. Therefore, prior to the implementation of the BSC program baseline data was collected weekly for one month. This provided data required to establish behavioral stability. Once the baseline phase was completed, the BSC program was implemented and classroom based observational data was collected weekly for the remainder of the school year for all participants.

The Single Case Experimental Design has several essential features that make it a good choice for educational research when evaluating the efficacy of an intervention: (1) identification of a baseline measure, (2) continuous and repeated measurement of the Dependent Variable (DV), (3) manipulation of the Independent Variable (IV), (4) replication of the intervention effects within the same subject over time, allowing the subject to serve as his or her own control (Kazdin, 2011; Cooper, Heron, and Heward, 2007), (5) the possibility to replicate the intervention effects across multiple settings or participants, and (6) Visual analysis and representation of the data. Moreover, Continuous assessment throughout the duration of the study serves as the foundation

for drawing inferences about the treatment effects and allows for patterns in performance to be detected under various conditions (Hrycaiko and Martin, 1996). In addition, Comparisons of performance are made as conditions are manipulated over time (Cooper, 2021; Kazdin, 2011). Therefore, the replication of the effects of the treatment allows description, prediction, and testing of predictions throughout the investigation (Kazdin, 2011). Therefore, the SCED is a robust and effective approach to educational research.

Procedures

Following the recruitment of schools, identification of pupils and full consent obtained; the base line phase of the study began. During the base line phase staff training also occurred. Staff training was provided to all participating schools to prepare staff for implementing the Building Schools of Character (BSC) program. The BSC program is a multicomponent school based intervention designed to provide facilitated prosocial development. The components are Integrative Character Education (White and Shin, 2016) and Restorative Justice within Braithwaites (1998, 2018) reintegrative shame management framework (White, 2010; White and Warfa, 2011). The staff training included one day dedicated to Integrative Character Education, and three after school training evenings focused on restorative justice with designated school staff. Once the training was completed and the base line data collected the primary investigator conducted one character education class at each school during the first month of implementation to complete the training for staff. In addition, the primary investigator facilitated restorative justice conferences on several occasions at all five schools over the first two months to enhance the staff's understanding of the process.

The intervention: Building Schools of Character

The character education component is situated within Bakhtin's (1978) discourse associated with his theory of dialogue and the power of utterances and storytelling. The main aim of the character education discourse is designed to facilitate wellbeing through the development of rational and ethical decision making, problem solving and conflict resolution. Teachers provide two sessions a week for the first three months and then one session per week after. One session is provided within a Personal, Social and Health Education framework and uses mediated discourse to introduce the pupils to the key words and what they mean and look like in action. These words are Respectful, Responsible, Trustworthy, Caring, Fairness and Honesty. The discourse is enlivened with video clips, literature excerpts, etc. to elicit a vicarious understanding of what it means and what it looks like to be a fair, caring, honest, respectful, trustworthy and responsible person. The other session is provided within a Physical Education framework. Within these sessions, teachers or other school staff provide group activities that focus on cooperative problem solving, group dynamics that require cooperative dialogue and physical action to achieve the task and trust building activities to enhance group cohesion through lived experiences.

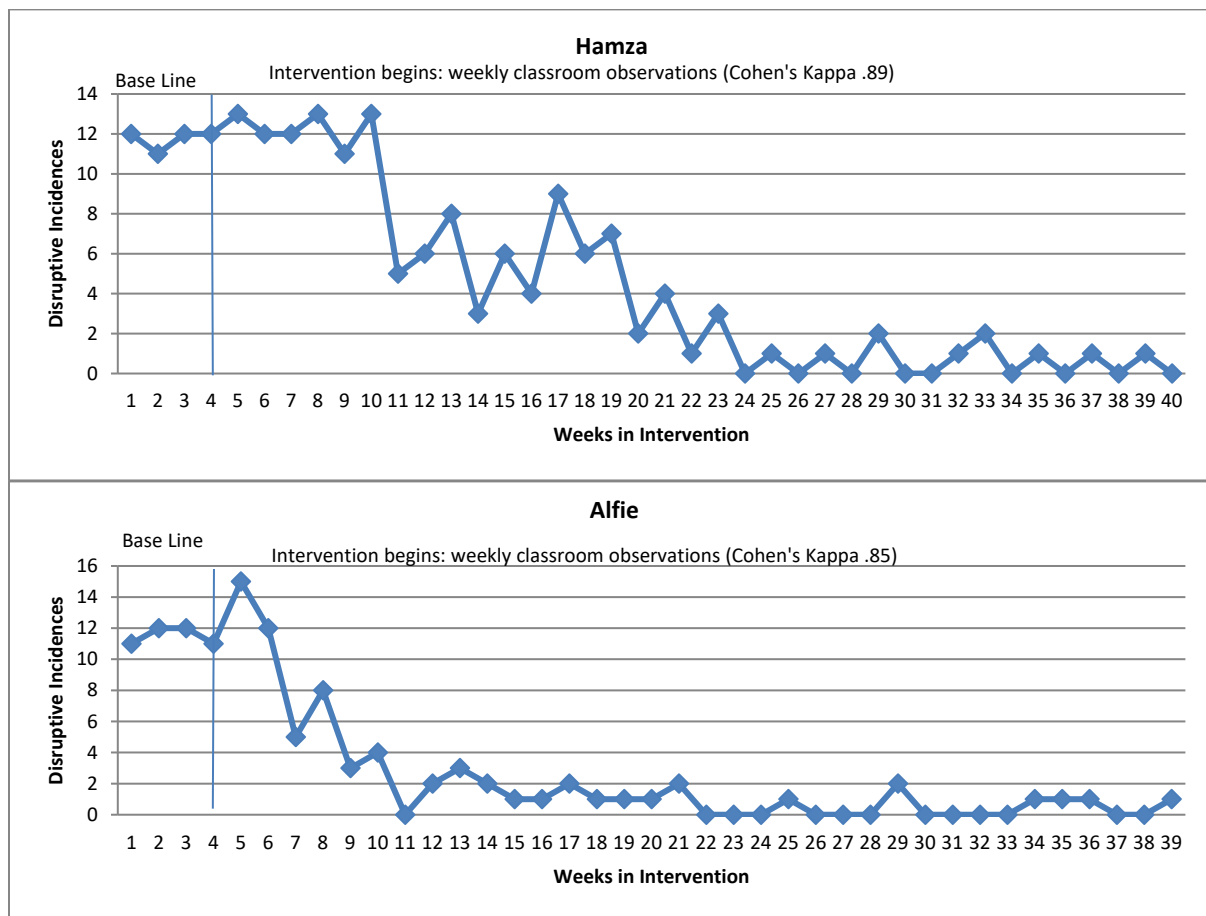
The restorative justice component consists of face-to-face conferences that involve both the offender(s) and the offended. The conferences are facilitated by a trained member of staff and focus on the harm done and ways to repair the harm caused rather than inflicting harm on an offender (Sherman and Strang, 2012, 2019). The facilitation of the process involves deliberation to decide what the offender(s) need to do to repair the harm and includes all people directly affected by the harmful behavior (Braithwaite, 2002). The conference is concluded when a

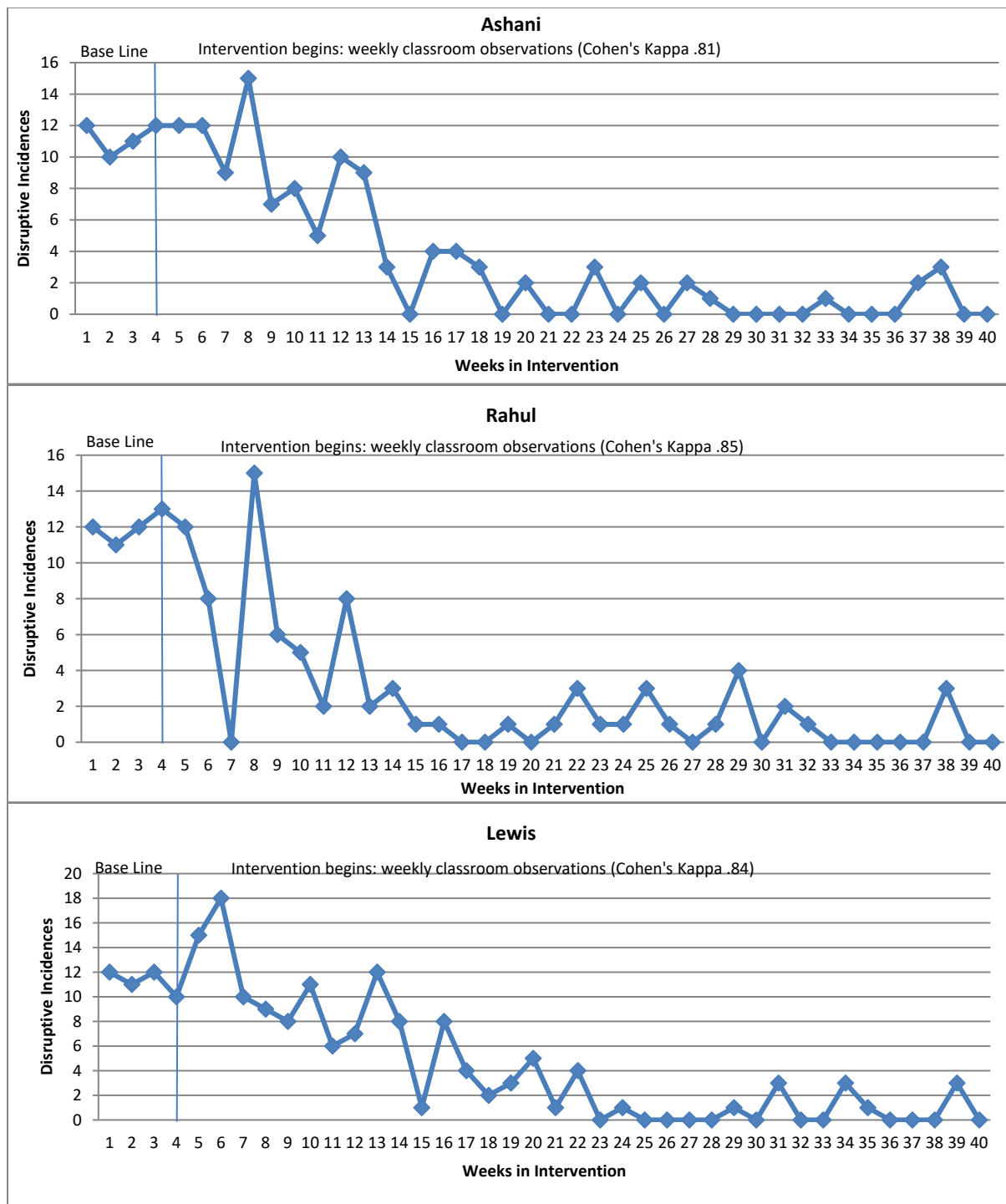
conclusion is reached when authentic consequences are agreed, how the offender(s) will repair the harm, and a verbal and signed commitment to be a responsible, respectful, fair, caring, honest a trustworthy member of the community going forward. It should be noted that all those offended by the behavior of the offender(s) should take part. In addition, it is considered appropriate to involve parents/guardians in this process if the harm is repeated or of a particularly disrespectful and irresponsible nature. Furthermore, the facilitator is trained to consistently use the six words (i.e. respectful, responsible, trustworthy, fair, caring and honest) to mediate the dialogue and focus on the commitment to do no further harm.

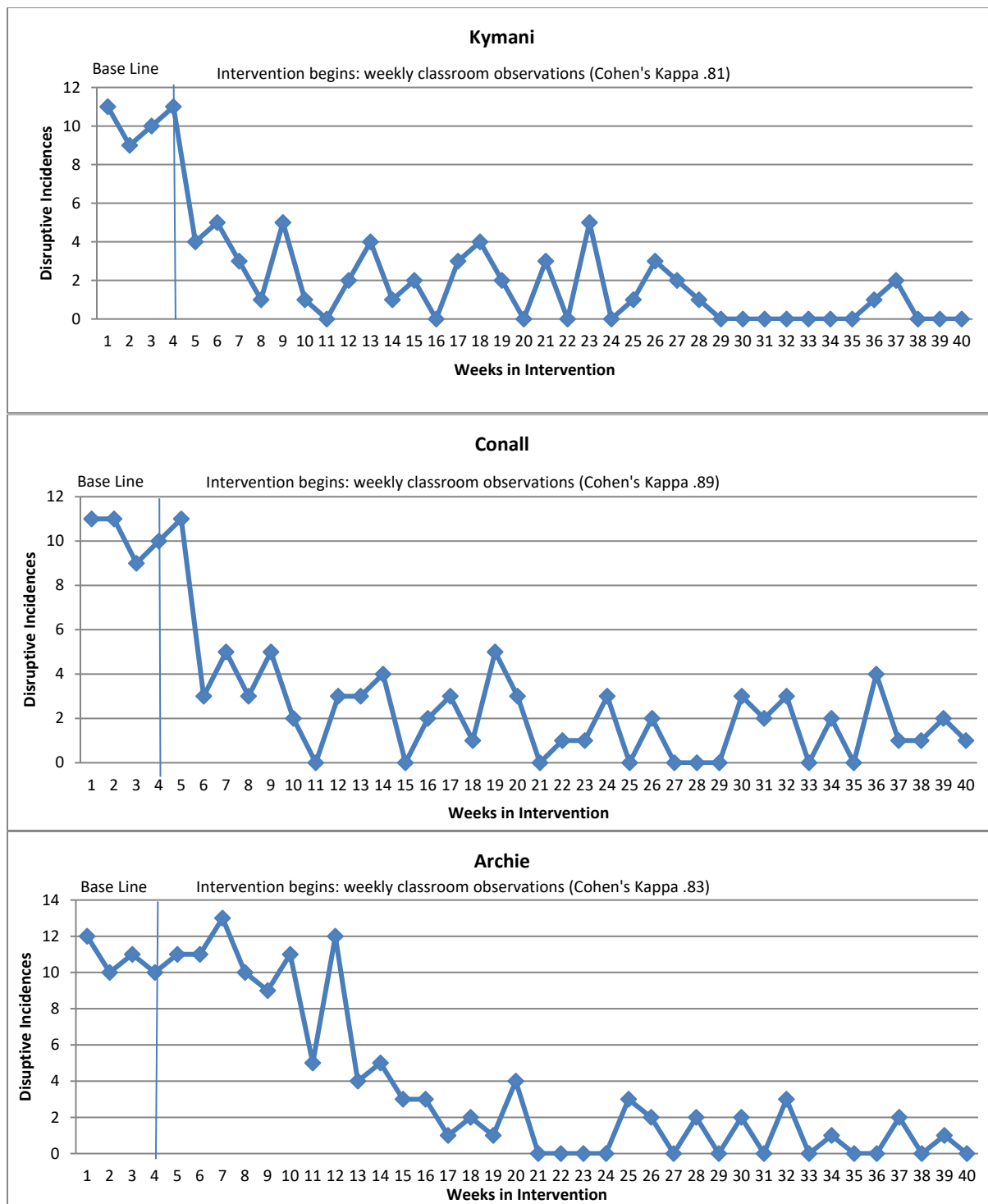
Data collection

Baseline data was collected using classroom observations. These observations occurred once per week. Once baseline data points were collected, analyzed for stability, and deemed stable the intervention phase of the experiment began. During intervention, classroom observations were conducted once per week over the course of one academic school year. The data was analyzed and graphed for visual analyses.

Results







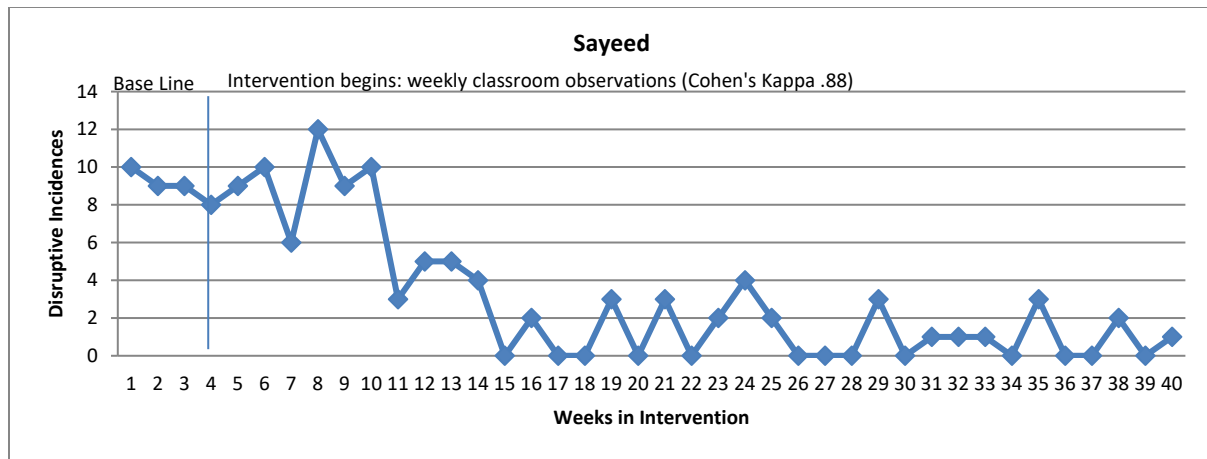


Figure 1: Visual Representation; Number of disruptive incidences during lessons at baseline and during intervention for each participant.

All pupils in the study who were identified by the participating schools as the most challenging pupils and at risk for exclusion showed a decrease in disruptive behavior during the study. All participants are identified using pseudonyms. For Alfie, Kymani, Lewis and Conall, there was a marked decrease of disruptive behavior within a month of implementing the intervention. For Hamza, Ashani and Archie they became less disruptive within eight weeks. Although Rahul and Sayeed struggled in the beginning, within 12 weeks they experienced a significant reduction in disruptive incidences during lessons. As indicated by the data all pupils by the end of the school year showed a marked decrease in disruptive behavior and were no longer considered at risk by the school staff.

Discussion

The purpose of this study was to investigate the efficacy of the Building Schools of Character program in relationship to reducing disruptive behavior in the classroom for children on the special education needs register for social, emotional and mental health needs. In England 71% of teachers indicate that classroom disruption is the leading issue related to disruption of teaching and learning (DfE, 2014) and most harmful to the learning process for all students. The results of this study indicate that there is a functional relationship between the Building Schools of Character program and a reduction in classroom disruption thereby addressing a major concern of teachers and improving the classroom experience for all learners. Therefore, as these data suggest a whole school initiative that embraces a humanistic approach to behavior development and emotional wellbeing may provide an avenue for overcoming the primary issue teachers and support staff highlight as most disruptive to learning.

Moreover, if disruption and other issues related to anti-social behavior are not addressed within a framework to promote and enhance wellbeing it is suggested here that children will continue to be marginalized and excluded from schools. There are many proactive approaches in school to help pupils learn complex math or intricate literacy skills. However, most approaches to behavior are reactionary. These data indicate that by implementing a socioculturally framed character education program that embraces Vygotsky's (1978) argument that learning precedes

development, schools can do what they do best; teach and pupils can learn within a caring, supportive and inclusive environment.

Research indicates that there is a bidirectional relationship between educational attainment and life outcomes. Education attainment has a direct correlation with improved mental health, physical health and economic health (PHE, 2014). In addition, research indicates that social and emotional competencies are a more significant indicator than IQ for educational attainment (Duckworth et al., 2019; Duckworth and Seligman, 2004). Moreover, it is a statutory duty for maintained schools to promote children's and young people's wellbeing (Children's Act, 2004). Therefore, by implementing a proactive approach to developing social and emotional competencies schools may be able to meet the needs of their pupils and increase their engagement with learning, overcome marginalization, improve academic attainment and enhance life outcomes for all children.

Implications for policy and practice

Schools and policy makers should consider the following when selecting an implementing new practice and policy; (1) Social and emotional competencies are a stronger indicator of academic attainment than IQ, (2) Educational attainment has a direct correlation to life outcomes (mental health, physical health and economic health) and (3) Classroom disruption is the leading issue highlighted by school staff as the main cause of disrupted learning (DfE, 2014).

Therefore, both policy makers and school administrators should; firstly, consider implementing whole school initiatives that promote social competency, emotional wellbeing and academic engagement through proactive teaching strategies that enhance social and emotional competencies. Secondly, policy and practice should move away from reactionary punishment and reward protocols that seek compliance and embrace strategies that teach rational and ethical decision-making, problem solving and conflict resolution. Thirdly, schools need to embrace their statutory duties to provide all children in their community with an inclusive, caring setting that helps them excel within their community school. With these recommendations, policy makers and school administrators may be able to provide teachers with the 'tool kit' required to proactively teach the social and emotions competencies required when a child makes a behavior mistake instead of reacting to the mistake in a punitive manner.

Limitations

Although, the Single Case Experimental Design (SCED) is well suited to small sample investigations in the early stages of evaluation to ascertain the efficacy/promise of an intervention prior to large scale and costly studies more research is required. Therefore, until a more robust study (e.g. random control trial) is conducted there may be confounding variables (e.g. maturation) that have influenced the outcomes of the study and this should be considered when weighing the value of the findings. However, the SCED does provide adequate control through baseline data collection, stability, and individual response to intervention to suggest that further studies with a larger sample size are warranted.

Implication for future research

Since these data only depict behavior in the classroom future studies should consider (1) Replicating the current study across several settings (formal and informal), (2) Replicating the

current study with different ages or levels, (3) Replicating the current study while undertaking multiple levels of assessment (individual, class, whole school etc.), (4) Replicating the current study using mixed methods to bring the voice of the pupil, peers, teachers etc. into the findings (5) Conducting a large scale randomized control trial.

Conclusion

Results of this study are promising and expand current literature on the efficacy of whole school multicomponent approaches to enhancing the social and emotional wellbeing of pupils by decreasing in class disruptive behavior. However, this study investigated an initiative that implements an integrative character education program and restorative justice processes within a very specific framework of theory (Whitt and Warfa, 2011; White and Shin, 2017). It would be erroneous to claim that all character education or restorative justice programs are equal. One benefit of providing universal (integrative character education) and targeted (restorative justice) approaches across the school to meet the social and emotional needs of pupils experiencing challenges within one initiative is that all children can gain from the teaching and learning embedded in the program.

Within an inclusive framework, all schools are required to provide a curriculum that “promote the spiritual, moral, cultural, mental and physical development of pupils at the school and of society, and prepare pupils at the school for the opportunities, responsibilities and experiences of later life” (Education Act, 2002; Academies Act, 2021). A whole school approach to enhancing rational and ethical decision making, problem solving and conflict resolution while decreasing disruptive behavior in the classroom provides the teachers and the pupils with a cooperative learning environment that can enhance the learning of social, emotional and cognitive competencies. Competencies required by all children to engage with school and embrace the benefits of academic success. Moreover, as schools decrease disruption and increase social engagement children will more likely be able to build meaningful friendships and trusting relationships across the school and within their communities. These prosocial friendships in turn have the potential to enhance the social and emotional wellbeing of children and may provide the support necessary to overcome challenges throughout life.

Ethical considerations

All procedures performed in this study were in accordance with the ethical standards of the institutional, and the BERA research committee ethical standards. Formal consent was obtained from all school administrators, senior staff, teachers and teaching assistants. Formal parental consent was also obtained, and verbal consent was given by all pupils who participated.

References

- Academies Act. (2021). London: The Stationery Office.
<https://www.legislation.gov.uk/ukpga/2021/8/contents/enacted>
- Berkowitz, M. W., & Bier, M. C. (2004). Research-Based Character Education. The Annals of the American Academy of Political and Social Science, 591(1), 72-85.
<https://doi.org/10.1177/0002716203260078>
- Braithwaite, J. (1998). Restorative justice. In T. Michael (Ed.), Handbook of crime and

- punishment (pp. 323-344). Cary, NC, USA: Oxford University Press.
- Bakhtin, M. (1978). *Esthetique etheorie du roman*. Paris: Gallimard.
- Braithwaite, J. (2002). Setting standards for restorative justice. *British Journal of Criminology*, 42, 563-577. <https://doi.org/10.1093/bjc/42.3.563>
- Braithwaite, J. (2018). Restorative justice: An overview. In T. Gavrielides (Ed.), *The Routledge international handbook of restorative justice* (pp. 17-29). London: Routledge. <https://doi.org/10.4324/9781315610248>
- Children Act. (2004). London: The Stationery Office.
- Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, 20, 37-46. <https://doi.org/10.1177/001316446002000104>
- Cooper, P. (2005). Social, emotional and behavioral difficulties, social class and educational attainment. *Emotional and Behavioral Difficulties*, 10(2), 75-77. <https://doi.org/10.1080/13632750500178820>
- Cooper, P. (2021). Social, emotional and behavioral difficulties, social class and educational attainment: A 20-year follow-up study. *British Journal of Educational Psychology*, 91(3), 539-555. <https://doi.org/10.1111/bjep.12376>
- Cornaglia, F., Crivellaro, E., & McNally, S. (2012). *Mental health and education decisions*. London: Centre for the Economics of Education.
- Cornaglia, F., Crivellaro, E., & McNally, S. (2017). Mental health and education decisions in early childhood. *Journal of Health Economics*, 55, 1-12. <https://doi.org/10.1016/j.jhealeco.2017.07.001>
- Cornaglia, F., Crivellaro, E., & McNally, S. (2018). Mental health and education decisions in primary school. *Journal of Health Economics*, 58, 48-62. <https://doi.org/10.1016/j.jhealeco.2018.01.002>
- Cornaglia, F., Crivellaro, E., & McNally, S. (2019). Mental health and education decisions in secondary school. *Journal of Health Economics*, 68, 102237. <https://doi.org/10.1016/j.jhealeco.2019.102237>
- Department for Education. (2012). *Pupil behavior in schools in England: Education Standards Analysis and Research*. London: Department for Education.
- Department for Education. (2021). *Behavior and discipline in schools: Statutory guidance for schools and colleges*. London: Department for Education. <https://www.gov.uk/government/publications/behavior-and-discipline-in-schools>
- Donohue, M. D. (2014). *Implementing school wide positive behavioral interventions and supports (SWPBIS): School counselors perceptions of student outcomes, school climate, and professional effectiveness* [Unpublished doctoral dissertation]. University of Connecticut. <https://opencommons.uconn.edu/dissertations/1075/>
- Duckworth, A. L., & Seligman, M. E. P. (2004). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science*, 16(12), 939-944. <https://doi.org/10.1111/j.1467-9280.2005.01641.x>
- Duckworth, A. L., Eskreis-Winkler, L., Galla, B. M., & Gross, J. J. (2019). The science of self-control: A comprehensive review. In J. E. Maddux & J. P. Tangney (Eds.), *Social psychological foundations of well-being and life satisfaction* (pp. 155-202). New York: Routledge. <https://doi.org/10.4324/9781315157806-7>
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011).

- The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82(1), 405-432.
<https://doi.org/10.1111/j.1467-8624.2010.01564.x>
- Education Act. (2002). London: The Stationery Office.
- Eisenberg, D., Golberstein, E., & Hunt, J. B. (2009). Mental health and academic success in college. *The B.E. Journal of Economic Analysis and Policy*, 9(1), Article 40.
<https://doi.org/10.2202/1935-1682.2199>
- Eisenberg, D., Hunt, J., Speer, N. (2013). Help seeking for mental health on college campuses: review of evidence and next steps for research and practice. *Harvard Review of Psychiatry*, 21(3), 179-192. <https://doi.org/10.1097/HRP.0b013e318292c1b1>
- Green, H., McGinnity, Á., Meltzer, H., & Goodman, R. (2005). Mental health of children and young people in Great Britain. London: Her Majesty's Stationery Office.
<https://doi.org/10.1080/13632752.2006.9521689>
- Hackett, L., Theodosiou, L., Bond, C., Blackburn, C., Spicer, F., & Rachel, L. (2010). Mental health needs in schools for emotional, behavioral and social difficulties. *British Journal of Special Education*, 37(3), 148-155. <https://doi.org/10.1111/j.1467-8578.2010.00467.x>
- Kim-Cohen, J., Caspi, A., Moffitt, T. E., Harrington, H. L., Barry, B. S., Milne, J., & Poulton, R. (2003). Prior juvenile diagnoses in adults with mental disorder. *Archives of General Psychiatry*, 60(7), 709-717. <https://doi.org/10.1001/archpsyc.60.7.709>
- Kim-Cohen, J., Moffitt, T. E., Taylor, A., Pawlby, S. J., & Caspi, A. (2017). Maternal depression and children's antisocial behavior: Nature and nurture effects. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56(9), 734-741.
<https://doi.org/10.1016/j.jaac.2017.06.007>
- Kratochwill, T. R., Hitchcock, J., Horner, R. H., Levin, J. R., Odom, S. L., Rindskopf, D. M., & Shadish, W. R. (2010). Single-case designs technical documentation. Institute of Education Sciences. <https://doi.org/10.1037/e400282010-001>
- National Institute for Health and Care Excellence (NICE). (2021). Social and emotional wellbeing in primary education. <https://www.nice.org.uk/guidance/ng183>
- McEvoy, A., & Welker, R. (2000). Antisocial behavior, academic failure, and school climate: A critical review. *Journal of Emotional and Behavioral Disorders*, 8(3), 130-140.
<https://doi.org/10.1177/106342660000800302>
- Mowat, J. G. (2015). Inclusion – that word! Examining some of the tensions in supporting pupils experiencing social, emotional and behavioral difficulties/needs. *Emotional and Behavioral Difficulties*, 20(2), 153-172. <https://doi.org/10.1080/13632752.2015.1013395>
- Public Health England (PHE). (2014). Public Health England's priorities for 2013 to 2014. <https://www.gov.uk/government/publications/public-health-englands-priorities-for-2013-to-2014>
- Schneiders, J., Drukker, M., van der Ende, J., Verhulst, F. C., van Os, J., & Nicolson, N. A. (2003). Neighbourhood socioeconomic disadvantage and behavioral problems from late childhood into early adolescence. *Journal of Epidemiology and Community Health*, 57, 699-703. <https://doi.org/10.1136/jech.57.9.699>
- Scott, S., Knapp, M., Henderson, J., & Maughan, B. (2001). Financial cost of social exclusion: Follow up study of antisocial children into adulthood. *BMJ*, 322(28), 1-5.
<https://doi.org/10.1136/bmj.322.7294.1055>
- Sherman, L. W., & Strang, H. (2012). Restorative justice as evidence-based sentencing. In J. Petersilia & K. Reitz (Eds.), *The Oxford Handbook of Sentencing and Corrections* (pp. 215-243). Oxford University Press.
<https://doi.org/10.1093/oxfordhb/9780199730148.013.0014>

- Sherman, L.W. and Strang, H. (2019) Restorative justice: the evidence, *The ANNALS of the American Academy of Political and Social Science*, 686(1), 155-173.
<https://doi.org/10.1177/0002716219850839>
- Smith, H. (2008). Mental health in school-aged children. *British Journal of School Nursing*, 3(6), 285-286. <https://doi.org/10.12968/bjsn.2008.3.6.30068>
- Stoiber, K. C., & Gettinger, M. (2020). Developing and evaluating responsive school practices to support social-emotional learning. In R. Scott & S. Kosslyn (Eds.), *Emerging trends in the social and behavioral sciences: An interdisciplinary, searchable, and linkable resource*. <https://doi.org/10.1002/9781118900772.etrds0235>
- Strand, S. (2015). Ethnicity, deprivation and educational achievement at age 16 in England: Trends over time. Department for Education.
- Vikram, P., Flisher, A. J., Hetrick, S., & McGorry, P. (2007). Mental health of young people: A global public-health challenge. *The Lancet*, 369(9569), 1302–1313.
[https://doi.org/10.1016/S0140-6736\(07\)60368-7](https://doi.org/10.1016/S0140-6736(07)60368-7)
- Vostanis, P., & Humphrey, N. (2021). School-based mental health interventions: State of the art and future directions. *British Journal of Psychiatry*, 218(6), 293-296.
<https://doi.org/10.1192/bjp.2021.11>
- White, R. (2010). Building schools of character (Unpublished doctoral dissertation). University of Durham.
http://etheses.dur.ac.uk/189/1/PhD_ready_for_publication.pdf?DDD29
- White, R., & Warfa, N. (2011). Building schools of character: A case-study investigation of character education's impact on school climate, pupil behavior, and curriculum delivery. *Journal of Applied Social Psychology*, 41(1), 45-60. <https://doi.org/10.1111/j.1559-1816.2010.00701.x>
- White, R., & Shin, T. (2017). Integrative Character Education (ICE): Grounding facilitated prosocial development in a humanistic perspective for a multicultural world. *Multicultural Education Review*. <https://doi.org/10.1080/2005615X.2016.1276670>

About the Author

Dr. Robert White was recently appointed as the E.V. Wilkins Endowed Professor in Education, at Elizabeth City State University. Dr White is a distinguished educator, researcher, and advocate committed to advancing equitable and transformative education. With a Ph.D. in Educational Studies from Durham University, specializing in Special Education and Educational Psychology, Dr. White has held roles at the University of Aberdeen, Queen Margaret University, East Tennessee University. His expertise lies in critical theory-informed educational leadership, emancipatory pedagogies, and inclusive education, showcased through global initiatives such as his role as the International Coordinator of Inclusion and Equity for the UNESCO Teacher Taskforce. An accomplished author and researcher, Dr. White's recently published book on *Critical Theory Informed School Leadership* underscores his dedication to advancing knowledge and practice. Beyond research, his impact extends to teaching, with courses like *Emancipatory Educational Leadership*, earning him accolades for teaching excellence. Dr. White's profound service to the academic community, including committee work and leadership roles, aligns with his passion for promoting diversity, autonomy, and agency. His rich academic journey is marked by innovation, equity, and a steadfast commitment to high quality culturally competent inclusive and equitable excellence in education.

Using the Problem-Antecedent-Consequences-Solution Curriculum to Improve Socio-Sexual Decision-Making of Students on the Autism Spectrum

Dr. Pamela S. Wolfe
The Pennsylvania State University

Dr. Muhammed A. Karal
Sinop University, Faculty of Education,

Dr. Jonte C. Taylor
The Pennsylvania State University

Abstract

Sexuality education is an essential part of a comprehensive curriculum for individuals with disabilities as emerging adults. Lack of socio-sexuality education for individuals with disabilities has been linked to limited resources and training for teachers/personnel, and restrictive attitudes. The present study examined the effectiveness of the Problem-Antecedent-Consequences-Solution (PACS) curriculum to teach socio-sexuality skills for a group of adolescent students on the autism spectrum. Results indicated that four areas of flirting, using the stall, entering the bathroom, and passing gas resulted in significant differences for the participants. The curriculum showed promise for permitting adolescent students on the spectrum access to important socio-sexuality information that might promote self-advocacy skills and protection from abuse.

Keywords: Sexuality, socio-sexuality, curriculum, decision making, autism spectrum

Using the Problem-Antecedent-Consequences-Solution Curriculum to Improve Socio-Sexual Decision-Making of Students on the Autism Spectrum

Socio- sexuality education is a significant part of a comprehensive curriculum for adolescents with disabilities to learn about their own development (Sinclair et al., 2017) and interaction with society (Leutar & Mihokovic, 2007). Although socio-sexuality education is critically important, it is limited for all individuals with disabilities (Wolfe et al., 2019). Socio-sexuality education refers to information related to physiological and social aspects of sexuality (Wolfe et al., 2009). Lack of education for all individuals with disabilities about socio-sexuality has been linked to limited resources and training for teachers/personnel and restrictive attitudes (Saxe & Flanagan, 2013; Travers et al., 2014). Research related to socio-sexuality education indicates that persons with disabilities have low levels of knowledge about basic physiology and social/emotional aspects of relationships (Dukes & McGuire, 2009) and that low levels of knowledge can lead to increased issues with recognition of safer sex practices. Individuals with disabilities are more likely than the general population to encounter negative sexual experiences or to be sexually abused (Stoffelen et al., 2017).

Individuals on the spectrum experience normal physical development and emergence of secondary sex characteristics at puberty (Sullivan & Caterino, 2008). Inappropriate sexual

behaviors and discriminating between appropriate/inappropriate times and places to perform behavior is an area of concern, particularly for males and masturbation (Jang et al., 2011; Kellaher, 2015; Koller, 2000; Ray et al., 2004; Sullivan & Caterino, 2008). In the study conducted by Stokes and Kaur (2005), results indicated that adolescents on the spectrum who have lower support needs found to be less aware of privacy related rules such as knocking on closed doors and not touching private body parts in public than neuro-typical peers and they displayed more inappropriate sexual behaviors, including inappropriately touching others or themselves or speaking about sexual activities in an offensive manner. In addition to issues related to problematic sexual behaviors, there also is a need for socio-sexuality education to provide information about relationships. Individuals on the spectrum also may need information and support for their relationships with others. Research shows that individuals on the spectrum want to engage in social behaviors, want to know about sexuality, want to have opportunities to engage in relationships such as dating and marriage, and believe that socio-sexuality education is a right to which they are entitled (Saxe & Flanagan, 2014; Schaafsma et al., 2016; Stokes & Kaur, 2005). Thus, the purpose of this investigation was to examine the effectiveness of a socio-sexuality education curriculum for students on the spectrum.

Content and Structure of Socio-Sexuality Education

Comprehensive socio-sexuality curricula, in contrast with specialized curricula, cover a broad range of topics. The Sexuality Information and Education Council for the United States (SIECUS, 2004) has outlined “life behaviors of a sexually healthy adult” and identified six key areas that should be addressed that include relationships, personal skills and sexual behavior, among others. The Future of Sex Education (FoSE) Initiative (2012) also has outlined topical areas that overlap somewhat with SIECUS and are tied to the National Health Education Standards (NHES; 2007). Both sets of standards require “higher order thinking” (FoSE, 2012) associated with concept formation and decision-making. The NHES (2007) specifically includes skills related to analyzing influences, accessing information, interpersonal communication, decision-making, goal-setting, and advocacy. The inclusion of self-advocacy education topics in socio-sexuality curriculum also has been strongly recommended including components such as capacity (provision of knowledge and skills), opportunity (providing access to integrated settings) and positive self-perception (Travers et al., 2014).

Decision-Making of Students on the Spectrum

Decision-making is a systematic process that involves using available information to identify and develop an appropriate course of action, delineating probable consequences, and choosing and implementing the best course of action (Hickson & Khemka, 2013). Research indicates that skills related to decision-making are critical for protection as well as a person-directed quality of life for individuals with disabilities (Agran et al., 2002; Hickson & Khemka, 1999; Hickson & Khemka, 2001; Hickson & Khemka, 2013; Hickson et al., 2015; Khemka et al., 2005; Khemka & Hickson, 2006; Khemka et al., 2009; Travers et al., 2014; Wehmeyer et al., 2013). Research about decision-making and sexual abuse indicated that individuals on the spectrum may fail to develop alternative choices and might not anticipate the consequences of their actions. Further individuals on the spectrum may demonstrate deficits in understanding the motivations and intentions of another, which places individuals on the spectrum in danger of being coerced and taken advantage of (Hickson & Khemka, 2013). Individuals with developmental disabilities have documented difficulty comprehending situations, applying systematic decision-making

processes, and considering alternate skills related to these situations (Hickson & Khemka, 2013; Willner et al., 2010).

Hickson and her colleagues (2015) developed a curriculum (ESCAPE-DD) to enhance decision-making skills of adults with developmental disabilities (DD). The researchers were interested in the impact of the ESCAPE-DD curriculum on decision-making skill; the role of problem awareness in decision-making; and identification of factors related to the potential success of the curriculum. A part of the curriculum used a behavioral skill approach to teach decision-making in situations of abuse using vignettes. The behavioral approach used a reasoning based decision-making strategy that included four steps: (a) identifying a situation as abusive; (b) generating alternatives; (c) considering consequences; and (d) choosing a course of action. The authors found that the ESCAPE-DD curriculum improved the overall decision-making and safe decisions, but that problem awareness did not significantly improve. Despite the finding related to problem awareness, research conducted by Hickson and her colleagues (2015) demonstrated that problem solving can be taught to individuals with DD and provides evidence that a behavioral approach to teaching decision-making is useful.

Theoretical Basis of Socio-Sexuality Education

The majority of socio-sexuality curricula do not have a theoretical or empirical basis (Wolfe et al., 2019). Without a theoretical basis, it is difficult to assemble strategies that “hang together” and provide a systematic skill acquisition plan. A theoretical approach consists of two evidence-based practices of explicit instruction and visual supports that can be employed to effectively teach decision-making within the context of socio-sexuality education.

Explicit Instruction

In traditional learning environments, spoken language is the primary source of instruction; however, for many students with autism this approach is unsuccessful (Carnahan, 2009). Students with autism often have difficulty processing verbal information and the contrast between teaching and learning styles may result in individuals on the spectrum responding to teaching situations with frustration, escape tactics, and disruptive behavior (Sigman et al., 1997). In this approach based on behavioral principles, students are taught skills using a structured format of modeling, guided practice, and independent practice (Archer & Hughes, 2011). Modeling is a critical component of the instructional procedure wherein the teacher explicitly teaches what, how, when, and where students are learning. The teacher can also use examples and non-examples of what and what not to do to illustrate content.

The use of explicit instruction is for students to learn skills in structured manner. Although primarily researched with students having learning disabilities, explicit instruction also has been used successfully to teach students on the spectrum (Knight et al., 2012; Root, 2019). Explicit teaching is an empirically supported intervention for students on the spectrum. This procedure involves such strategies as the presentation and practice of small definitive steps, visual aids, modeling, choral responses, multiple opportunities for review and guided practice, and corrective feedback (Tarnai & Wolfe, 2008). Explicit instruction is a planned and systematic practice in which teachers follow an explicit script and the instruction is given in a fast and continuous pace. Student engagement is fostered throughout the lesson and the instructor models, leads, and tests

the students on the information discussed. Immediate corrective feedback is also provided (Ganz & Flores, 2009).

Visual Supports

In conjunction with explicit instruction, the use of prompting procedures and visual supports among children with autism has been an effective method for teaching a wide range of behaviors and skills (Peterson et al., 2008). Visual supports contain a range of receptive and expressive methods that provide information about an activity, event or situation to facilitate students understanding of a topic and to skill demonstration (Wong et al., 2014). Some examples of visual supports are objects, images, token economy systems, or task organizers. These prompts are advantageous for students by clearly portraying the necessary expectations and illustrating what will happen next as well as promoting independence and confidence in the student. (Pennsylvania Training and Technical Assistance Network, 2005).

These supports which are more permanent than words assist individuals on the spectrum across settings, activities, and instruction by enhancing individuals' understanding (Rutherford et al., 2019). They might be low-tech such as objects, photos, pictures or high-tech such as communication devices, however, they are one of the most common intervention methods for individuals on the spectrum across the lifespan (Denne et al., 2018; NICE, 2012; Rutherford et al., 2019). Visual supports including visual representations are evidence-based practices for toddlers (0-2 years) to young adults (19-22 years) on the spectrum (Wong et al., 2014) and effective intervention method for individuals on the spectrum to acquire, generalize, and maintain skills (Bellini & Akullian, 2007). Visual supports can provide a structure and/or sequence that individuals on the spectrum need to engage in their daily-routines (Rao & Gagne, 2006), can be individualized easily to provide assistance in the areas of social and behavioral learning (Meadan et al., 2011), and can be used standalone or integrated with other approaches effectively to address many skills such as social, communicational, behavior, motor, and adaptive (Arthur-Kelly et al., 2009).

Purpose of the Current Study

Varying research has been conducted regarding relationship experiences of individuals on the spectrum (Hancock et al., 2020). Research indicates that individuals on the spectrum express sexual behaviors as well as a clear desire for romantic relationships (e.g., Byers et al., 2013; Strunz et al., 2017; Sullivan & Caterino, 2008). Nonetheless, individuals on the spectrum, as with any other people, have a fundamental right to be free to enter into consensual intimate relationships. Although there is an increasing need to understand the sexual development of this population so that their needs may be successfully met (Sullivan & Caterino, 2008), there is not enough research studies examining the impact of curricula. Thus, the purpose of this study was to examine the effectiveness of the PACS curriculum for a group of adolescent students on the spectrum. Specifically, this study attempts to answer the following question:

1. What are the impacts of the PACS curriculum on socio-sexual decision-making skills of adolescent students on the spectrum?

Method

Participants

A sample of 15 students on the spectrum were recruited from a social skills training program. The participants took part in the social skills program for one hour of the day with the rest of the day spent on academic instruction in self-contained classrooms. An interview completed with five teachers to identify individuals who met the eligibility criteria for the study: (1) inappropriate sexual behaviors in classroom; (2) deficits in knowledge regarding the sexual education; and (3) no visual or hearing difficulties to interfere with participation in the study. All participants used verbal language and took part in a social skills program in a specialized school for students on the spectrum. Following the identification of 15 students, informed consent procedures were conducted by sending forms to participants' parents. Of the 15 consent forms that were sent home, nine were returned with written consent. In addition, the terms of participation were described to each student and they were given an opportunity to decline partaking in the study. The final sample consisted of 6 boys and 3 girls who ranged in age from 11- 16 years. Specific information regarding the participants' socioeconomic status was not available. All sessions were carried out in a private room within the agency. Due to the nature of the present study, boys and girls participated in separate sessions.

Materials

PACS Decision-Making Guide

A visual representation of the PACS decision-making model was created. The chart listed each of the four steps (i.e., problem, alternatives, consequences and safe decision) as well as a pictorial representation for each of the steps. This was done to facilitate the student's understanding of each of the steps.

Yes/No Paddles

Yes/no paddles were created for students to use when answering the pre-test and post-test questions. One side of the paddle was green and featured the word "Yes" while the other side of the paddle was red and featured the word "No". Reason of using paddles instead of verbal responses was to prevent participants to affect each other's response and to collect responses from all participant at once.

Example/Non-Example Pictures

An example and non-example picture was created for each scenario. Each picture was an 8.5 by 11-inch photograph that consisted of an individual(s) portraying the designated scenario. For example, in the "undressing" scenario the example photograph consisted of a person undressing outside, while the non-example photograph depicted a person undressing in a bathroom. The pictorial representations of each scenario were used to assist the students in identifying which behaviors were and were not appropriate.

Safe Decision Cards

A safe decision card was created for each scenario which featured three criteria that must be met in order to make a safe decision. For example, in the "touching other's private parts" the three safe decision criteria were as follows: (a) do you know the person; (b) did you get an ok; and (c) are you in a private place? In addition, pictures were used to represent each of the printed criteria. The topics selected for intervention were determined by asking five teachers at the

school to identify social or sexual issues that they have or had seen displayed by the student that they deemed important for instruction. For example, one teacher indicated that if a boy had talked to the student in the hall one time, the girl declared he was a boyfriend (did not know who was a friend v. “intimate friend”), several male students had experienced having erections in public and proceeded to masturbate in the classroom or the community (masturbation). Once the 14 topics were identified, review of sex education curriculums were undertaken to determine strategies/skills that could be taught to participants. After three safe decision rules were identified, the first author asked for social validity feedback from four doctoral students (2 males and 2 females). The doctoral students were asked whether they agreed that the three criteria were appropriate (e.g., what most people without disabilities would do in a similar situation). Safe decision rules were modified for only one topic: getting an erection in public (changed from leaving the classroom immediately to sitting still until the erection subsides or covering with a book or piece of clothing).

PACS Curriculum

In an effort to support students on the spectrum in developing socio-sexual awareness, the PACS curriculum was developed. The curriculum included several scenarios related to the topic areas of undressing, masturbation, passionate touching, affectionate touching, touching other’s private parts, talking about sex related topics, flirting, using a bathroom stall, entering a public bathroom, passing gas, looking at others in public, erection in public, asking to use the bathroom, and determining an intimate friend. The four components of the curriculum is (a) problem; (b) alternatives; (c) consequences; and (d) safe decision. Firstly, instructor begin by describing a “problem” to the participants regarding a scenario related to the chosen topic. Then the instructor and students discuss possible “alternatives” as well as potential “consequences” that may arise in light of these alternatives. At the end, participants are supposed to identify a “safe decision” for the problem. The implementation of the curriculum combined explicit instruction and visual support with the purpose of facilitating students to state sexual education information and identify appropriate sexual behaviors. Each scenario discussed the core components of the PACS curriculum using an explicit script. In addition, student-teacher interactions and independent practice was encouraged throughout the session.

PACS Implementation Procedures

At the beginning of the session the four steps of problem, alternatives, consequences, and safe decision were reviewed with the students. Next, students were told the scenario of the lesson would focus on (e.g. private body parts). Subsequently students were administered ten pre-test questions regarding the scenario. The instructor read each question aloud and repeated the question when necessary. Students sat with their backs towards each other and raised their “yes/no” paddle to answer each question. Participants’ responses were recorded manually by the instructor and later transferred into a master data sheet for analysis. No feedback was given for the pre-test questions.

Following the pre-test, each student was given a safe decision card for the scenario being discussed. The instructor reviewed the safe decision card with the students and each student repeated back the three criteria on the card. After the students became familiar with the designated criteria students were shown the example and non-example pictures and asked to identify and provide a rationale to whether the pictures were or were not appropriate. Next, the

instructor and participants followed the four steps of problem, alternatives, consequences, and safe decision. Once the implementation of the curriculum was complete, the safe decision cards were once again reviewed with the students. Next, students were administered ten post-test questions. Once again, each question was read aloud by the examiner and students sat back-to-back and answered the questions by raising their yes/no paddle. Post-test responses of participants were recorded manually by the instructor and then transferred into a master data sheet for analysis. Lastly, the examiner reviewed each of the post-test questions and provided feedback to the students. At the conclusion of the session, the instructor asked each participant if he or she had any questions.

Each intervention session lasted approximately 30 minutes. The PACS implementation procedures were closely followed throughout the study and each session was videotaped. Participants were treated in accord with the ethical principles and standards of “Respect for People’s Rights and Dignity” and “Maintaining Confidentiality” for working with research participants as set forth by the American Psychological Association (2017). At the conclusion of the session, participants were thanked for their participation and asked to select an item from a bag. The items included pencils, pens, small candy bars, erasers, and snack bags of chips or pretzels. The items were selected by asking teachers for suggestions as well as the participants themselves at the beginning of the study. Before returning to their classrooms, participants were given a form to be shared with their parents. The form included the topic that was covered that day, decision rules, associated vocabulary, and a space for questions from parents to the researcher. A form also was given to the classroom teacher after each session.

Research Design and Analysis

In this study, the research design was repeated measures pretest-posttest design (Creswell & Creswell, 2018) was used to explore the effects of PACS curriculum on decision-making skills of adolescents on the spectrum. In this type of experimental design ‘a single group of subjects is given a pretest, then the intervention, then the posttest’ (McMillan, 2008, p. 228) to investigate whether there is a change on dependent variable.

Based on violations of normality of distribution and small sample size, changes in the pretest-posttest performance of participants on the multiple sections of the PACS were assessed using a non-parametric Wilcoxon Signed Rank Test. Three assumptions were met to conduct Wilcoxon Signed Rank Test: (a) dependent variable was measured as the ordinal or continuous variables; (b) independent variable consisted of related groups (i.e., the same subjects); (c) distribution of the differences between the two related groups was symmetrical (Conover, 1999). An alpha level of $p < .05$ was established as the criterion for determining significance.

Dependent Variable

The dependent variable included a measure of decision-making skills of adolescent students on the spectrum. Twenty yes/no questions were developed for each curriculum topic. The purpose of these questions was to measure participants’ decision-making skills related to socio-sexuality content. The questions were then randomly divided to create ten pre-test and ten post-test questions for each curriculum topic. Each question was read aloud by the instructor. The questions required student participants to define the topic area as well as identify appropriate social and sexual behaviors for a range of situations.

Treatment Fidelity

A graduate research assistant monitored the steps for implementing the PACS intervention. The examiner tallied the steps that were appropriately carried out during the session using a treatment fidelity rating sheet. Treatment fidelity was calculated by dividing the total number of tallied steps by the total number of steps possible. Fidelity scores ranged from 92-96% with a mean of 94%.

Results

The current study analyzed the effects of the PACS Curriculum on the development of sexual education of middle school students on the spectrum. The study examined 14 socio-sexual areas using a pre- and post-assessment. A series of Wilcoxon Signed Rank Tests were conducted for each socio-sexual area to determine whether there was a difference in pre- and post-test scores. Results of that analysis indicated that out of the 14 areas, there were four that resulted in significant differences for the students. The four areas were flirting ($W = 0.000, p = 0.041$), using the stall ($W = 0.000, p = 0.026$), entering the bathroom ($W = 0.000, p = 0.026$), and passing gas ($W = 0.000, p = 0.039$). See Table 1 for complete report of data.

Table 1
Results from PACS Curriculum Scores

	N	Pre		Post		Analysis	
		Mean	SD	Mean	SD	W	p
Masturbation	9	9.44	0.73	9.67	0.71	2.50	0.32
Talk Sex	8	9.13	1.13	9.88	0.35	0.00	0.11
Flirting	7	8.71	1.11	10.00	0	0.00	0.04*
Affection Touch	7	8.57	1.40	9.57	0.53	2.00	0.13
Touching Private Parts	7	8.71	1.38	9.57	0.79	5	0.25
Using Stall	7	8.00	0.82	9.71	0.49	0	0.03*
Enter Bathroom	7	8.14	1.07	9.86	0.38	0	0.03*
Pass Gas	6	7.67	1.37	9.83	0.41	0	0.04*
Looking Public	6	9.33	1.21	10.00	0	0	0.18
Erection Public	5	7.60	2.07	9.20	0.84	0	0.07
Ask Bathroom	5	10.00	0	10.00	0	0	NA
Passion Touch	4	9.25	0.50	10.00	0	0	0.08

Intimate Friend	4	9.75	0.5	10.00	0	0	0.32
			0				
Undress	4	10.00	0	10.00	0	0	NA

Note. N = Number; SD = Standard Deviation; W = Wilcoxon Sign Rank Test Score; p = significance; NA = Not Applicable; * = $p < 0.05$.

Discussion

The results of the study indicate that the PACS intervention increased decision-making skills related to socio-sexuality content for adolescents on the spectrum. The study also showed evidence that socio-sexuality issues can be taught since the topic of abuse has been the most frequently addressed topic related to decision-making (e.g., Khemka et al., 2005; Hickson et al., 2015). The four step process of identifying the problem, describing alternatives, describing the consequences of each alternative, and making a safe decision (rehearsed via explicit instruction) was effective. Through the process, students were able to list the consequences of potential actions that they had generated and then be provided “safe decisions” related to their generated consequences. Of note in the strategy is the use of examples and non-examples to assist students in forming the problems, alternatives, and consequences. The “problems” in some of the socio-sexuality topics required higher order thinking. Higher order thinking is more than just memorizing facts or telling something back and involves inferring facts and conceptualization (Thomas & Thorne, 2009). The preliminary findings of the PACS intervention holds promise that concept formation through multiple examples and non-examples, may increase decision-making of more complex issues (what is a passionate touch, who is an intimate friend, flirting) as well as more concrete decisions (when can I enter a bathroom stall in a public restroom). Given the preliminary nature of the research, it is not known how many examples/non-examples are needed. It could be extrapolated that students with more severe cognitive disabilities might need more examples/non-examples to form the concept and may require more “exaggerated” examples/non-examples to highlight critical distinctions. As evident in other research, multiple exemplars also might increase generalization (Neely et al., 2015). The PACS Curriculum for decision-making could also be used as an alternative to role play or social autopsies (in which past social events are broken down and discussed) which require individuals on the spectrum to take the perspective of others, a key difficulty for this population (Jones et al., 2018).

The present study also showed evidence of the use of explicit instruction to teach decision-making skills to individuals on the spectrum. Although the instructional strategy has not widely been used to teach decision-making skills, it demonstrated positive results for skill their skill acquisition (Knight et al., 2012). Both explicit instruction and visual strategy use have a strong empirical base and were employed in the intervention. After decision-making had occurred, the PACS approach used explicit instruction elements such as systematic instruction, choral responding, and rapid pacing to repeatedly practice the safe decision.

In the current study, teachers identified topics for instruction. This allowed for some individualization of topic areas. Also, because students were asked to generate vocabulary/slang for the topic, the discussions were also individualized (e.g., passing gas, farting, cutting the cheese, tooting). Use of language that reflects the students’ current understanding is critical as the lexicon could not be present in current environments and thus, not understood by students

from the outset. Interestingly, the topics identified by the teachers for instruction included many topics that might be categorized as “hidden curriculum” rules or rules that are known to others without explicit instruction (Scott, 2019). Examples of the hidden curriculum included rules related to how to use a bathroom stall (knock, look under the door....) which students without disabilities may see modeled by others or simply deduced but which may need to be explicitly taught to students on the spectrum. This supports extensive research showing that individuals on the spectrum have difficulty with social cues and interpreting social information (Kokina & Kern, 2010). Also of interest is that only two of the topics with high effect sizes centered on interaction with others (passionate touching and affectionate touching) given deficits of social interaction skills associated with ASD (Kara & Wolfe, 2018). Masturbation also had no effect size although this is a topic frequently cited in the literature as an issue (Kellaher, 2015; Koller, 2000; Ray et al., 2004).

Limitations

A limitation of the current study is the low number of participants and uneven number of participants per topic. It would be useful if more students could be involved and each topic taught to each student. Uneven group numbers were due to logistic issues (students absent, needing to stay in class due to academic content or behavior). Another limitation of the research is lack of maintenance data. Such data would strengthen the case that the safe decision rules could be recalled over time. Although generalization data would undoubtedly strengthen the veracity of the intervention, generalization data would be difficult to obtain. Future research should examine different populations for whom the PACS intervention may be useful. It would be useful to see if the intervention would be effective for students having lower cognitive skills. In the current study, participants were able to read and vocally respond. The safe decisions utilized photos, and in some cases, drawings of concepts (for example, a picture of a keyhole and someone looking through it represented the concept of “privacy”). Students who had lower cognitive functioning or lower symbolic representation skills may need modifications such as fewer rules and/or other symbolic representation. It may be useful to consider other delivery methods such as video modeling as well.

Although no parents responded to the social validity questionnaire which sought information about whether follow up information was needed on each topic, the involvement of parents in socio-sexuality education is needed (Travers et al., 2014; Wolfe et al., 2009). In the PACS, a form was sent home after each lesson stating the topic addressed, the safe decision rules, and associated vocabulary. The information can serve to provide consistency between home and school in vocabulary and may serve to enhance communication between parents and students at home.

Conclusion

The purpose of the current study was to investigate the efficacy of the PACS Curriculum to teach socio-sexuality skills to students on the spectrum. The PACS Curriculum employed instructional strategies such as decision-making processes, explicit instruction and visual strategies to increase safe decision-making. Although a small number of participants took part in the study, the findings represent preliminary evidence of the effectiveness of the PACS Curriculum for teaching socio-sexuality information to students on the spectrum. Using evidence based

instructional practices such as decision-making processes, explicit instruction, and visual strategies, students can learn how to make safe decisions. The PACS Curriculum shows promise for permitting students on the spectrum access to important socio-sexuality information that may promote both protection from abuse as well as self-advocacy skills.

References

- Agran, M., Blanchard, C., Wehmeyer, M., & Hughes, C. (2002). Increasing the problem-solving skills of students with developmental disabilities participating in general education. *Remedial and Special Education, 23*, 279-288. <https://doi.org/10.1177/07419325020230050301>
- American Psychological Association. (2017). Ethical principles of psychologists and code of conduct (2002, amended effective June 1, 2010, and January 1, 2017). <https://www.apa.org/ethics/code/>
- Archer, A., & Hughes, C. A. (2011). *Explicit instruction: Efficient and effective teaching*. Guilford Publications.
- Arthur-Kelly, M., Sigafoos, J., Green, V., Mathisen, B., & Arthur-Kelly, R. (2009). Issues in the use of visual supports to promote communication in individuals with autism spectrum disorder. *Disability and Rehabilitation, 31*, 1474- 1486. <https://doi.org/10.1080/09638280802590629>
- Bellini, S., Akullian, J. (2007). A meta-analysis of video modeling and video self-modeling interventions for children and adolescents with autism spectrum disorders. *Exceptional Children, 73*, 264- 287. <https://doi.org/10.1177/001440290707300301>
- Byers, E.S., Nichols, S., Voyer, S.D., & Reilly, G. (2013) Sexual well-being of a community sample of high-functioning adults on the autism spectrum who have been in a romantic relationship. *Autism, 17*(4), 418–433. <https://doi.org/10.1177/1362361311431950>
- Carnahan, C., Musti-Rao, S., & Bailey, J. (2009). Promoting active engagement in small group learning experiences for students with autism and significant learning needs. *Education and Treatment of Children, 32* (1), 37- 61. <https://doi.org/10.1353/etc.0.0047>
- Conover, W. (1999). *Practical nonparametric statistics* (3rd ed.). Wiley.
- Denne, L. D., Hastings, R. P., & Hughes, C. J. (2018). Common approaches to intervention for the support and education of children with autism in the UK: An internet-based parent survey. *International Journal of Developmental Disabilities, 64*, 105- 112. <https://doi.org/10.1080/20473869.2016.1275439>
- Dukes, E. & McGuire, B. E. (2009). Enhancing capacity to make sexuality-related decisions in people with an intellectual disability. *Journal of Intellectual Disability Research, 53*, 727-734. <https://doi.org/10.1111/j.1365-2788.2009.01186.x>
- Future of Sex Education (FoSe) Initiative. (2012). National Sexuality Education Standards: Core Content and Skills, K- 12. Retrieved on September 5, 2020 at www.siecus.org/resources/national-sexuality-education-standards/
- Ganz, J. B., & Flores, M. M. (2009). The effectiveness of direct instruction for teaching language to children with autism spectrum disorders: Identifying materials. *Journal of Autism and Developmental Disorders, 39*, 75-83. <https://doi.org/10.1007/s10803-008-0602-6>
- Hancock, G., Stokes, M. A., & Mesibov, G. (2020). Differences in romantic relationship experiences for individuals with an autism spectrum disorder. *Sexuality and Disability, 38*(2), 231-245.

- Hickson, L., & Khemka, I. (1999). *Decision making and mental retardation*. In L. M. Glidden (Ed.), *International review of research in mental retardation*, Vol. 22 (pp. 227–265). Academic Press. [http://dx.doi.org/10.1016/s0074-7750\(08\)60135-4](http://dx.doi.org/10.1016/s0074-7750(08)60135-4)
- Hickson, L., & Khemka, I. (2001). *The role of motivation in the interpersonal decision making of people with mental retardation*. In H. N. Switzky (Ed.), *Personality and motivational differences in persons with mental retardation*. Erlbaum
- Hickson, L., & Khemka, I. (2013). *Problem solving and decision making*. In M. L. Wehmeyer (Ed.), *The Oxford handbook of positive psychology and disability* (pp. 198–225). Oxford University Press. <http://dx.doi.org/10.1093/oxfordhb/9780195398786.013.013.0015>
- Hickson, L., Khemka, I., Golden, H., & Chatzistyli, A. (2015). Randomized controlled trial to evaluate an abuse prevention curriculum for women and men with intellectual and developmental disabilities. *American Journal on Intellectual and Developmental Disabilities*, 120, 490-503. <https://doi.org/10.1352/1944-7558-120.6.490>
- Jang, J., Dixon, D. R., Tarbox, J., & Granpeesheh, D. (2011). Symptom severity and challenging behavior in children with ASD. *Research in Autism Spectrum Disorders*, 5, 1028- 1032. <https://doi.org/10.1016/j.rasd.2010.11.008>
- Jones, C. R. G., Simonoff, E., Baird, G., Pickles, A., Marsden, A. J. S., Tregay, J., Happe, F., & Charman, T. (2018). The association between theory of mind, executive functioning, and the symptoms of autism spectrum disorder, *Autism Research*, 11(1), 95- 109. <https://doi.org/10.1002/aur.1873>
- Karal, M. A., & Wolfe, P. S. (2018). Social story effectiveness on social interaction for students with autism: A review of the literature. *Education and Training in Autism and Developmental Disabilities*, 53(1), 44- 58. <https://doi.org/10.1080/20473869.2018.1518809>
- Kellaher, D. C. (2015). Sexual behavior and Autism Spectrum Disorders: An update and discussion. *Current Psychiatry Reports*, 17 (4), <https://doi.org/10.1007/s11920-015-0562-4>
- Khemka, I., Hickson, L., & Reynolds, G. (2005). Evaluation of a decision-making curriculum designed to empower women with mental retardation to resist abuse. *American Journal on Mental Retardation*, 110(3), 193- 204 [https://doi.org/10.1352/0895-8017\(2005\)110<193:eoadcd>2.0.co;2](https://doi.org/10.1352/0895-8017(2005)110<193:eoadcd>2.0.co;2)
- Khemka, I., & Hickson, L. (2006). *The role of motivation in the decision making of adolescents with mental retardation*. In L. M. Glidden & H. M. Switzky (Eds.), *International review of research in mental retardation*, Vol.31 (pp. 73–115). Elsevier. [http://dx.doi.org/10.1016/s0074-7750\(05\)31003-2](http://dx.doi.org/10.1016/s0074-7750(05)31003-2)
- Khemka, I., Hickson, L., Casella, M., Accetturi, N., & Rooney, M. E. (2009). Impact of coercive tactics on the decision-making of adolescents with intellectual disabilities. *Journal of Intellectual Disability Research*, 53, 353-362. <https://doi.org/10.1111/j.1365-2788.2009.01152.x>
- Knight, V. F., Smith, B. R., Spooner, F., & Browder, D. (2012). Using explicit instruction to teach science descriptors to students with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 42, 378- 389. <https://doi.org/10.1007/s10803-011-1258-1>
- Kokina, A., & Kern, L., (2010). Social story interventions for students with Autism Spectrum Disorders: A meta-analysis. *Journal of Autism and Developmental Disorders*, 40, 812- 826. <https://doi.org/10.1007/s10803-009-0931-0>
- Koller, R. (2000). Sexuality and adolescents with autism. *Sexuality and Disability*, 18, 125- 135. <https://doi.org/10.1023/A:1005567030442>

- Meadan, H., Ostrosky, M., Triplett, B., Michna, A., & Fettig, A. (2011). Using visual supports with young children with autism spectrum disorder. *Teaching Exceptional Children*, 43(6), 28- 35. <https://doi.org/10.1177/004005991104300603>
- National Health Education Standards (2007). *National Health Education Standards, Second Edition: Achieving Excellence*. Washington, D. C.: The American Cancer Society. National Institute for Health and Clinical Excellence (NICE; 2012). *Autism: Recognition, referral, diagnosis and management of adults on the autism spectrum [CGI42]*. Author.
- Neely, L. C., Ganz, J. B. Davis, J. L., Boles, M. B., Hong, E. R., Ninci, J., & Gilliland, W. D. (2015). Generalization and maintenance of functional living skills for individuals with autism spectrum disorder: a review and meta- analysis. *Review Journal of Autism and Developmental Disorders*, 3(1), 37- 47. <https://doi.org/10.1007/s40489-015-0064-7>
- Pennsylvania Training and Technical Assistance Network (PATTAN). (2005, August) *Supporting Students with Autism Spectrum Disorder* [PowerPoint slides]. Pennsylvania Department of Education. Retrieved from <http://www.pattan.net/files/Paraed/ParaSummer05/8ASD.ppt>
- Peterson, L., McLaughlin, T. F., Weber, K. P., & Anderson, H. (2008). The effects of model, lead, and test technique with visual prompts paired with a fading procedure to teach "where" to a 13-year-old echolalic boy with autism. *Journal of Developmental and Physical Disabilities*, 20, 31-39. <https://doi.org/10.1007/s10882-007-9077-1>
- Rao, S. M., & Gage, B. (2006). Learning through seeing and doing: Visual supports for children with autism. *Teaching Exceptional Children*, 16, 296- 316. <https://doi.org/10.1177/004005990603800604>
- Ray, F., Marks, C., & Bray- Garretson, H. (2004). Challenges to treating adolescent with Asperger's syndrome who are sexually abusive. *Sexual Addiction & Compulsivity*, 11, 265- 285. <https://doi.org/10.1080/10720160490900614>
- Root, J. R. (2019). Effects of explicit instruction on acquisition and generalization of mathematical concepts for a student with autism spectrum disorder. *Research in Autism Spectrum Disorder*, 57, 1-6. <https://doi.org/10.1016/j.rasd.2018.09.005>
- Rutherford, M., Baxter, J., Grayson, Z., Johnston, L., & O'Hare, A. (2019). Visual supports at home and in the community for individuals with autism spectrum disorders: A scoping review. *Autism*, 1- 23. <https://doi.org/10.1177/1362361319871756>
- Saxe, A., & Flanagan, T. (2014). Factors that impact support workers' perceptions of the sexuality of adults with developmental disabilities: A quantitative analysis. *Sexuality and Disability*, 32, 45- 63. <https://doi.org/10.1007/s11195-013-9314-8>
- Schaafsma, D., Kok, G., Stoffelen, J. M. T., & Curfs, L. M. G (2016). People with intellectual disabilities talk about sexuality: implications for the development of sex education. *Sexuality and Disability*, 35, 21- 38. <https://doi.org/10.1007/s11195-016-9466-4>
- Scott, K. (2019). Teaching the hidden curriculum of group work for students with Autism Spectrum Disorders, *Open Education Studies*, 1, 122- 137. <https://doi.org/10.1515/edu-2019-0008>
- Sexuality Information Education Center of the United States (SIECUS) (2004). Guidelines for Comprehensive Sexuality Education, 3rd ed. Retrieved on September 5, 2020 at www.siecus.org/resources/the-guidelines/
- Sinclair, J., Kahn, L. G., Rowe, D. A., Mazzotti, V. L., Hirano, K. A., & Knowles, C. (2017). Collaborating to plan and implement a sex education curriculum for individuals with

- disabilities. *Career Development and Transition for Exceptional Individuals*, 40(2), 123-128. <https://doi.org/10.1177/2165143416670136>
- Sigman, M., Dissanayake, C., Arbelle, S. & Ruskin, E. (1997). Cognition and emotion in children and adolescents with autism. *Handbook of autism and pervasive developmental disorders* (2nd ed.), 248-265. Wiley & Sons.
- Stoffelen, J. M. T., Herps, M. A., Buntinx, W. H. E., Schaafsma, D., Kok, G., & Curfs, L. M. G. (2017). Sexuality and individual support plans for people with intellectual disabilities. *Journal of Intellectual Disability Research*, 61(12), 1117–1129. <https://doi.org/10.1111/jir.12428>
- Stokes, M. A. & Kaur, A. (2005). High functioning autism and sexuality: A parental perspective. *Autism*, 9, 266- 289. <https://doi.org/10.1177/1362361305053258>
- Strunz, S., Schermuck, C., Ballerstein, S., Ahlers, C.J., Dziobek, I., & Roepke, S (2017). Romantic relationships and relationship satisfaction among adults with Asperger syndrome and high-functioning autism. *Journal of Clinical Psychology*, 73(1), 113–125. <https://doi.org/10.1002/jclp.22319>
- Sullivan, A., & Caterino, L.C. (2008). Addressing the sexuality and sex education of individuals with autism spectrum disorders. *Education and Treatment of Children*, 31, 381-394. <https://doi.org/10.1353/etc.0.0001>
- Tarnai, B., & Wolfe, P. S. (2008). Social stories for sexuality education for persons with autism/pervasive developmental disorder. *Sexuality and Disability*, 26, 29-36. <https://doi.org/10.1007/s11195-007-9067-3>
- Thomas, A., & Thorne, G. (2009). *How to increase higher order thinking*. Los Angeles: Center for Development and Learning. Retrieved on September 9, 2020 at <http://www.cdl.org/how-to-increase-high-order-thinking/>
- Travers, J., Tincani, M., Whitby, P. S., & Boutot, E. A. (2014). Alignment of sexuality education with self-determination for people with significant disabilities: A review of research and future directions. *Education and Training in Autism and Developmental Disabilities*, 49, 232- 247.
- Wehmeyer, M. L., Palmer, S. B., Shogren, K., Williams-Diehm, K., & Soukop, J. (2013). Establishing a causal relationship between interventions to promote self-determination and enhanced student self-determination. *The Journal of Special Education*, 46(4), 195- 210. <https://doi.org/10.1177/0022466910392377>
- Willner, P., Bailey, R., Parry, R., & Dymond, S. (2010). Evaluation of the ability of people with intellectual disabilities to ‘weigh up’ information in two tests of financial reasoning. *Journal of Intellectual Disability Research*, 54(4), 380- 391. <https://doi.org/10.1111/j.1365-2788.2010.01260.x>
- Wolfe, P.S., Condo, B., & Hardaway, E. (2009). Sociosexuality education for persons with autism spectrum disorders using principles of applied behavior analysis. *TEACHING Exceptional Children*, 42, (1), 50- 61. <https://doi.org/10.1177/004005990904200105>
- Wolfe, P.S., Wortalik, J.L. Domire-Monaco, S., & Gardner, S. (2019). Review of curricular features of socio-sexuality curricula for individuals with developmental disabilities. *Sexuality and Disability*, 37, 315- 327. <https://doi.org/10.1007/s11195-019-09585-4>
- Wong, C., Odom, S. L., Hume, K, Cox, A. W., Fetting, A., Kurharczyk, S., Brock, M. E., Plavnick, J. B., Fleury, V. P., & Scultz, T. R. (2014). *Evidence-based practices for children, youth, and young adults with autism spectrum disorder*. The University of North Carolina, Frank Porter Graham Child Development Institute, Autism Evidence-Based Practice Review Group.

About the Authors

Pamela S. Wolfe is an Associate Professor of Special Education in the Department of Educational Psychology, Counseling, and Special Education in the College of Education at The Pennsylvania State University. She has been involved in special education for over 30 years, both as a teacher and researcher in higher education. At Penn State, she is the director of the Professional Development Certificate in ASD. Her research interests include instructional strategies for individuals with severe disabilities and advocacy for individuals with ASD.

Muhammed A. Karal is an Associate Professor of Special Education at Sinop University, Turkey. He received his MS and Ph.D. in the Department of Educational Psychology, Counseling, and Special Education in the College of Education at The Pennsylvania State University. His research interests include effective instructional methods for teaching individuals with developmental disabilities, social interaction, school-to-work transition for students with disabilities, and teacher education.

Jonte' C. Taylor is an Associate Professor of Special Education in the Department of Educational Psychology, Counseling, and Special Education in the College of Education at The Pennsylvania State University. He taught for approximately 10 years with various populations from PreK to Adults in settings ranging from inclusive classrooms to residential treatment facilities. His research interests include science education for students with disabilities, evaluating innovative classroom practices, and bullying issues for students with Autism, Learning Disabilities, and Emotional/Behavioral Disorders.

Author Contact Information:

Pamela S. Wolfe
Associate Professor of Special Education
The Pennsylvania State University
Email: psw7@psu.edu

Muhammed A. Karal, contact author
Associate Professor of Special Education
Sinop University, Turkey
Email: muhammedkaral@gmail.com

Jonte' C. Taylor,
Associate Professor of Special Education
The Pennsylvania State University
Email: jct215@psu.edu

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