

UNIVERSITY OF OKLAHOMA
GRADUATE COLLEGE

IMPROVING THE FIELDWORK SUPERVISION EXPERIENCE WITH MICRO-TRAINING
ON SELF-ADVOCACY AND SELF-EFFICACY

A DISSERTATION
SUBMITTED TO THE GRADUATE FACULTY
In partial fulfillment of the requirements for the
Degree of
DOCTOR OF PHILOSOPHY

By
SARAH N. HEINIGER

Norman, Oklahoma

2025

IMPROVING THE FIELDWORK SUPERVISION EXPERIENCE WITH MICRO-TRAINING
ON SELF-ADVOCACY AND SELF-EFFICACY

A DISSERTATION APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

BY THE COMMITTEE CONSISTING OF

Dr. Brittany Hott, Chair

Dr. Corey Peltier

Dr. Cian Brown

Dr. Kristy Brugar

Dr. Ginevra Courtade

© Copyright by SARAH N. HEINIGER 2025
All Rights Reserved.

Dedication

For my mom, who believed in me even when she did not understand my dreams.

Acknowledgements

This process would not even have been possible without my family. My husband, who allows me to dream big and chase those dreams, cheering me on the entire way. He is my sounding board and my reality check. My children, who did not get nearly as much of their mom as they might have liked over the last five years, but saw her do big things. My dad, who was always happy to take me out to breakfast and talk through my wild ideas about education. Thank you all for helping me achieve one of the goals I have dreamed of since I was a little girl.

And I would not have even been in a doctoral program without Dr. Brittany Hott. She has encouraged and challenged me every step of the way. She has been supportive through all the life tragedies that inevitably seem to strike during a doctoral program and helped me push through to accomplish this enormous life goal. I have done a lot of data marinating in the last few years and she patiently waits for me to get it down on paper. Thank you for your unwavering faith in me.

My fellow doctoral students have become wonderful friends in the midst of one of the hardest things any of us have ever done. Jasmine and I have held each other up semester after semester. Julie has been the absolute best person I could have ever asked for to partner with. Kevin always makes sure I am staying sane, sends me the best encouragement, and challenges me to think harder about our science than anyone else I know. Without you all, I am not sure I would have made it this far, or at the very least not this quickly. Thank you.

Thank you to my friends that I have not seen as much over the last several years. The fact that you remain my friends is a testament to you. I owe you a drink on the patio.

And to those colleagues to whom I have committed projects or tasks that did not get done or that I would meet a deadline that has long since passed...you are saints.

Thank you to my committee who has been nothing but encouraging through this entire process and has challenged me to work outside of the box, try new things, and stretch my thinking.

Table of Contents

LIST OF TABLES	x
LIST OF FIGURES	xi
ABSTRACT	xii
CHAPTER 1: INTRODUCTION	1
Current Practices	2
Current Criticisms and Confusion Related to Fieldwork Experiences	3
Satisfaction with Fieldwork Experience	4
Rural Considerations	5
Study Purpose	6
CHAPTER 2: REVIEW OF THE LITERATURE	10
Fieldwork Experience from the Perspective of the Supervisee	10
Self-Advocacy	12
Self-Efficacy	15
Satisfaction with Fieldwork Experiences	16
Fieldwork Experiences from the Perspective of the Supervisor	18
Supervisees as Research Participants	21
Technologies Used for Training Future Practitioners	22
Behavior Skills Training	23
Technology Based Didactic Training	26
Video Modeling	27
Feasibility of Behavior Skills Training	28
CHAPTER 3: METHOD	31

Participants	35
Setting	39
Variables	39
Independent Variable	39
Dependent Variable	40
Measures	44
Materials	52
Procedures	53
Conditions	53
Moving Between Conditions	54
Generalization	55
Design	55
Conditions	56
Baseline	56
Intervention	57
Maintenance	57
Procedural Fidelity	57
Interrater Reliability (IRR)	58
Data Analysis	58
Conclusion	59
CHAPTER 4: RESULTS	60
Research Question 1	60
Research Question 2	73

Research Question 3	74
Conclusion	75
CHAPTER 5: DISCUSSION	76
Video Rating Using the Task Analysis	76
Video as Model	77
Training Efficiency	78
Self-Efficacy	78
Self-Advocacy	79
Behavior Skills Training	80
Contribution to the Literature Base	81
Limitations	82
Future Directions	83
Conclusion	84
REFERENCES	86

List of Tables

TABLE 1: Participant Demographic Data	37
TABLE 2: Participant Fieldwork Experience Data	38
TABLE 3: Participant Reported Difficulties with Current or Previous Supervisors	39
TABLE 4: Task Analysis for Self-Advocacy with Supervisor	40
TABLE 5: Outline of Micro-Training	41
TABLE 6: Micro-Training Post-Quiz	42
TABLE 7: Scenarios for the Pre-recorded Videos to be Coded by Participants	43
TABLE 8: Pre-Post Assessment of Knowledge of the Components of the BACB Fieldwork Experience	44
TABLE 9: Self-Advocacy Self-Assessment	46
TABLE 10: Supplementary Guide to the Self-Advocacy Task Analysis	48
TABLE 11: Social Validity Interview Items	52
TABLE 12: Results of the Self-Efficacy Assessment of Knowledge of Fieldwork Requirements	60
TABLE 13: Results of Post-Micro-Training Assessment of Content and Confidence in Responses	61
TABLE 14: Results of PND and PAND Calculations	66
TABLE 15: Results of Log Response Ratio Calculations	67
TABLE 16: Alignment of Each Participant's Ratings on Video Task Analysis	68
TABLE 17: Self-Advocacy Rating Scale Scores	71
TABLE 18: Initial Results of Primary Investigator and Expert Coding of Videos	72
TABLE 19: Alignment of Final Role Play Video with Task List Criteria	73

List of Figures

FIGURE 1: Logic Model	8
FIGURE 2: Behavioral Skills Training Steps	24
FIGURE 3: Conceptual Framework	32
FIGURE 4: Theory of Change	33
FIGURE 5: Results of Participant Accuracy Rating of Role-Play Videos Across Sessions	62
FIGURE 6: Discrepancy in Score Between Participants and Investigator Identified Score	69
Per Video	

Abstract

Fieldwork experiences for students pursuing certification in applied behavior analysis can be challenging when a supervisor's behavior does not align with expectations. However, students in these experiences often do not know how to advocate for what they need. This research uses a multiple-baseline single case design to examine an intervention to teach students self-advocacy skills using a micro-training and task analysis. Also examined were self-efficacy skills related to the process of supervision. Results showed an effect of the intervention for two participants and varied effect for two others. Participants found the research to be socially valid. Changes to intervention for efficiency of learning, limitations, and future research directions are discussed.

Keywords: self-advocacy, self-efficacy, fieldwork, behavior skills training

Chapter 1

Introduction

A Board Certified Behavior Analyst (BCBA) applies the science of behavior analysis to human behavior a variety of settings, including providing therapeutic service, education, organizational behavior change, and much more. The Behavior Analyst Certification Board (BACB) defines the basic knowledge and skill set that the professional Behavior Analyst needs to practice effectively through a published task list, which is presently in its 6th edition (BACB, 2022b), and regular newsletter and website updates. Masters level coursework that is approved by the Association for Behavior Analysis International (ABAI) must be completed and 2,000 hours of a supervised fieldwork experience must be accrued to be eligible to sit for the Board Certified Behavior Analyst ® (BCBA) examination offered by the BACB. The BACB also publishes a supervision, training, assessment, and oversight guidance document (BACB, n.d.) and a supervision curriculum outline (BACB, 2018) to support a more systematic experience across candidates.

However, supervision practices vary widely across the field and supervisors tend to engage in practices without very clear guidelines for implementation (Hajiaghamohseni et al., 2021). Despite the topics identified in the test content outline, the BACB does not offer “explicit parameters that describe the process and substance of the supervisory process” (Hajiaghamohseni et al., 2021, p. 98). The BACB does require supervisors to have been practicing for at least one year (or have a supporting supervisor overseeing their supervisory efforts) and complete an 8-hour training based on their Supervision Curriculum Outline (BACB, 2018), but the previous version of this outline did not include much on how to supervise students pursuing a credential. As a result, current students are receiving supervision from a large group

of new supervisors who themselves may not have received training on how to supervise, as it was not explicitly required in the previous version of the outline (DiGennaro Reed & Henley, 2015). Further, ongoing training and continuing education expectations are minimal (Kazemi & Shapiro, 2013), with three supervision continuing education unit hours per two-year renewal period being the only requirement (BACB, 2022a).

Students pursuing certification as a behavior analyst through the BACB can work in a wide variety of settings, but most are situated in (a) private practice Applied Behavior Analysis (ABA) therapy centers working with children with Autism Spectrum Disorder, or (b) public schools coaching school wide behavior or consulting on individual student cases (Brown, 2021; Burning Glass Technologies, 2015; DiGennaro Reed & Henley, 2015; Plantiveau, 2018). Most behavior analyst students begin accruing supervised fieldwork hours concurrent with taking the required master level coursework. To accrue hours, a student must receive direct supervision from a BCBA for at least 5% of the total 2,000 hours (BACB, 2022a). That supervisor may already work for the same employer or the student may need to find another source for supervision, which can require paying a third party (Slanzi & Sellers, 2023).

Current Practices

There is much confusion and uncertainty about requirements, obligations, acceptable experiences, and best practice, as evidenced by routine social media posts (Garza et al., 2018). There is no ongoing supervision of the supervisor to ensure high quality supervision is taking place. Most practicing BCBAs that are providing supervision are overworked and have little time for supervision beyond the minimal requirements (Plantiveau et al., 2018). They also have not generally received training in instructional design or curriculum design, both of which would benefit the supervisor who is not provided with a comprehensive curriculum for supervision

(Sellers et al., 2016). Even so, the BACB is expecting that supervisors craft a high-quality experience based on an outline and their own potentially minimal experience. A recent survey of 280 BCBAs reported that they have provided supervision for a mean of 5.68 years (range 1-37 years; Sellers, et al., 2019). However, since the publication of that article there have been an additional 26,767 certificants added to the registry (BACB, 2023b), which means 59% of current certificants have been practicing for five or fewer years.

Current Criticisms and Confusion Related to Fieldwork Experiences

Perhaps owing to the confusion and uncertainty about fieldwork requires, there are recent reports of inconsistency across experiences (Parry-Cruwys et al., 2022; Parry-Cruwys & MacDonald, 2021). Many trainers of behavior analysis students have reported lacking supervision experiences (DiGennaro Reed & Henley, 2015). Either supervisors are minimally present, the experiences are not robust or comprehensive enough, are too narrowly focused on one avenue of practice, or the supervisors themselves do not know the requirements (Sellers et al., 2016). DiGennaro Reed and Henley (2015) report that most BCBAs do not have access to training on how to conduct effective supervision. In addition, students working in schools have a more difficult time finding a supervisor for their setting, due to lack of BCBAs working in their school district, district policies about visiting professionals, difficulty finding a local supervisor who has experience in the school setting, and prohibitive cost of supervision (Slanzi & Sellers, 2023).

There is also a great deal of confusion on the part of the supervisee about the expectations and requirements. They often do not understand what makes for a high-quality experience or how to engage with their supervisor to get their needs met, despite already accruing supervision hours (Parry-Cruwys et al., 2022; Parry-Cruwys & MacDonald, 2021). Hajiaghamohseni et al.

(2021) recently surveyed practicing supervisors and found a wide range of compliance on supervisor engagement in recommended practices, but that they did so more often when expectations and guidelines are clearly presented. More and more BCBAs are hanging their shingle online to provide virtual supervision in response to the dearth of available, local, high quality supervision opportunities (Simmons et al., 2021). Despite recent efforts to improve the behavior of supervisors, including a special issue of *Behavior Analysis in Practice* (LeBlanc & Luiselli, 2016), multiple peer-reviewed articles offering suggestions for best practice (e.g., Garza et al., 2018; Hartley & Dubuque, 2023; Hartley et al., 2016; Irwin Helvey et al., 2022; Turner et al., 2016; Sellers et al., 2019) and texts (Kazemi et al., 2018; LeBlanc et al., 2020) it appears minimal impact has been made to the actual practice of supervision. There is an evident need to improve supervision practices (Kranak et al., 2023). There may be alternative approaches that have been examined by other fields as well as ABA, namely approaching the problem by training the supervisees in specific skills to improve their experience.

Satisfaction with Fieldwork Experience

Satisfaction with a workplace experience has been linked to constructs related to successful performance and longevity of participation in a field, including self-advocacy and self-efficacy skills (Bodenhorn et al., 2010; Rauf et al., 2020; Yu et al., 2015; Zee & Koomen, 2016). Several fields have examined the aspects of the job or personal characteristics that are linked to workplace satisfaction. For teachers in particular, increased job satisfaction has been linked to increased ratings of self-efficacy (Caprara et al. 2006; Demir, 2020; Granziera & Perera, 2019; Emin Türkoğlu et al., 2017; Wang et al., 2015). For teachers in training, receiving descriptive feedback on their performance and practical teacher skills during their practicum experiences improved their self-efficacy (Black, 2015). Mastery experiences in practicum for

preservice teachers are also associated with increasing feelings of self-efficacy (Ma & Cavanagh, 2018; Pfitzner-Eden, 2016). Similarly, a longer pre-service practicum experience is linked with increased feelings of self-efficacy (Colson et al., 2017). Examining satisfaction with a fieldwork experience can come from a direct examination of self-advocacy and self-efficacy, along with other constructs, and is an area that needs to be examined in the behavior analytic research.

Rural Considerations

Rural educational settings are attended by approximately 19% of students in the United States (National Center for Education Statistics, 2023a); 14% of whom live below the poverty line (National Center for Education Statistics, 2023b), about half of whom are eligible for subsidized lunch programs, and 14% of whom qualify for special education services (Showalter et al., 2019). Rural settings are often characterized by having less access to high-quality healthcare for physical and mental health needs than other communities (Arnold, 2005; Gamm & Hutchison, 2003; Glasgow, et al., 2004; Oram et al., 2016) and children in particular are less likely to receive intervention to support mental and behavior health needs (Calloway et al., 1999; Oram et al., 2016). In addition, the higher rates for suicide and suicide attempts in rural communities than in metropolitan areas (Centers for Disease Control and Prevention, 2023) may be due to rural communities being less likely to indicate their need for mental health supports (Hirsch & Cukrowicz, 2014; Oram et al., 2016). There is a need for increased access to behavioral health services that a BCBA can provide in educational settings.

There are several barriers that result in sufficient access for children in rural schools to mental and behavioral health care, including limited financial resources and support systems, as well as geographic isolation from service providers. Funding formulas for school districts are generally based on population counts, which for rural schools is often a small number (Oram et

al., 2016). Finding appropriately trained and highly qualified staff (like school psychologists and behavior analysts) can be difficult for rural schools (Oram et al., 2016). For professionals already committed to working in rural schools, providing high-quality fieldwork supervision experiences leading to certification as a BCBA can help reduce attrition and ensure professionals with advanced training remain in rural schools (Bethune & Kiser, 2017). The high needs experienced by students in these settings can be better served by professionals with technical knowledge who can serve as local experts and consultants (Benazzi et al., 2006). Geographical isolation is also an issue for rural schools when receiving behavioral and mental health supports. Professionals often have to travel long distances to support their students as they typically serve several school districts (Oram et al., 2016). It is also difficult for school-based professionals to receive in-person professional development (Berry et al., 2011), which makes virtual training a viable option that needs further examination for effectiveness with this group of professionals in training.

Study Purpose

Due to the dearth of measurement related to these constructs in applied behavior analytic fieldwork, additional research is warranted to examine the relationship between skills of self-efficacy, self-advocacy, and satisfaction with experience. Many specific behaviors have been identified in the literature of other fields, specifically by Trusty and Brown (2005), that align with predictors of satisfaction assessed by Gupta et al. (2010). Communication skills and problem solving skills (i.e., key skills within the self-advocacy skill set) and organizational skills and knowledge of parameters (i.e., key skills within the self-efficacy skill set) may be directly trained to impact the satisfaction with and ultimately the successful completion of a fieldwork experience.

Within behavior analysis, specific behaviors for a high-quality supervision experience have been extensively recommended, including soft skills and professional judgement (Andzik & Kranak, 2021); improving and developing processes and systems (Aubrey Daniels Blog, 2015); leadership skills like running a meeting well, delegating, and creating buy-in (Bailey & Burch, 2010); integrating ethical decision making into supervisory experiences (Brodhead & Higbee, 2012); changing the behavior of others using techniques like asking questions instead of giving orders, letting the other person save face, giving lavish praise, and making other people happy to do things for you (Carnegie, 1981); the competencies necessary for clinical supervision as an integration of knowledge, skills, attitudes, and values (Falender & Shafranske, 2004); maintaining clear and effective supervisor-supervisee relationships and a structured experience with defined competencies through evaluation and feedback (Irwin Helvey et al., 2022); creating a setting in which people want to work (Lattal, 2012); using and teaching evidence-based practices in training settings (Lerman et al., 2004; Parsons et al., 2012; Reid et al., 2021); effectively detecting and addressing any barriers to the supervisory experience (Sellers et al., 2016). However, these skills have rarely been experimentally examined (Kranak, et al., 2023). These all require specific examination within the context of behavior analysis fieldwork.

The purpose of the current study is to examine the constructs of self-advocacy and self-efficacy from a behavioral lens as they can be applied to the fieldwork experience of students seeking a behavior analyst credential using single-case research. Minimal research has been conducted on the experiences of students in fieldwork or internship settings in the social sciences, and almost none in the specific field of behavior analysis. Teaching some content knowledge to support self-efficacy in the fieldwork experience paired with teaching self-

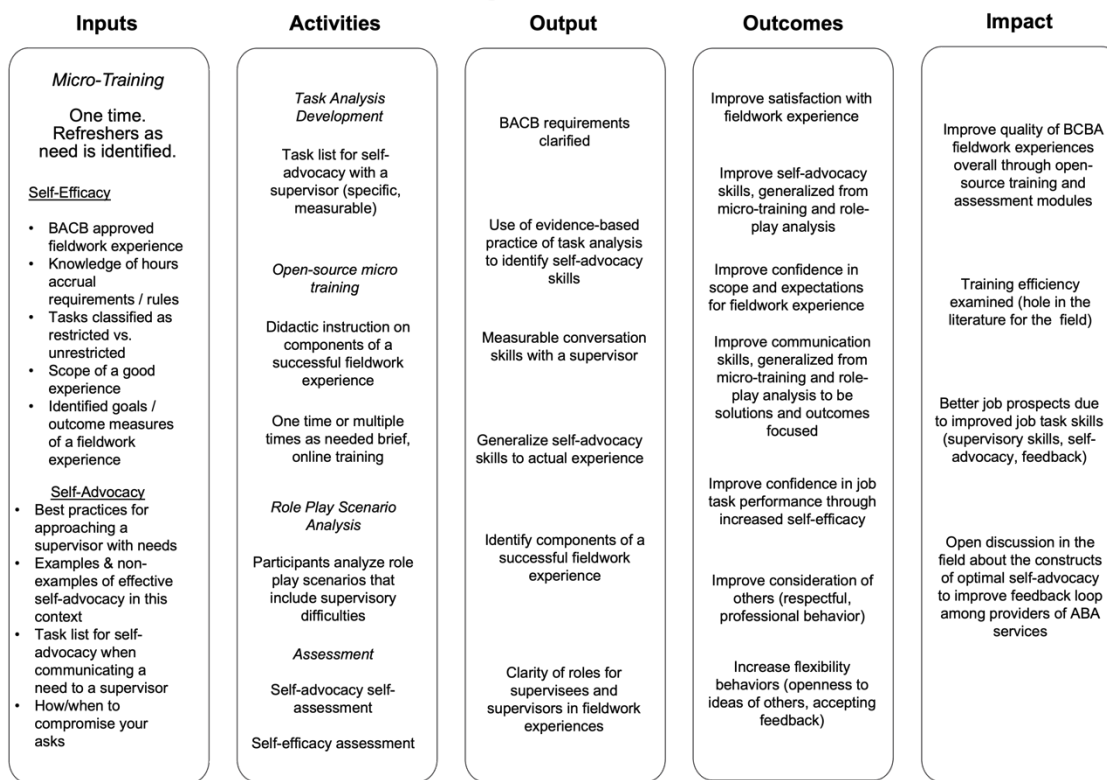
advocacy skills via a task analysis and micro-training could improve the experience for fieldwork students.

This study will investigate whether fieldwork students can be taught self-advocacy skills (quickly, with low cost and low response effort) and whether that makes a difference in the quality of their fieldwork experience. Traditional behavior skills training can be very time consuming, especially with the vast numbers of current supervisees and potential future supervisees. While didactic training alone has been shown to be ineffective (Parsons et al., 2012), didactic training combined with repeated practice and a task analysis could be a shorter, easy to implement, and easily shareable (i.e., open source) intervention. More specifically, the proposed research will examine whether a functional relation can be established between a brief, video-based, online micro-training on self-advocacy and self-efficacy and supervisee ability to identify appropriate self-advocacy behaviors in the fieldwork supervision context. This is work that could make an impact in the broader field at large to produce higher quality Board Certified Behavior Analysts (See Logic Model below in Figure 1).

Figure 1

Logic Model

Logic Model



I was interested in determining if (1) a functional relation can be established between a virtual, micro-training and accurate identification of components of a self-advocacy task list in short video vignettes by fieldwork students, (2) the micro-training and its effects are socially valid for participants, and (3) if the self-advocacy skills can be taught to competency using didactic training and a task list in isolation or if additional coaching is required. Due to the lack of knowledge on the part of the supervisee and the seeming lack of effective intervention to change supervisor behavior, it is hypothesized that training the supervisees directly could potentially bridge this gap. Chapter Two provides a review of the literature that explores those concepts in more depth.

Chapter 2

Review of the Literature

The applied behavior analysis (ABA) field takes the principles of behaviorism and the findings of experimental analysis of behavior and translates them into technologies of practice in a wide variety of settings (Cooper et al., 2020). These practices are regularly used in clinical applications (Fisher et al., 2021; Roane et al., 2016), in education (Horner & Sugai, 2015), and to train adults on job specific tasks (Reed & Henley, 2015). The basic concepts of applied behavior analysis (i.e., reinforcement, punishment, contingencies, objective measurement, motivating operations) are used to teach new skills and strengthen existing skills in the workforce across multiple industries (Gelfand et al., 2017; Jundt et al., 2015). And while much discussion and advice has been given around using those same technologies for students pursuing a certification in behavior analysis in their fieldwork experience, there is a dearth of empirical research on the fieldwork experience (Kranak et al., 2023; see Conceptual Framework in Figure 3).

Fieldwork Experience from the Perspective of the Supervisee

Not only is there a dearth of research on the fieldwork experience in general, but it is even more noticeable that there is a lack of peer-reviewed work published from the perspective of the supervisee who is engaged in the fieldwork experience(s) (Kranak et al., 2023). Related fields, such as counseling, occupational therapy, education, and psychology, have examined the supervisee's experience from the lens of self-advocacy, self-efficacy, and satisfaction with their experiences overall, which could be construed as components of a supervisee skill set necessary for a successful fieldwork experience (Doherty et al., 2016).

Doherty et al. (2016) examined the impact of a communication competency training intervention on the self-advocacy skills of nursing students in a quasi-experimental pretest-

posttest design. The authors used a previously existing instrument for nurses in the workplace that measures behaviors counterproductive to a nurse's ability to advocate for themselves and the improvement of the health care system in which they work. The communication training involved PowerPoint directed lectures, video presentations, group discussions, and role plays to teach skills like making assertive statements and identifying and solving problems or challenges in the workplace. They found that the communication competency training did decrease the beliefs that counteracted self-advocacy skills with what they called "medium effort" (p. 254) in terms of training time, but even noted aspects of the training that could be improved, including adding more active learning techniques and a simulation style role play experience.

Bodenhorn et al. (2010) examined the correlation between school counselor's self-efficacy and their alignment with a program of doing school counseling and their awareness of an achievement gap amongst the students with whom they worked. They found that counselors who aligned themselves with a theoretical perspective had higher self-efficacy and also were more aware of and more likely to report a narrowing in achievement gaps. Cara (2000) provided pre-practicum occupational therapy students an educational module that taught self-management strategies with the hopes of reducing participant anxiety and increasing self-efficacy, self-esteem, and final practicum competency scores. However, the modules did not have a significant effect on those traits. Reese et al. (2009) examined how receiving feedback from clients in psychotherapy training impacted counselor's self-efficacy. When compared with participants who did not receive any client feedback, counselors in training who did receive daily feedback from clients on their progress using a structured tool had stronger self-efficacy ratings. Black (2015) examined the effect that reflections (both in the midst of the process and summative) had on teacher candidates' self-efficacy. Teacher candidates reported improvement in their self-

efficacy in the areas of effective classroom management, curriculum planning and implementation, rapport building with students, and using feedback as a direct result of engagement in self-reflection practices.

Self-Advocacy

Although self-advocacy originated from individuals with disabilities and their families advocating to address needs, the term has evolved to any person fighting for themselves to get their rights and needs met in a variety of circumstances. The term has not been applied to professionals in the field of applied behavior (the focus has been primarily on self-advocacy for recipients of intervention) but it has been applied to similar professions like school counseling (Clemens et al., 2011; Riggs, 2020), interior design architecture (Rauf et al., 2020), teaching (McGrath et al., 2010; Walker et al., 2021), and nursing (Dounavi et al., 2019).

Clemens et al., (2011) developed and validated an instrument to assess the self-advocacy skills of a school counselor, specifically related to their roles and programs. The authors had not found an instrument suitable for use in their profession at the time of development and saw the importance of this construct in practice. The strongest correlation among items was found between the relationship quality and use of advocacy skills. Riggs (2020) also examined school counselors' self-advocacy skills, but looked at the relationship between perceived skills and how well they implemented school counseling programs in their setting according to the School Counselor Program Implementation Survey (SCPIS). A moderate statistically significant relationship was found between those two variables. In addition, a small statistically significant relationship was found between experience in the profession and perceived self-advocacy.

Rauf et al. (2020) explored the self-advocacy behaviors and barriers encountered by first year interior design architecture students and examined whether a workshop teaching self-

advocacy behaviors improved their performance and reduced attrition in their program. The authors found that those students who participated in the workshop were able to use self-advocacy skills in a high-pressure situation (jury presentation of a final project) resulted in higher grades than peers who did not participate in the workshop and also resulted in an improved viewpoint of their future in the field (via social validity interviews).

Walker et al. (2021) provides self-advocacy strategies for teachers engaged in the special education and Individualized Education Program process, as well as linking collaboration to feelings of self-efficacy. McGrath et al. (2010) provide both self-advocacy and self-efficacy techniques for teachers to work more effectively with the paraeducators in their classrooms.

In the context of school counseling, Clemens et al. (2011) define self-advocacy as “the ability to effectively communicate, convey, negotiate, or assert information about ideal school counselors’ roles to those with the ability to change the circumstances that contribute to the problem or inequity” (p. 34). This aligns well with the current examination of satisfaction with and receipt of a high-quality supervision experience. The fieldwork student needs to be able to engage in all those skills to ensure they are receiving an ideal experience or seek support from someone who can actually help them to change the situation.

Measuring self-advocacy has likewise not been applied yet to professionals in the field of applied behavior analysis but has for those in similar professions. Clemens et al. (2011) developed a tool to measure the self-advocacy efforts of school counselors in relation to their building principals. They based their self-advocacy construct on the work of Trusty and Brown (2005), who broke the construct of advocacy into the categories of dispositions, knowledge, and skills. Their work was around advocacy for others, but many of the same concepts could be applied to self-advocacy as well. Having a disposition of advocacy revolves around being

altruistic and autonomous in thinking and behavior, as well as having a high value for professional ethics. The knowledge component of the construct of advocacy includes knowledge of resources, parameters (i.e., scope of practice), dispute resolutions mechanisms, advocacy models, and systems change. This is a broad scope of knowledge that is described directly in relation to the school counselor's work but remains relevant as well for those working in most therapeutic professions. Finally, skills required for effective advocacy include communication, collaboration, problem-assessment, problem-solving, organizational, and self-care skills.

These skills apply to self-advocacy and are often reported as issues with burnout and attrition in the field of behavior analysis (Dounavi et al., 2019). The skill of communication is highlighted in the field of nursing by Doherty et al. (2016) in developing a nursing student's ability to reduce their errors and promote a working environment in which they are valued and engaged. Rauf et al. (2020) found that architecture students equipped with the skills of self-advocacy perform better and have relatively higher levels of success in their studies and future jobs than similar peers who lacked those skills. Walker et al. (2021) outlined content knowledge of the law and best practices with which a special education teacher must be proficient in order to self-advocate for shared responsibility of classroom and behavior management. In a field where the future professionals will be directly impacting the lives of vulnerable populations, the ability to self-advocate for a quality fieldwork experience seems to be important based upon work done in other fields with similar populations (i.e., students pursuing a professional therapeutic degree). Riggs (2020) found a direct link between a counselor's self-advocacy skills and the adequacy of implementation of a comprehensive school counseling program. Another link to self-advocacy is a person's relative self-efficacy in the skills important to that context or profession.

Self-Efficacy

Bandura (1977) originally defined self-efficacy as "the conviction that one can successfully execute the behavior required to produce the outcomes" (p. 193) and then further refined his definition as, "a generative capability in which component cognitive, social, and behavioral skills must be organized into integrated courses of action to serve innumerable purposes" (Bandura, 1986, p. 122). Bodenhorn et al. (2010) elaborated the definition to include "beliefs about one's own ability to successfully perform a given behavior" (p. 166). As a person experiences more success in their career, feelings of self-efficacy increase, while failures lead to decreased feelings of self-efficacy (Tschannen-Moran et al., 1998), which are the factors that tend toward increasing or decreasing behaviors from the perspective of reinforcing and punishing contingencies.

Formation of self-efficacy begins during training for a career, being shaped during internship or apprenticeship experiences. Bandura (1977) theorized that self-efficacy could be developed through vicarious experiences (observing the successes and failures of others), mastery experiences (previous contact with success), physiological and affective states (emotions and somatic responses associated with experiences), and social persuasions (feedback received from others). Given the high reports by early career practitioners of "imposter syndrome," beginning to develop self-efficacy in professional skills during fieldwork experiences seems warranted (Nedegaard, 2017). Self-efficacy should start in the supervision experience with confidence in understanding the process and having a grasp on an expected outcome. The number of years of experience a supervisee has prior to beginning their experience may impact their feelings of self-efficacy, as they have had a chance to experience more possible mastery experiences (or the inverse). Additionally, the feedback provided by the supervisor can impact

feelings of self-efficacy via social persuasion. If the supervisee is a part of a group supervision experience, they may be building or tearing down self-efficacy in observation of or in comparison to peers. Finally, feelings of self-efficacy for supervisees could also be impacted by the feelings they associate with their experience thus far (i.e., anxiety, stress, joy, excitement; Ruble et al., 2011).

Self-efficacy likewise has not been examined specifically in the field of behavior analysis but has been in similar professions. Ruble et al. (2011) examined the self-efficacy of special education teachers of young children with Autism using a self-efficacy scale specifically developed for teachers. They found that years of experience and social persuasions were not correlated with feelings of self-efficacy (with a caution that due to a small number of participants, power was not achieved), but that physiological/affective states were negatively correlated with feelings of self-efficacy. The authors surmised that self-efficacy was potentially mediated by support from others but that burnout, which they were examining as essentially the opposite of self-efficacy, was related primarily to feelings “on the ground in the classroom” (p. 72).

Satisfaction with Fieldwork Experiences

In behavior analysis, satisfaction with an experience (typically an intervention in the context of therapy or education) is a component of the broader idea of social validity. Social validity was introduced as a concept by Wolf (1978) as the user’s experience of an intervention program, namely how significant the goals were, whether or not the procedures were socially appropriate, and whether the effects of the intervention or program were of social significance to the user. This was initially examined to close the gap between the highly clinical and objective measurement behavior analysts were using and the subjective feelings about intervention on the

part of the consumers of those interventions (Winett et al., 1991). Assessing for social validity serves to examine whether consumers will continue to participate in an effective intervention even after the researchers have completed their work. If those intervening on the behavior do not have buy-in, even when behavior change has occurred due to the intervention, it is not likely that they will continue to administer the intervention (Stolz, 1981). Social validity is vital for behavioral intervention innovation (Rogers, 1983) and incorporating the preferences and best practices of a particular community (Winett et al., 1991). Discussions in the early 1990s called researchers back to Wolf's (1978) original intent and to improve the technology of social validity assessment (Schwartz & Baer, 1991) by improving psychometric rigor of the assessments, increasing meaningful consumer involvement in intervention implementation, looking beyond the immediate consumer for social validity input, and examining more underrepresented populations.

Since those early discussions of the importance of social validity, several systematic reviews have been conducted examining the use of social validity measures in behavioral research. Kennedy (1992) conducted a review of social validity in the *Journal of Applied Behavior Analysis (JABA)* and *Behavior Modification (BM)*. Carr et al. (1999) expanded Kennedy's work and examined publications in JABA from 1968 through 1998 for use and reports of social validity. Both of these initial reviews found few reports of treatment acceptability in the early 1970s and 1980s, and while this practice increased in the 1990s, still only 25% of articles published in JABA reported on social validity measures (Ferguson et al., 2018). Another review was conducted on JABA, identified as the flagship journal of Applied Behavior Analysis in 2018 by Ferguson and colleagues from 1999 to 2016. They found that social validity was only measured in 12% of articles during those years, despite frequent

beseeching to increase the use of this measurement by researchers (Baer & Risley, 1987; Detrich, 2018; Hanley, 2010; Schwartz & Baer, 1991; Strain et al., 2012) and editors of JABA (Hanley, 2017). There have been relatively few articles published that have implemented an intervention to impact a student's fieldwork experience, but of those that did (see below systematic review), only two measured the social validity of participants' experience with the intervention.

Other fields have measured satisfaction with supervision experiences, not specifically using the lens of "social validity," but examining a similar construct under different terminology. Gupta et al. (2010) examined the factors related to internship satisfaction through a survey that asked about positive experiences in the internship, the environment, job prospects, new skills developed, comfort with the work environment, and communication skills. They found that feeling positive about the experience, enjoying the work environment, and developing new skills were the strongest factors in predicting satisfaction with an internship experience. The positive statements centered largely around doing "worthwhile" activities, having the "right amount of one-on-one time" with their supervisor, and feeling comfortable talking to their supervisor (p. 31). Interestingly, Hajiaghamohseni et al. (2021) reported that 23% of respondent BCBAs reported having no allotted time to conduct supervision and a wide variety of practices in terms of implementation of fieldwork activities. In addition to self-ratings, satisfaction with an experience may well be measured by the number of face-to-face interactions with a supervisor, the number of minutes spent with a supervisor, or the quality of those interactions (i.e., feelings of comfort). At present, satisfaction with supervision has not been examined directly in the applied behavior analytic research.

Fieldwork Experience from the Perspective of the Supervisor

A recent systematic review conducted by Kranak and colleagues (2023) found that despite being a relatively recent area of interest in behavior analytic peer-reviewed journals, 50% of the articles published about the supervision experience ($n = 20$, 50%) were practitioner articles or discussion-style articles. Of those 20 identified research articles, only two had supervisees as the target audience or participants. There were 10 (25%) survey-based studies (including one mixed methods study), and 10 intervention studies (of which 70% ($n = 7$) were unpublished theses or dissertations). The vast majority of articles centered on the supervisor as the candidate for behavior change and all used multiple baseline single case designs.

One published article (including two studies) focusing on the supervisor as participant included studies on supervisor feedback procedures with three supervisors as participants (study 1) and provision of feedback to supervisees using video modeling with voiceover with 5 supervisors as participants (study 2; Carroll et al., 2022) and found that feedback accuracy improved and maintained for a month post-research. Another four unpublished works (dissertations) included supervisors as participants (Cruz, 2019; Yakich, 2020; Greeny, 2021; Hunsinger-Harris, 2020). Cruz (2019) examined the impact of behavior skills training on the supervision of discrete trial training with 5 participants and found that the measured behaviors improved compared to baseline. Yakich (2020) also looked at feedback on supervisee behavior by using a multiple-baseline with reversal design to examine the impact of a public posting of feedback on implementation of supervisory skills, which increased for all participants but one, who required additional vocal feedback. Similarly, Greeny (2021) incorporated the idea of a more structure experience by examining the impact of a structured supervision tool during meetings with their supervisees on the use of recommended supervision practices with four participants, which did increase with both the tool and additional training sessions. Unlike the

other studies which included supervisor/supervisee interactions, Hunsinger-Harris (2020) used an online self-paced program to teach culturally sensitive verbal behavior to three participants, which improved over baseline rates and was found to be socially valid by participants.

Two unpublished studies used both supervisors and supervisees as participants. Bowhers (2020) examined the effects of goal setting, feedback provision, and prompt provision on procedures and outcomes with six supervisors and six supervisees. Hawkins (2019) examined the effect of behavior skills training on the implementation of supervisory skills with two supervisors and five supervisees. Corrective feedback and empathetic statements both reached mastery criteria for supervisors but supervisee ratings of their supervisor's behavior did not change from pre- to post-test.

The two published articles with supervisees as participant included a multiple baseline study on fieldwork data entry using an online self-paced training program as the intervention. Atkinson et al. (2023) successfully trained 22 participants to meet criteria for monthly and daily fieldwork log completion. Another multiple baseline study on fieldwork data entry (Parry-Cruwys et al., 2022), but using behavior skills training as the intervention, had 13 participants of which 11 showed improvement over baseline performance and 10 upheld the skills in maintenance. One unpublished study (Piazza, 2021) used a multiple baseline design to examine the effect of behavior skills training on the assessment of ethics scenarios with nine participants, all of whom met mastery criteria which maintained over time.

Kranak et al. (2023) suggested that future researchers should examine the suggestions made by Helvey et al. (2022) and examine the effectiveness of teaching strategies within the context of the fieldwork experience on the actual behavior of the supervisee (much like

examining the change in outcome measure data for students when applying interventions to teacher behavior).

Supervisees as Research Participants

Taking the work of Kranak (2023) a step further, Heiniger (in process) examined the extent to which supervisees in fieldwork experiences have served as participants in experimental, quasi-experimental, or single-case research in behavior analysis and related fields (social work, school psychology, school counseling, mental health counseling, and occupational therapy) in a scoping review of the literature. Of the nineteen ($N=19$) studies identified that met criteria (intervention research that included fieldwork students as participants), eight ($n=8$) were unpublished dissertations or theses and eleven ($n=11$) were published in peer reviewed journals.

One article (Parry-Cruwys et al., 2022) was from the field of behavior analysis and focused on teaching fieldwork students how to correctly log their fieldwork hours using behavior skills training. Eleven ($n=11$) studies came from counseling or school counseling fields and focused on a variety of aspects of the supervisory process, including improved competence in basic counseling behaviors given different types of feedback (Calley, 2001; Chapman et al., 2011; Jumper, 1998; Prignano, 1985; Wilbur & Roberts-Wilbur, 1994), using a peer consultation model to improve self-efficacy and satisfaction (Crutchfield & Borders, 1997), general satisfaction with the experience (Calley, 2001), wellness of the self (Meany-Walen et al., 2016), the impact of video-based feedback on the supervisory experience (Milne & James, 2002), the impact of feedback on self-efficacy and anxiety levels (Jumper, 1998), supervisees perspective on their supervisors based on a training about the purpose and process of supervision (Bahrack, 1989; Prignano, 1985; Schult, 1994).

Two studies from the school psychology literature had supervisees as participants. Newman et al. (2002) used brief video trainings to improve communication skills, consultation skills, self-efficacy, and the supervisee's satisfaction with the fieldwork experience. Guiney & Zibulsky (2017) also examined self-efficacy and satisfaction with the experience, but used a 15-week course in consultation as the intervention. Reese et al. (2009) authored the one ($n=1$) article from the psychology literature that focused on improving the supervisee's satisfaction with the supervision process, self-efficacy, and client treatment using a continuous feedback measure. Three articles from the social work literature examined supervisee satisfaction with the fieldwork experience (Deal & Clements, 2006; Ziera & Schiff, 2010) and supervisee self-efficacy (Baker, 2006). Finally, Cara (2000) examined how an educational model for self-management could improve anxiety levels and self-esteem for occupational therapy fieldwork students.

Other fields have published in peer reviewed journals about the supervision process much more fully. And while the research that includes intervention studies are minimal, Heiniger (in process) found many more ($n=87$) that examined a construct related to self-efficacy in fieldwork or satisfaction with the fieldwork experience using a qualitative or correlational research design. No articles examined self-advocacy as a part of the fieldwork experience in any field.

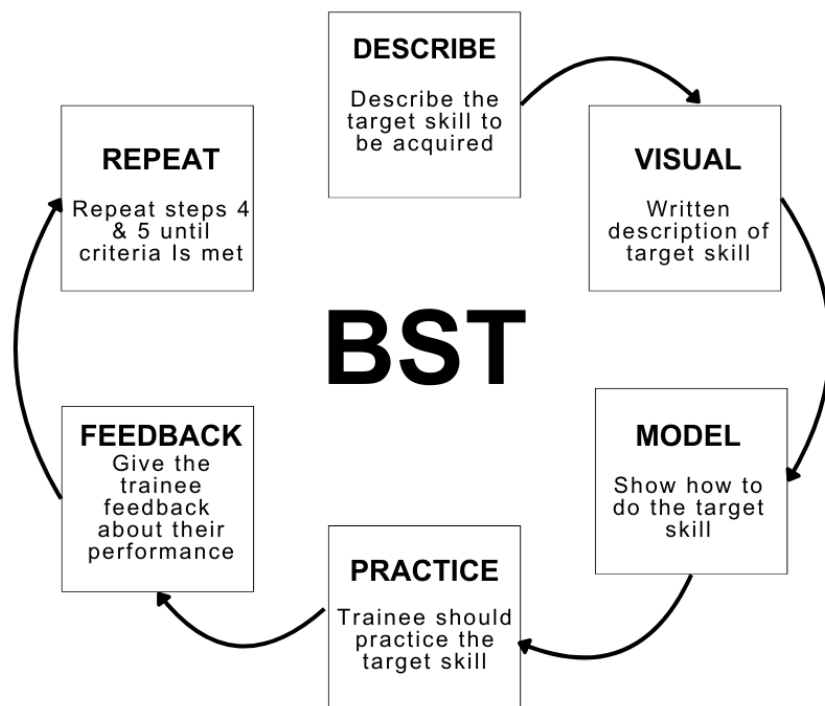
Technologies Used for Training Future Practitioners

Students who are in their fieldwork experience as defined by the Behavior Analyst Certification Board (BACB, 2022a) are regularly learning new skills. As such, they must start at the beginning of skill development. It is of utmost importance that students are learning to implement skills with procedural integrity and implement an intervention as is designed or recommended in best practice or evidence-based practice (McIntyre, et al., 2007), as their future

careers can dramatically impact the lives of individuals who are members of vulnerable populations (Fryling, et al., 2012; McIntyre et al., 2007). In order that even moderate procedural fidelity is achieved when implementing interventions for students, an extensive amount of instruction, coaching, training is needed, which then translates to a significant amount of time on the part of the supervisor (Stahmer et al., 2015). And while even just perceived support from a supervisor can improve a special educator's outlook on their job (Dounavi et al., 2019; Schwartz, 1996), the various aspects of supervision described below do take a significant time commitment to deliver.

Behavior Skills Training

Behavior Skills Training (BST) is a set of procedures used to systematically train a new skill, often used to teach persons with disabilities (Sarokoff & Sturmey, 2004) or in problem behavior reduction procedures (Miles & Wilder, 2009), but also when training staff on a new job-related skill (McGimsey & Greene, 1995; Parsons et al., 2012; Parsons & Reid, 1995). Parsons et al., (2013) suggest the following six steps for a BST model for staff training: (1) describe the behavioral skills (target) to be acquired, (2) give the trainee a written description of the skill, often in the form of a task analysis, (3) model the target skill, (4) have the trainee practice the skill, (5) give feedback about performance in practice, (6) repeat steps four and five until mastery criteria has been met (see Figure 2). BST is generally considered to be one of most effective methods for training new behaviors to a variety of persons and roles in a variety of settings (DiGennaro Reed et al., 2018) and has been researched extensively over the past several decades to that end (Maffei-Almodovar & Sturmey, 2018; Miltenberger, 2011; Parsons et al., 2012).

Figure 2*Behavioral Skills Training Steps*

ABA has long used behavior skills training to teach adults new skills. Courtemanche et al. (2021) used behavior skills training to teach large groups of behavioral technicians skills like discrete-trial teaching (DTT) to between 85-100% correct implementation. Fetherston and Sturmey (2014) replicated previous research using behavior skills training to teach staff various teaching procedures (i.e., discrete trial teaching, incidental teaching) and found positive changes in behavior across staff and clients, as well as positive social validity data. Ward-Horner and Sturmey (2008) used BST to teach parents the procedures to conduct discrete trial teaching to their children. Smith and colleagues (2022) examined the effects of first didactic training and then behavior skills training for staff conducting preference assessment, and found that while didactic training improved skills to about 60-75% implementation, BST increased skills to 90-

100% implementation. Sobeck et al. (2020) used an alternating treatment design to compare didactic instruction and performance feedback when training paraeducators on behavioral strategies and found performance feedback to be more effective when each intervention was applied equally.

Brock and Carter (2015) evaluated the components of a training package for paraeducators that consisted of a didactic workshop, video modeling, and brief coaching (the first three components of behavior skills training). They found that while the workshop did have some enduring effect on behavior, video modeling was statistically significantly more effective, and even more so when combined with follow up coaching. Robinson (2011) trained paraeducators on Pivotal Response Treatment using a training package consisting of modeling and video-based feedback to good effect for both para-educator skill development and increased demonstration of skills for the students with whom they worked. Robinson found this training model to be relatively efficient, and hypothesized this was because training took place in the natural environment. Despite these positive findings for BST, when looked at in actual practice, there is variability in implementation fidelity of BST procedures and general use of empirically supported staff training procedures due to a number of factors (DiGennaro Reed & Henley, 2015).

Components of BST have been used with increasing effectiveness as each piece of the procedure is added on when training support staff (behavior therapists, behavior technicians, para-educators). However, the issue remains that complete and formal BST is time consuming and expensive (Marano et al., 2020). While the number of Board Certified Behavior Analysts (BCBAs) in the field increases exponentially each year, most of those have been practicing for five or fewer years (BABC, 2023). The number of BCBAs certified has increased by nearly

200% in the last five years (from 32,000 at the end of 2018 to 62,800 as of June 30, 2023; BACB, 2023b). The BACB has a stipulation that anyone who has been practicing for less than a year can operate as a supervisor as long as they have a mentor supervisor in place (BACB, 2022a). This leaves a deficit of trainers who are willing to supervise to cover the number of students seeking certification (Marano et al., 2020). An option to provide asynchronous, web-based training for portions of the fieldwork experience could be a viable option and a call to continued research in this area has been made (Kranak, et al., 2023; Marano et al., 2020). Very little work has been done to date using components of BST to train individuals who are pursuing a credential and operating at a graduate training level, or the participant level of training and experience in similar studies has not been recorded, therefore leaving a place for contribution to effective practice (Gerencser et al., 2019; Marano et al., 2020).

Technology Based Didactic Training

While didactic training of skills is indeed a part of behavior skills training, it generally is used in isolation for the training of adult staff (behavior support staff, behavior technicians, etc.) and found to be not as effective as a full or partial (i.e., didactic training plus one or more other components of BST) training package (Alavosius & Sulzer-Azaroff, 1990; Gardner, 1972; Petscher & Bailey, 2006). When didactic training is presented on its own, it is generally delivered without interaction between instructor and learner, the knowledge and skills are taught in hypothetical scenarios, the skills cannot be practiced, and there is typically a lack of learner interaction with the material (Khan & Coomarasamy, 2006). Additionally, the information is often quickly forgotten and/or cannot be quickly retrieved (Khan & Coomarasamy, 2006). There is a lack of clinical context and relatively little learning needs assessment (Khan & Coomarasamy, 2006). While didactic training on its own may not be effective at teaching

practical skills, it may be useful for teaching basic content information as a first step.

Granpeesheh et al. (2010) used an eLearning module of didactic instruction to train new behavior therapist staff on the basic concepts of ABA and found a statistically significant change in knowledge from pre- to post-test.

Active learning has been promoted as a means to “fix” the traditional didactic lecture to account for some of these shortfalls of the training method (Richardson, 2008) and as the addition of active learning practices have been added over the last decade-and-a-half, many discussion articles have been written offering methods and strategies for increasing student engagement in traditionally didactic formats and online instruction (Fink, 2015; Khan et al., 2017; Pearson News, 2016; Poll et al., 2014; Silberman & Biech, 2015).

LeBlanc et al.’s (2020) survey used to capture currently practicing BCBAs’ training experiences on relationship building with families as clients, specifically didactic training received in graduate studies or in professional continuing education contexts. They did not, however, discuss whether the BCBAs thought the didactic training was effective in teaching those skills and noted that “empirical research is needed to evaluate the training of these skills” (p. 392), which at present still has not been conducted.

Video Modeling

The second component of BST, after didactic instruction and providing a written description of the task, is modeling (Giannakakos et al., 2016; Parsons et al., 2013). Video modeling is typically a video of someone conducting the skill correctly for trainees to watch who want or need to develop that skill (Marano et al., 2020). Video models sometimes have voice over to narrate the skill, aligned with a task analysis that was shared in the didactic training portion (for example, Lipschultz et al., 2015). Other video models might be integrated with

interactive features like short video clips, brief quizzes, or additional text to read (for example, Pollard et al., 2014). Some might include more aspects of the first two stages of behavior skills training by providing additional reading to better inform practice (Gutierrez et al., 2020).

Feasibility of Behavior Skills Training

More robust staff training has been examined in the behavior analytic literature, including full BST packages with multiple trainers (Parsons et al., 2013) but the amount of time and resources it takes for organizations to implement training such as this with implementation fidelity are often prohibitive (Erath et al., 2021; Gerencser et al., 2019). And while there have been attempts in the research to make BST more accessible (Higgins, et al., 2017; Knowles, et al., 2017, Pence, et al., 2012), especially for training in rural or international and remote settings, it can still be relatively challenging to execute efficiently and with cost accessibility (Marano et al., 2020).

One alternative is technology-based instruction. When examined to teach behavior analytic service staff to conduct behavior analytic teaching procedures, several studies have demonstrated effective use of technology-based instruction consisting primarily of didactic and modeling portions of behavior skills training (Erath et al., 2021). Video-based didactic interventions using video modeling, various types of media presentations (i.e., pictures, sound files, videos), closed captions or other text on screen, and voiceover narration have been found to effectively teach staff the skills of discrete trial teaching (Vladescu et al., 2012), preference assessments (Bovi et al., 2017; Deliperi et al., 2015; Hansard & Kazemi, 2018; Rosales et al., 2015; Weldy et al., 2014), and other teaching procedures (Giannakakao et al., 2016).

Taking the technology intervention further, asynchronous training can meet training needs when a large number of people need to receive training at a relatively low cost (Marano, et

al., 2020). While asynchronous training may have more up-front expenses associated due to the time it takes to create training materials (videos, worksheets, etc.) and technology investments, it has a lower associated cost over the long term for large numbers of trainees and to support areas that are difficult to reach (Geiger et al., 2018).

Marano et al. (2020) conducted a review of the literature on staff training, focusing on asynchronous methods, and found that the efficacy of such methods was mixed in the literature on staff training. In the 58 experiments included in their systematic review, the majority reported participants mastered the target skill after initial asynchronous training (68.9%). This varied depending upon the dependent variable being measured. Video modeling was found to work for training staff on problem solving interventions (Collins et al., 2009; Marano, et al., 2020), which may be the closest correlate to self-advocating for solutions to perceived problems in a fieldwork experience. Mixed results were found for teaching performance feedback as a skill (Shuler & Carroll, 2019). Self-instructional packages also resulted in participants meeting criteria (Marano et al., 2020). More complex skills (like conducting a mirror protocol or choosing an intervention for a client) required packages of instructional methods (i.e., self-instruction packages containing video-modeling, plus additional readings, plus assessment), while more straightforward skills like creating a graph could be taught to mastery just using one aspect of asynchronous training (Marano et al., 2020). It was also noted that participants may respond differently to asynchronous training based on preference, subsequent performance outcomes, and previous learning history. In many cases, the previous experience with the skill or the previous practice in the field was not reported by the experimenters, so it was difficult to draw a correlation between some of the potential moderating variables (Marano et al., 2020).

There is a dearth of literature published in peer-reviewed journals that experimentally examines how to improve a fieldwork supervision experience across fields that use that as a tool for training future practitioners. Behavior analysis is lacking the most, with only one published study at present. However, the field of behavior analysis offers many tools that could serve to efficiently improve fieldwork supervision experiences (i.e., technology-based instruction, aspects of behavior skills training, video modeling). Chapter 3 will propose a method to efficiently improve the supervision experience of students in an applied behavior analytic fieldwork setting by providing a brief training combined with role play analysis on self-advocacy and self-efficacy.

Chapter 3

Method

The Improving Fieldwork with Self-Efficacy and Advocacy Training (IF-SEAT) intervention used evidence-aligned practices gleaned from the literature of the fields of Applied Behavior Analysis, Counseling, Social Work, Psychology, and School Psychology to create a brief, online micro-training that will ultimately be freely available for students of applied behavior analysis to access via open-source platforms. The study examined to what extent a brief, online training can effectively and efficiently change the behavior of a fieldwork student and result in a more successful experience in the field. I created a task-analysis for self-advocacy behaviors within the context of a fieldwork supervisory relationship that was taught and then assessed through participant coding of role-play videos using the same task analysis. The intent was that specific behaviors (i.e., affect, clarity of conversation, flexibility, and the feedback loop) of supervisees will change such that their experience with their current supervisor would be improved and they would ultimately have a more fulfilling career as these skills generalize to new contexts. See Conceptual Framework (Figure 3 below), Logic Model (Figure 1 above), and Theory of Change (Figure 4 below).

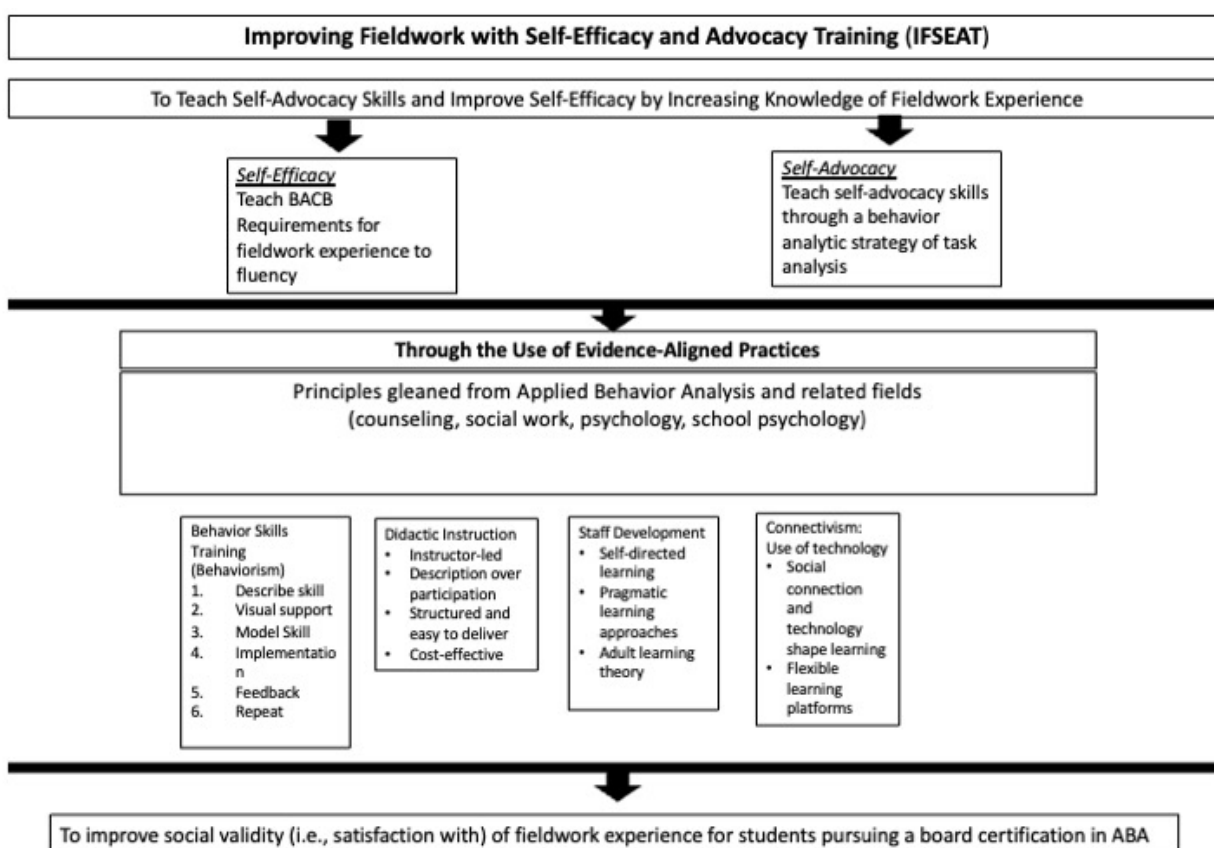
Figure 3*Conceptual Framework*

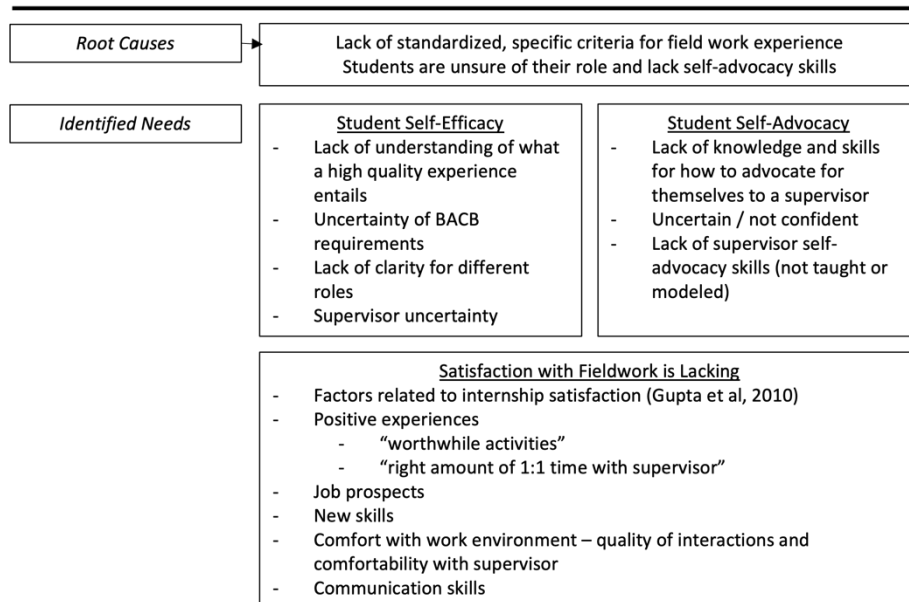
Figure 4*Theory of Change*

Theory of Change

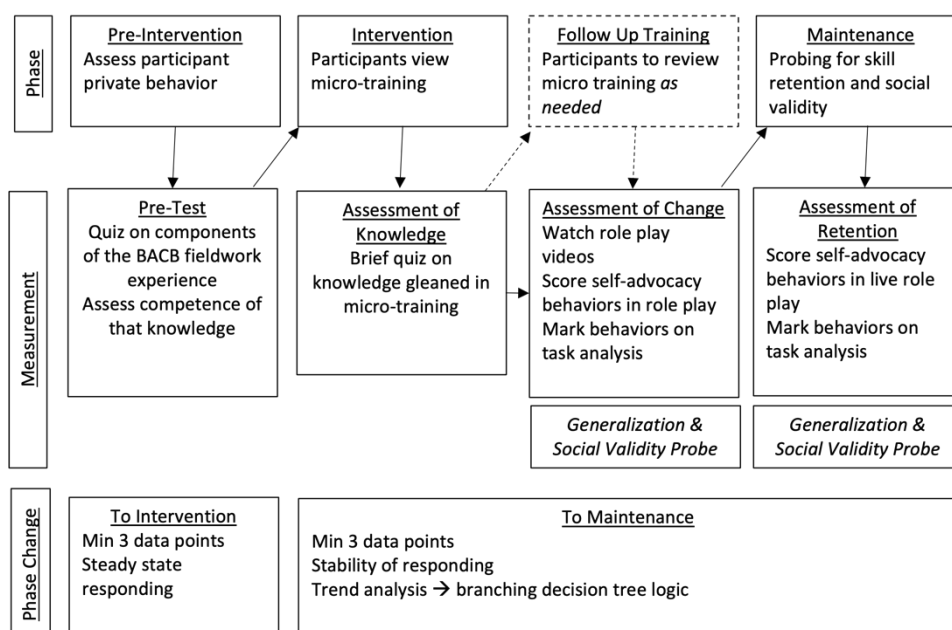
Overarching Parameters

Type of program: Fieldwork student micro-training	Philosophy of Intervention: Behaviorism	Level of Prevention: Antecedent Early Experience Intervention
Target population: ABA students in fieldwork <9mo	Infrastructure: Open Source accessible	Modality: Virtual micro-training online video review and coding

Causes, Needs, Resources



Mechanisms of Change



Participants

After obtaining authorization from the University of Oklahoma's Institutional Review Board, participants were recruited from a sample of the broader population of students pursuing a Board Certified Behavior Analyst credential and currently participating in a fieldwork experience. As participants were recruited using currently known contacts and not from the broader pool of all students currently engaging in fieldwork, the sampling method had some restrictions. However, the participants that opted to participate all served in the same role or had served in the same role in the past (as a Registered Behavior Technician (RBT)), and work or worked in similar settings (in-home Applied Behavior Analysis therapy providers) which controlled as much as possible for threats to internal validity related to participant characteristics (Slocum et al., 2022).

After giving their informed consent to participate, participants were asked to complete a survey containing demographic information, describe their experiences to this point with supervisory relationships, and complete a self-rating of their perceived self-advocacy skills for social validity and data comparison purposes. Participants were mostly female ($n=3$, 75%) and between the ages of 25-35. They each majored in a different subject matter during their undergraduate education, only one in a related field (Psychology). Most of the participants had already completed their master's degree coursework ($n=3$, 75%). All participants completed study in Applied Behavior Analysis. Three participants held RBT certifications and one held an LPC certification.

Three participants currently work as RBTs and one works as an ABA Tutor and a virtual assistant to a BCBA. All four work in private practice, with one working remotely and the other

three providing services in person. These settings ranged from in-home, clinic, school, to a group home. Three of the four have had their current job for less than one year; the fourth has been in her role for a year-and-a-half. One participant has worked in special education for a little over a year, one for 3 years, one for 7 years, and one for 12 years. Three of the four participants are able to receive fieldwork supervision at their place of employment, with their supervisor also employed at the same organization. One of these also has an additional supervisor who provides remote supervision. The fourth has a fully remote supervision experience. Participants have been accruing fieldwork supervision hours for between seven and 20 months. See Table 1 for demographic data of participants, Table 2 for details of their current fieldwork and employment experiences, and Table 3 for the scenarios participants provided describing current or previous difficult interactions with supervisors.

Table 1
Participant Demographic Data

Participant	Age	Gender	Undergrad Major	Master's Degree		Completion Date (or estimated)	Currently Held Credentials
				Status	Area of Study		
Ellie	35	Female	Journalism	Complete	ABA	May, 2024	LPC
Lauren	25	Female	Psychology	In progress	ABA	June, 2025	BS
Emily	30	Female	Marine Biology	Complete	ABA	May, 2024	RBT
Todd	34	Male	Exercise Science	Complete	Special Education with an emphasis in ABA	May, 2024	RBT

Table 2*Participant Fieldwork Experience Data*

Participant	Current Job				Years of Experience		Fieldwork Specifics		
	Current Job Role	Practice Setting	Workplace Locale	Description of Work	Current Job	Special Education	Fieldwork at Work Site	Supervisor Employed at Same Site	Months accruing fieldwork
Ellie	RBT	Clinical In Home Practice	Suburban	ABA therapy	1 to 2	1 to 2	Yes	Yes	9
Lauren	RBT	Clinical/Private Practice	Urban	early intervention applied behavior analysis therapy	<1	3	Remote	No (Paid online supervisor)	7
Emily	ABA Tutor, Virtual asst. to a BCBA	Remote for clients in home, in school, and group homes	Rural	ABA therapy	<1	10 to 15	Yes, along with a separate remote supervisor	Yes	14
Todd	RBT	Clinical In Home Practice and School-based services	Rural	ABA therapy	<1	5 to 10	Yes	Yes	20

Table 3*Participant Reported Difficulties with Current or Previous Supervisors*

Participant	Difficulties Experienced in Supervision
Ellie	Ethical disagreements with supervisor
Lauren	Due to being remote it can be difficult to imagine the hands-on experience needed.
Emily	Unreliable supervisor; she is constantly absent cancelling meetings, and sharing inaccurate information
Todd	Ethical differences with supervisor related to providing certain types of service.

Setting

The participants engaged with the researcher via an online video meeting platform (i.e., Zoom). They viewed the micro-training video using their own computer. The setting in which those experiences took place were up to the participant, but recommendations were provided as to finding a quiet setting that is free from distractions and noise that might interfere with learning. The setting in which the participants receive fieldwork supervision varied from in-home early intervention type services to behavior therapy services provided within the public school context. Two of the four participants worked in rural locales, one worked in an urban locale, and one worked in a suburban locale.

Variables*Independent variable*

The independent variable was a micro training on self-advocacy and self-efficacy that participants viewed between the baseline and treatment conditions. This included a 22-minute micro-training (see Table 5) on self-advocacy within the supervisory experience, which consists of a combination of very short (less than 5-minute) didactic training sessions combined with interactive activities to evoke behavioral responses from the learners and condition learning (Arghode et al., 2017; Silberman & Biech, 2015). The content of that video covered a task analysis for effective self-advocacy (see Table 4) built from the work of Daniels and Bailey (2014), Bailey and Burch (2010), Kazemi et al., (2018) and Stone and Heen (2015). The concepts that were covered include problem identification, having an effective conversation with a supervisor about that problem, giving and receiving feedback well, recognizing when to shelve a discussion for another time, and respectful communication behavior (see Table 3). The training also contained a brief segment (five minutes) on what a supervisee should expect from their supervisor during fieldwork, with principles gleaned from Helvey et al. (2022), Kazemi et al., (2018), Sellers et al. (2019), and LeBlanc and Luiselli (2016) to address the self-efficacy component. A short quiz was provided at the end of the video training to assess short term retention of the information presented (questions listed in Table 6).

Table 4

Task Analysis for Self-Advocacy with Supervisor

	Task	Present/ Not Present
1.	Start with something pleasant (Daniels & Bailey, 2014)	
2.	Compliment on something else in experience (Daniels & Bailey, 2014)	

-
3. Identify your need using “I need” statements rather than “you are not providing” statements (Kazemi et al., 2018)
 4. Be open to alternative ideas – “be open, constructive, flexible, and creative” (Bailey & Burch, 2010).
 5. Identify a specific focus for the conversation (Stone & Heen, 2015)
 6. Be prepared to provide solutions to the problem or help implement any feedback you deliver (Stone & Heen, 2015). Offer a self-monitoring solution if relevant. (Kazemi et al., 2018)
 7. Focus on something that has achievable goals attached, is measurable, and can be visually represented (i.e., graphed) (Kazem et al., 2018)
 8. Don’t assume you know what your supervisor is thinking – ask for their thoughts! (Stone & Heen, 2015)
 9. When feedback is given from the supervisor, accept it, restate it, clarify, say thank you. (Bailey & Burch, 2010)
 10. Recognize when to just say thank you and when to discuss further. (Stone & Heen, 2015)
 11. Be respectful, kind and professional (Stone & Heen, 2015)
 12. Timing of conversation is appropriate and contextual (Kazemi et al., 2018)
-

Table 5*Outline of Micro-Training*

Micro-training Elements	
I.	Introduction to the concept of self-advocacy A. Quick review of the literature (30 sec) B. Basic definition (30 sec) C. Behavioral definition of self-advocacy (2 min)
II.	Task Analysis for Self-Advocacy A. Review the component skills of successfully giving feedback (7 minutes) B. Review the task analysis for self-advocacy (5 minutes)
III.	Common areas of deficit when applying self-advocacy A. Discuss the common ways people go wrong when self-advocating (3 minutes)

	B. Offer solutions and suggestions based in the literature for other fields (3 minutes)
IV.	Introduction to the concept of self-efficacy
	A. Quick review of the literature (30 sec)
	B. Basic definition (30 sec)
	C. Behavioral definition of self-efficacy (2 min)
V.	Self-efficacy as it relates to a high-quality fieldwork supervision experience
	A. What you should expect from a high-quality fieldwork experience (3 min)
	B. Resources for continued understanding (1 min)
VI.	Reminder of principles of self-advocacy and basic steps (2 min)
VII.	Quiz (5 minutes)
Total time: 30 minutes (without quiz), up to 35 minutes (with quiz)	

Table 6*Micro-Training Post-Quiz*

True/False
1. When having a conversation with your supervisor, you should not ask them questions about their thoughts and feelings about the situation. Stick to “I” statements only.
2. If your supervisor responds to your feedback with disagreement, one option is to accept that and think about it further rather than respond in the moment.
3. You should only ever go to your supervisor with feedback about your supervision experience if you have gathered data and have peer-reviewed literature to back up your argument.
4. When learning how to give feedback to your supervisor, you could copy someone else who is really good at giving feedback and being a self-advocate when you are providing your feedback.
5. If your first feedback/self-advocacy session does not go well, you should assume that further sessions will also not go well and begin to look for a new supervisor.

Dependent Variable

The role-plays were be scripted, acted out by currently practicing BCBAs, and mimicked environments that are assumed for many personnel pursuing a national certification as a BCBA (see Table 7 for a list of role-play scenarios). Twenty different scenarios were recorded so that participants were never presented with a duplicate video. Equivalence of video content was

ensured through non-identical point to point correspondence so that all components of the self-advocacy task list were included (whether the skill being demonstrated was present or absent), but non-identical in that each component of the task analysis was not present in the exact same order for each scenarios. The scenarios needed to resemble true to life situations as much as possible, and not every conversation with another person happens in the same format each time.

Table 7

Scenarios for the Pre-recorded Videos to be Coded by Participants

Descriptions of scenarios to be used in the pre-recorded videos
1. The supervisee is being told by the supervisor that any hours spent working directly with students or clients can only count as restricted hours. 2. The supervisor is not making themselves available for the 5% supervision time each month. 3. The supervisor is regularly assigning work the supervisee does not feel qualified to take on. 4. There is a lack of clear guidelines and expectations for the experience. 5. There is a lack of commitment and follow through (i.e., not providing resources as promised, not returning emails or phone calls). 6. Lack of positive affect on the part of the supervisor toward supervisee. 7. Competencies are not regularly assessed and the supervisee is lacking goals to work toward. 8. The supervision experience is not organized well and the supervisee is unsure of what to expect. 9. Supervisor does not make an effort to ask the supervisee how the experience is going, or does not attempt to measure the effectiveness of their supervision. 10. Supervision experience is not broad enough for the supervisee and is overly focused on one context or category of service delivery. 11. Supervisee does not feel they are getting enough 'hands on' experience. 12. There is no supervision contract in place.

13. Supervisor does not identify for the supervisee when they are doing something incorrectly; only praise type feedback statements are made.
 14. Only hypothetical ethical scenarios are discussed, there is not practice in discussing or analyzing actual ethical dilemmas that might arise during the experience.
 15. Regular supervision meetings are not scheduled in advance and are conducted as the two parties both happen to be available.
 16. Supervisee is feeling like they want more direct supervision/observation from their supervisor but is being told that talking about it is sufficient.
 17. Supervisor regularly wants to meet after work hours for supervision meetings despite the fact that the supervision arrangement is for specific work hours.
 18. Supervisee thinks the supervisor is confused about what counts as restricted vs. unrestricted hours.
 19. The supervisor has a lot of supervisees and the supervisee feel like they are not getting enough attention for a quality experience.
 20. The supervisor is regularly taking credit for the supervisee's work.
-

Scenario topics included recommendations for high quality supervision experiences that were gleaned from Sellers et al. (2016a), Sellers et al. (2016b), and Reid et al. (2021) and recommendations from Sellers et al. (2016c) for solutions to common ethical issues in supervisory relationships.

Measures

Participant self-efficacy and self-advocacy was assessed using two pre- and post-assessments. Table 8 includes the questions of the pre- and post-assessment of the participant knowledge of the components of the BACB fieldwork experience, which was given before baseline assessment of self-advocacy skills using the task analysis. This tool was developed by the primary investigator based on guidance provided by the BACB (2022a).

Table 8

Pre-Post Assessment of Knowledge of the Components of the BACB Fieldwork Experience

Please answer the questions to the best of your knowledge at this point in your experience. Do not use other resources to answer these questions; this is an assessment of what you know.

Answer the following by selecting either *True* or *False*.

1. The only requirement for beginning to accrue fieldwork supervision hours is that you have attended the first class meeting of qualifying graduate level behavior analytic coursework.
 - a. **T or F**
2. The BACB recommends that supervisee have multiple supervisors and multiple experiences.
 - a. **T or F**
3. Restricted activities are those spent when working with a client.
 - a. **T or F**
4. You must have 40% of your total hours in restricted activities in order to be approved to take the BCBA examination.
 - a. **T or F**
5. Your supervisor is responsible for designing a systematic experience for you and not just rely on opportunities that come up in daily practice.
 - a. **T or F**
6. Your supervisor should be giving you regular, timely, written feedback on your performance.
 - a. **T or F**
7. Your supervisor should be evaluating their own supervision performance and seek feedback from you as their supervisee.
 - a. **T or F**
8. You can receive some of your supervision in a group format, but only up to 20% of supervised hours.
 - a. **T or F**
9. You should only be completing activities during your supervision that you are able to complete independently, otherwise this assignment is considered out of your scope and unethical.
 - a. **T or F**
10. Pre-recorded videos of you working with a client or student are not allowed as supervised, observed hours. Your supervisor must watch you live in real time.
 - a. **T or F**

Answer the following by filling in the blank with the correct number.

11. For a supervised fieldwork experience, how many hours do you need to accrue?
 - a. 2000
 12. How many hours can you accrue each month of your fieldwork experience?
 - a. No more than 130
 - b. No fewer than 20
 13. How many years do you have to complete your fieldwork hours?
-

-
- a. 5
14. What percent of your fieldwork needs to be spent in actual supervised hours with your supervisor (vs. independent hours without the supervisor present)?
- a. 5
15. For a supervised fieldwork experience, how many observations from your supervisor do you need to have at a minimum per supervisory period?
- a. 1
-

After the above 15 questions have been answered, the participants will be shown the questions and their responses again without the option to change any answers. They will be asked to rate their confidence in their answer for each question on a scale of 1-5 as is displayed below:

I had no idea and confident this completely guessed answer	I was somewhat sure but not confident	I am very is the correct		
1	2	3	4	5

Participants were also given a self-advocacy rating scale, which was based on the School Counselor Self-Advocacy Questionnaire (Clemens et al., 2011) and modified to reflect the situations that might arise in a fieldwork experience. Participants were asked to rate themselves from one (not confident) to five (very confident) on how they would feel about engaging in behaviors related to speaking up when the work is too much or too difficult, asking for more training, saying no, asking for additional resources, and similar situations. Participants were emailed a link to a Qualtrics survey to answer these questions both at the beginning and end of the project. The complete survey can be seen in Table 9 below.

Table 9

Self-Advocacy Self-Assessment

Rate how you would feel about engaging in the following behaviors in your fieldwork experience:

- 1-no confidence
- 2-little confidence
- 3-some confidence
- 4-mostly confident
- 5-very confident

1. Volunteering for new projects that can benefit your experience.
 2. Request resources to learn or do projects more effectively
 3. Say “no” to unreasonable requests
 4. Let your supervisor know if you are having difficulty with a task
 5. Point out your accomplishments to your supervisor
 6. Speak up against discrimination or bias that you feel is directed toward you
 7. Ask for more advanced work
 8. Let your supervisor know when you think their feedback is unfair
 9. Speak up if you feel you are being asked to do too much
 10. Request your supervisor provide more training
 11. Express concerns about unethical behavior you observe
-

The participants viewed pre-recorded role plays of about 3-5 minutes and scored these according to the given task analysis on Qualtrics for self-advocacy in the context of a supervisory relationship. The task analysis was developed through examining the research and suggestions by experts in the field of behavior analysis on supervision practices. The task analysis was further reviewed by other experts in supervision prior to use in research for additional validity. See Table 4 for the task analysis.

The task analysis was taught as a total task chain in the video micro-training. To ensure reliable responding by the participants, additional instructions, guidance, examples, and non-examples were provided in a supplementary guide associated with the task analysis. See Table

10. Three different trial role plays were recorded and viewed by both the primary researcher and two additional data collectors (both currently practicing BCBAs) to ensure 100% inter-observer agreement is reached on how to code role plays on each of the three videos (Ledford & Gast, 2014). Additions or modifications to the supplementary guide were made as a result prior to beginning baseline data collection with participants. The primary researcher is a doctoral student in the University of Oklahoma Department of Educational Psychology, holds a master's degree in special education and a Specialist Degree in School Psychology, a national credential in School Psychology, and a board certification in Behavior Analysis. She has been practicing in the field for 18 years. The additional data collectors were also doctoral students, currently practicing BCBAs, and have been practicing for about 5 years each.

Table 10

Supplementary Guide to the Self-Advocacy Task Analysis

	Task
1.	Start with something pleasant. (Daniels & Bailey, 2014) <i>Give your supervisor a greeting, ask how they are doing, acknowledge anything challenging that might currently be going on, make an empathic statement, etc.</i> <i>Example: It's been a tough week with our clients, hasn't it? You've been an amazing support to our team this week though and I know next week will be better because of that.</i> <i>Nonexample: Our clients are really just not making progress right now!</i>
2.	Compliment on something else in experience (Daniels & Bailey, 2014) <i>Tell your supervisor something they are doing really well for you in your supervision experience.</i> <i>Example: Thank you so much for modeling that procedure for me yesterday.</i> <i>Nonexample: My friend's BCBA supervisor gave her some good reference articles yesterday.</i>
3.	Identify your need using "I need" statements rather than "you are not providing" statements (Kazemi et al., 2018) <i>Come into the conversation with 1-2 things that you need and make sure they are specific.</i>

Example: I know you assigned me this FBA to complete independently, but there are so many ways to write this up and I am not sure what is best practice. I need a one or two models on how to write up the results of this FBA I just completed.

Nonexample: You still haven't given me the book you promised me last week.

4. Be open to alternative ideas – “be open, constructive, flexible, and creative” (Bailey & Burch, 2010).

Listen to the ideas or suggestions that your supervisor has that might be different than your own. Thank them for the idea and do not immediately assume their idea won't work or is not the solution to your problem.

Example: That's not something I had thought about that would work here. Can we brainstorm how we could maybe implement it?

Nonexample: I tried that already and it didn't work.

5. Identify a specific focus for the conversation. (Stone & Heen, 2015)

Only come with 1-2 topics, not several. Either write down what you want to say or make sure you've rehearsed how you want to say it so that your ideas are clear and concise. Ensure someone else can understand what you're asking and need. Do some research prior to the conversation to ensure that what your asking is reasonable or that you can't solve the issue on your own.

Example: I would really like to meet with you more often. I find our conversations really helpful in processing the results of the assessments you've assigned me verbally together. Can we figure out time to meet more regularly?

Nonexample: I never see you and I think we don't meet enough.

6. Be prepared to provide solutions to the problem or help implement any feedback you deliver (Stone & Heen, 2015). Offer a self-monitoring solution if relevant. (Kazemi et al., 2018)

Having done your research in the previous step, offer any potential solutions that you found. Offer to help figure out the problem with your supervisor rather than expecting them to hand you a solution. Consider that self-monitoring might be the best solution depending upon the situation.

Example: Since you shared your calendar with me, I took a look at it. It seems like Tuesdays at 10:30 you have available almost every week. Can we put a standing appointment in at that time to meet to review tasks together?

Nonexample: Since you're so busy you need to pick time to meet with me and let me know.

7. Focus on something that has achievable goals attached, is measurable, and can be visually represented (i.e., graphed) (Kazemi et al., 2018)

Consider graphing your behavior as a supervisee or the behaviors that you and your supervisor agree to together so that you can bring your progress back to your supervisor and discuss your progress objectively.

Example: I made a chart in my supervision folder so that we can track how often we are meeting and make sure we're hitting the goal we decided on of at least once per

week for an hour. I can share it with you too so that you can see it and we can talk about it each time we meet.

Nonexample: As long as we just talk about my assignments when you're in the building on Tuesdays that should be fine.

8. Don't assume you know what your supervisor is thinking (Stone & Heen, 2015)
Ask your supervisor what their thoughts are on the problem you have and the solution you presented. Be willing to just listen and don't make immediately comments.
Example: What do you think about meeting that often and the way I proposed to track our meetings?
Nonexample: I think this will work out great.

 9. When feedback is given from the supervisor, accept it, restate it, clarify, say thank you. (Bailey & Burch, 2010)
Use active listening skills while your supervisor is giving you feedback.
Repeat/restate/summarize it without sounding robotic. Make sure you ask any clarifying questions you have at that moment, so you leave the conversation with a full solution of what the plan is going forward. End with a thank you!
Example: So what I'm hearing is that you only have time to meet in person twice a month, but that you could easily do a zoom meeting the other two weeks. Could we do slightly longer in person meetings than zoom meetings? I tend to get more out of our in person conversations. But otherwise, that sounds really good. Thanks for offering that!
Nonexample: It really doesn't work for me at all to meet via zoom.

 10. Recognize when to just say thank you and when to discuss further. (Stone & Heen, 2015)
Sometimes you need to process what your supervisor has said and come back at a later time because you're having a strong emotional response or you think they really are not hearing what you're saying. If that is true, you can just say thank you and revisit the conversation at a later time when conditions are more conducive to the conversation. But if further clarification is needed and everyone is on the same page with the conversation, you can keep revisiting point 9 with asking clarifying questions and restating/summarizing.
Example: It sounds like scheduling is just a big pain point right now for you and there are a lot of things up in the air that make scheduling out further hard. Can we review some things right now and come back to the scheduling conversation early next week?
Nonexample: I guess you just don't have time to meet with me. Maybe I should find another BCBA to supervise me.

 11. Be respectful, kind, and professional (Stone & Heen, 2015)
Kindness can look like greeting the other person, smiling, identify successes you've had on your own or together. Professional can look like being punctual for meetings, following up on the things you promised you would do or tasks you were assigned, giving timely feedback or help so that it's in close proximity to the need, being responsive to communication, and offering further training resources. Soft skills are something that need continual development.
-

Example: I really appreciate the time you spend with me for supervision. I always get a lot out of our meetings. Let me pull up the calendar right now and make some shared appointments so that we can keep this commitment to meeting and the schedule doesn't get away from us.

Nonexample: I just don't think it's my responsibility to keep track of all of this. You're my supervisor and should be supporting me.

12. Timing of conversation is appropriate and contextual (Kazemi et al., 2018)

Look at all of the factors that affect timing. Did your supervisor just come out of a difficult meeting? Did they just arrive at your site and are still getting settled? Are there other people around in the room where you want to talk? Did you give them sufficient time to respond to anything you've previously brought up? Is it the end of the day and everyone is ready to go home? Enter the conversation with a request to your supervisor to make sure they're ready to possibly have a difficult conversation.

Example: Hey, this seems like a good time to talk because everyone else is out with the students at specials and we can have a private conversation. Is this a good time for you to talk about some feedback I have? If not that's ok and we can talk about it another time.

Nonexample: I know it's the end of the day on a Friday, but if I don't talk to you about this now I don't know when I will so we need to have a conversation.

Following the micro-training described as the independent variable, a brief quiz assessed the short-term retention of the information presented (Table 6). The questions were true/false in format and covered the primary topics in the training, like how to format your questions to your supervisor, how to handle disagreement, when to approach your supervisor with feedback, and how to handle it when the process does not go according to expectations. As participants viewed the role play scenarios, they used the task analysis presented in Table 4 to score the behaviors demonstrated. Each item on the task analysis was scored as present or absent and a total score was calculated (out of 12). Each video was pre-coded and scored by the researcher and participant scores were immediately compared to the researcher score to determine accuracy of coding in a role play scenario. Once participants demonstrated mastery in the role play viewing phase, their knowledge was assessed in a live role play scenario. Their behavior in the role play was scored by the researcher using the same task analysis (Table 4).

As a part of the final interview in the generalization phase, participants were asked to assess their use of the task analysis (or components thereof) in their actual experience (Anderson et al., 2022). They were asked to what extent the task analysis was helpful and if it supported a behavior change. They were also asked to what extent their experience has improved as a perceived result of their self-advocacy (via interview, Table 11). Additional questions were asked related to the social validity of the actual intervention (i.e., which components were most helpful, was the time commitment acceptable, what did you learn, etc.).

Table 11

Social Validity Interview Items

Initial Interview:
1. Tell me about your experience in supervised fieldwork so far. a. What is the best thing about your fieldwork experience? b. Is there anything about your experience so far that you would like to change? 2. How confident do you feel in your ability to ask your supervisor for those things? 3. How confident do you feel in your fieldwork experience so far? a. Have you been successful? b. Are you learning what you need to learn? 4. What do you hope to get out of this training experience?
Post-intervention interview:
1. How would you describe your experience with the self-advocacy intervention? 2. Do you have a better understanding of how to self-advocate? 3. In your experience, which was the most helpful piece of this intervention? Watching the micro training, completing the coding, having the task list, or the final role play? 4. How, if at all, have you applied your newfound self-advocacy skills in your fieldwork experience with your supervisor?

Materials

Participants were provided with links to the micro-training via email, which they accessed using a device of their choosing on their own internet connection. They were also provided links to Qualtrics to watch and code videos and complete surveys as described in previous sections. The task analysis was included in each Qualtrics survey to code the videos and supplemental documentation was provided during the initial micro-training. Links to Zoom meetings were also provided via email for initial informed consent interviews and follow up generalization role plays.

Procedures

For the purposes of this study, both self-advocacy and self-efficacy were addressed. The goal of self-advocacy in this context is that the participants advocate for a better-quality supervision experience, but that cannot be done without knowledge of what a high-quality experience should entail. Self-advocacy was measured through identification of components of a task analysis while watching role play, as well as a self-rating scale. Self-efficacy was measured in pre-post assessment of knowledge of the components of a fieldwork experience (Table 8) perceived confidence in that knowledge (Table 8) and assessment of social validity of the intervention (Table 11) after the treatment and generalization phases. A panel of expert BCBAs have reviewed the questions in these assessments. For more details, see Measures section.

Conditions

Scenarios presented in both baseline and treatment conditions were randomly presented and will focus on different aspects of the supervisory experience that are commonly reported as ways in which supervisees are disappointed by supervisor performance. No scenario was exactly repeated, but scenarios were based around the same or similar themes. Random presentation of

video scenarios was an attempt to avoid order effect (Barger-Anderson et al., 2004) and increase internal validity of the dependent variable. Additionally, reliability of responding to each video was able to be compared across participants. The recorded role plays were completely scripted. After the participant scored each role play, they were provided with automated feedback on their answers in comparison to the pre-determined scoring. The percent of successful identification of inclusion or exclusion of the task analysis steps was measured in each role play viewed and scored by participants.

Movement Between Conditions

Movement from baseline condition to treatment condition was initially based on waiting for stable responding in baseline for each participant. The first participant to demonstrate a stable trend in data after three data points and was moved to treatment. However, the subsequent participants were not demonstrating as consistent responding as the first and, due to time constraints, it was determined to move each subsequent participant into treatment one data point after the previous participant.

To determine continued need for data collection, movement to final generalization phase/probe, or need for additional intensive teaching sessions, branching decision tree logic was used (Wong et al., 2022). If participants scored at 100% for at least three (3) consecutive treatment role-play ratings, a generalization probe was conducted and then the participant was moved to a longer term (between 30-120 days post intervention) generalization phase, to include monthly video probes. That percentage of accuracy that was chosen (100% performance in training conditions) is linked to long term stability and durability of skills (Wong et al., 2022). For participants scoring above 90% for three consecutive ratings, pre-recorded role play were

presented until 100% criteria was reached. For participants scoring below 80% for three consecutive ratings, an additional viewing of the initial micro-training was given. Two participants did not meet this criterion; however, time was a factor and present data collection was discontinued. Endurance and stability will be examined with continued data collection in a monthly probe for at least three months. Additional re-training will be required for these two participants that did not achieve criteria in the intervention phase prior to receiving additional maintenance probes.

Generalization

To assess generalization of these skills to the participant's actual experience, upon recruitment each participant was asked for a list of complaints they had with their current experience that they needed to address with their supervisor. Several role plays were crafted based on those real world problems and generalization of the task analysis were conducted at post intervention to determine whether or not the skills being learned through micro-training and rating behavior of others generalized to a closer to real world setting. The role plays were conducted online via a video chat platform by the primary investigator, who has extensive experience in staff development, feedback coaching, and supervisory relationships. Role plays were recorded and scored by the primary investigator.

Design

A nonconcurrent multiple baseline across participants design (Slocum et al., 2022) was used to examine the effect of a brief video training of self-advocacy on participant self-advocacy behavior in role play (Ledford & Gast, 2014). The multiple baseline design was chosen because the knowledge taught in the intervention condition cannot be easily withdrawn or reversed and

therefore needs to be compared not only within participant from baseline to intervention, but also across multiple participants to establish a possible functional relation (Slocum et al., 2022). A nonconcurrent design was selected over a concurrent design as data was collected at varying points in time for each participant. Baseline data collection began at the same time, but after that data were collected non-concurrently (Slocum et al., 2022). A multiple baseline design controls for threats to internal validity by ruling out immediate learning history (Watson & Workman, 1981) but unfortunately the nonconcurrent design cannot eliminate external history effects as participants engaged with the intervention and measurement procedures at different times (Harvey et al., 2004). Test-retest threats to internal validity were controlled for by having multiple versions of the presentation stimuli (i.e., the role play videos) and repeated measurement in the baseline condition (Kennedy, 2022).

Conditions

Baseline. Data collection began for all participants at the same time in baseline. Participants were given a task analysis and explanation for how to score the videos using Qualtrics, and given a brief explanation that they would receive further training once baseline data on their abilities had been collected. The participants were given a link to a Qualtrics survey that had the video posted next to the task analysis questions so they could score the video in real time as it was playing. They could then use the task analysis scores to determine an overall score.

A minimum of three (3) scenarios were presented prior to beginning intervention. This decision was to avoid prolonged exposure to the baseline condition for the final participant(s). As described above, the move to intervention condition was initially going to be dependent upon stability of data, but due to time constraints and outlier data points, decision making was shifted

to a pre-determined number of data points (Ledford & Gast, 2014). For subsequent participants, an additional one session more than the previous participant in baseline took place prior to beginning intervention.

Intervention. Participants were provided with a link to the micro-training to view. Once they complete the micro-training, participants were provided with a link for the first scenario in this phase and a reminder of instructions for coding in Qualtrics. Participants were sent a link to each subsequent video depending upon their scoring for the previous video. Decisions were made to move participants into the maintenance phase based on stability of responding to the intervention (Ledford & Gast, 2014). If participants were not progressing with their ability to code the scenarios accurately according to the task analysis across multiple sessions as described above, additional training was going to be provided by sending the micro-training video to be viewed again. However, due to the variability in responding for those participants that did not quickly achieve criteria, the micro-training video was not sent again. Social validity was assessed following the final intervention session along with a live role play of a previously reported scenario to determine generalization of self-advocacy skills.

Maintenance. Follow up scenario viewing and coding sessions will be conducted for approximately four months (between 30-120 days) after the final intervention session to determine retention of skills learned.

Procedural Fidelity

There was minimal interaction between the researcher and participants after initial explanation of the procedures. Participants received pre-recorded and pre-written instructions for viewing, analyzing, and coding the video scenarios. The coding was automatically compared to the correct answers and recorded as correct/incorrect.

Interrater Reliability (IRR)

Interrater reliability was conducted on all sessions and all videos. Each video was viewed by the primary investigator and two expert peers and ‘correct’ scores were agreed upon. When participants coded pre-recorded video role plays, they entered their ratings into an automatically scored Qualtrics survey, which was compared against previously established correct ratings for each video.

Data Analysis

The gathered information was examined using visual inspection procedures to determine whether a functional relation between the independent and dependent variables was achieved. Data patterns were examined both within conditions for level, trend, and stability or variability of data and between conditions to identify if a behavior change has occurred. Immediacy of effect moving from baseline to intervention, overlapping data, and consistency of data patterns was all be examined (Ledford & Gast, 2014; Wolfe et al., 2019). Data was also examined for endurance and stability of performance over time and speed of skill acquisition (Wong et al., 2022). There were four tiers for comparison of change in behavior and since two or more tiers were confirmed using visual analysis (Ledford et al., 2018), Type I errors should be diminished and power should be acceptable (Lanovaz & Turgeon, 2020). Data was also be compared to the established correct ratings for each video to determine consistency of responding by participant, across participants, and when compared to the standard (Ledford & Wolery, 2013).

A parametric analysis was used to analyze data. Specifically, a log response ratio effect size measure was chosen as it has been shown useful to measure the proportional change in directly observed behavior as the outcome measure between experimental conditions (Pustejovsky, 2015; Pustejovsky & Ferron, 2017) and is also appropriate to use when the zero

value on the measurement scale indicates an absence of behavior, which in this case is true as zero indicates no correct responses on the task (Pustejovsky, 2018). Effect size was examined between experimental conditions and across time. Additional data analysis procedures that were not predetermined were also used to further describe the data and examine patterns in responding (i.e., descriptive statistics, percentage of non-overlapping data).

Conclusion

Participants completed several assessments to determine their baseline levels of self-advocacy, self-efficacy, and knowledge of supervision and the fieldwork experience. They then viewed role-play videos and rated them, providing baseline data to compare to future potential behavior change. They then watched a brief micro-training online, followed by a brief post-test. Participants then viewed new role play videos using the previously trained task-analysis until they reached stable, accurate performance. Once that was achieved, they received follow up self-advocacy assessments. Data was analyzed using visual inspection and several parametric procedures. Chapter Four provides the results of the experiment.

Chapter 4

Results

A nonconcurrent multiple baseline across participants design was used to examine participant ability to recognize effective self-advocacy behaviors in role-play scenarios between a supervisor and supervisee using a task-analysis. The results are organized by research question.

Research Question 1: Can a functional relation can be established between a virtual, micro-training and accurate identification of components of a self-advocacy task list in short video vignettes by fieldwork students?

The first data to be examined was the results of the quiz that participants completed to assess their knowledge of the requirements of the behavior analytic fieldwork experience and their confidence in that knowledge prior to and after completing the micro-training (self-efficacy assessment). In pre-test, participants scored at least 13 out of 15 points. Two participants scored 13 points, one participant score 14, and one participant scored 15. They then rated their confidence in their answers. Three participants rated their confidence at 4 out of 5 and one participant rated their confidence as a three. After completing the training, participant scores increased to 15 out of 15 and their confidence in their answers increased to five out of five for every participant. The mean initial pre-test score was 13.75 out of 15 and the mean post-test score was 15 out of 15. The mean pre-test confidence rating was 3.75 out of 5. The mean post-test confidence rating was 5 out of 5. All of the three participants that scored 100% were ‘mostly confident’ with their answers. The one participant that scored 80% had ‘little confidence’ in his answers.

Table 12

Results of Self-Efficacy Assessment of Knowledge of Fieldwork Requirements

	Participant	Ellie	Lauren	Emily	Todd
Pre-test	Score	13	15	14	13
	Confidence rating	4	4	4	3
Post-test	Score	15	15	15	15
	Confidence rating	5	5	5	5

After completing the micro-training, the participants completed a brief quiz to assess short-term retention of the information. Table 13 contains the results. All but one participant scored 100% on the assessment. The one question the fourth participant scored incorrectly was discussed with the participant and it was interpreted with more rigidity than was intended (the question was: “When learning how to give feedback to your supervisor, you could copy someone else who is really good at giving feedback and being a self-advocate when you are providing your feedback.”). The participant thought that you should come up with your own way to give feedback rather than just copying someone, but using a model can be good practice in this situation when you are first learning.

Table 13

Results of Post-Micro-Training Assessment of Content and Confidence in Responses

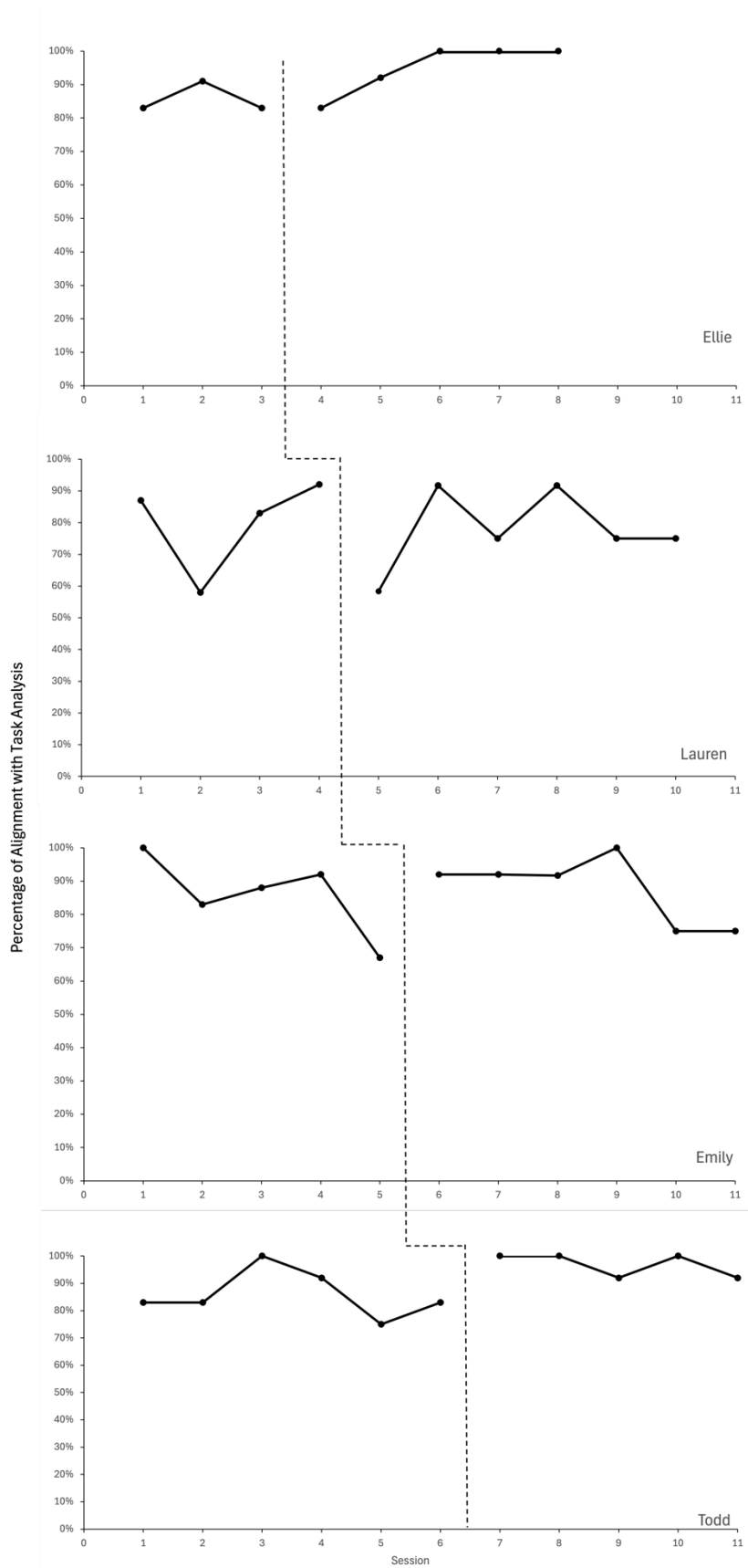
Participant	Q1	Q2	Q3	Q4	Q5	Confidence Rating	Accuracy
Lauren	False	True	False	True	False	mostly confident	100%
Emily	False	True	False	True	False	mostly confident	100%

Ellie	False	True	False	True	False	mostly confident	100%
Todd	False	True	False	False	False	little confidence	80%
Answers	FALSE	TRUE	FALSE	TRUE	FALSE		

The participants were then assigned into an order of receiving videos for coding. All participants received baseline videos at the same time, but not in the same order. Each participant received videos 1-3 in the baseline condition. As each participant remained in baseline past the previous participant, additional videos were added into the baseline rotation. Participants completed the video coding on their own timeline, so some took longer than others to complete videos. Typically, videos were completed within 24-48 hours of receiving the link via email. Participants were moved out of baseline and into intervention condition based on pre-determined session number criteria due to the number of videos that were available for participants to view. Participants viewed videos in a random order during the intervention condition. Four tiers of comparison were conducted (multiple baseline across four participants) and at least two of the participant's behavior were confirmed via visual analysis and PND calculations to have a functional relation between behavior change and intervention. This indicates that Type I errors are diminished and power could be considered acceptable (Lanovaz & Turgeon, 2020). The graph displaying the multiple baseline across participant data can be seen in Figure 5.

Figure 5

Results of Participant Accuracy Rating of Role-play Videos Across Sessions.



After initial visual inspection, two participants (Ellie and Todd) demonstrated a change from baseline to intervention condition, and two participants did not demonstrate much change across conditions. Ellie was the first participant and demonstrated stable responding in baseline (level around an average score of 86%, with a range of 7, and a variability range of -3 to +5). The overall trend of Ellie's baseline data had a slope of zero. When the intervention condition was introduced, Ellie did not increase her score right away (remained at 82% accuracy) but by the second data point, had improved to 92% accuracy and then maintained at 100% accuracy for the next three points. Ellie's average intervention accuracy score was 95%, nine points above baseline (range of 17). Trend in intervention increased over time and then remained stable. Percentage of nonoverlapping data (PND) was calculated and yielded an effect size of PND=80% and a p-value of 0.05 (Tarlow & Pendland, 2016). A PND of 80% suggests an effective intervention (Scruggs & Mastropieri, 1998).

Lauren was the second participant, and entered the intervention phase after four data points were collected in baseline. Baseline data was relatively stable in responding other than an outlier data point (session 2; average score of 80% with a range of 34). Variability ranged from -22 to +12 when including the outlier, or from -4 to +5 without the outlier. Slope for baseline data was calculated to be 0.04, close to a zero or stable slope. The first data point post introduction of intervention was actually equivalent with the lowest baseline score. Intervention data did not demonstrate a consistent trend due to variability of data, with a slope of 0.01. Data was variable, with a range of scores from 58% to 92% (range of 34, varying from -19 to +14 around the average score of 78%). Percentage of nonoverlapping data was calculated using an online calculator (Pustejovsky et al., 2024) and yielded an effect size of PND=0% and a p-value of 1,

indicating no effect of intervention on behavior. Both visual inspection and PND calculation revealed complete overlap of baseline and intervention data.

Emily was the third participant and entered the intervention phase after five data points were gathered in baseline. Baseline data varied around an average of 85%, with a range of 33, varying from -3 to +14 around the mean score). Baseline data was relatively stable around the middle three data points, with relative outliers at the first and fifth data point (slope of -0.019). However, overall there was too much variability in the data to claim overall stability in responding. The first data point after intervention introduction (92%) was slightly higher than the last baseline data point (67%), but only slightly higher than the average baseline data point (85%). Intervention performance varied after relatively high and stable responding for the first four data points, dropping to 75% accuracy with the final two data points. Data ranged from 75% to 100% in the intervention condition (range of 25, varying from -13 to +12 around the mean score of 88%). Intervention data did not demonstrate a consistent trend due to that variability, with a slope of -0.026. Percentage of nonoverlapping data was calculated and yielded an effect size of $PND=0\%$ and a p-value of 1, indicating no effect of intervention on behavior. For Emily, both visual inspection and PND calculation revealed complete overlap of baseline and intervention data.

Todd was the fourth participant and entered the intervention phase after six data points were gathered in baseline. Baseline data varied from -11 to +14 around an average of 86% accuracy, with a range of 25. Baseline data did not demonstrate a trend (slope of -0.009) but had too much variability to be considered stable. However, after intervention was introduced, responding consistently was recorded at 92% or higher and an immediate change in behavior was recorded. Visual inspection revealed that most data points in intervention are higher and more

stable than most of the baseline data points, and the average intervention data point (92%) was higher than the average baseline data point (86%). Data ranged from 92% to 100% in the intervention condition (range of 8, varying from -5 to +3 around the mean). Percentage of nonoverlapping data was calculated and yielded an effect size of PND=0 and a p-value of 1, indicating no effect of intervention on behavior. However, visual inspection revealed what appears to be an overall increase and stability in responding over baseline.

Due to the limitations of PND for calculating an effect size in data sets with outliers, percentage of all non-overlapping data (PAND) was considered for the complete participant data set (Parker et al., 2007). PAND calculations revealed a more sensitive analysis of scores, suggesting a positive effect of the intervention for all participants. For Ellie, more than 75% of data points in intervention were higher than the in baseline, suggesting a positive effect of the intervention. For Lauren, more than 60% of data points in intervention were higher than in baseline. For Emily, more than 64% of data points in intervention were higher than in baseline. For Todd, more than 92% of data points were higher in intervention than in baseline. Table 14 contains results of PND and PAND calculations.

Table 14

Results of PND and PAND calculations

	Average Baseline Score	Average Intervention Score	PND	PAND
Ellie	82%	95%	80%	75%
Lauren	80%	78	0	60%

Emily	85%	88%	0	64%
Todd	86%	92%	0	82%

A parametric analysis was also conducted on the multiple-baseline data in order to measure the proportional change in participant ability to accurately rate self-advocacy behavior. A log response ratio (LRR) parametric analysis was chosen to quantify the potential functional relations in terms of proportionate change in observed behavior (Pustejovsky, 2015). There was a proportionate change in the outcome from baseline to intervention for all participants. Todd's rating had the most change, with a 12% increase in mean score from baseline to intervention. Ellie had the second most change, with an 11% increase. Emily's average score increased by 2%. Lauren's average score actually decreased from baseline to intervention by 3%. There are not published significance values associated with proportionate change using LRR at this time and the statistic should be interpreted in light of what is a meaningful change in the behavior for that context. See Table 15.

Table 15

Results of Log Response Ratio Calculations

Participant	Effect size	Standard	95% CI	Percentage
	estimate	error		Change
Ellie	0.1	0.05	[0.01, 0.20]	11
Lauren	-0.03	0.12	[-.26, 0.20]	-3
Emily	0.02	0.08	[-.014, 0.18]	2
Todd	0.12	0.05	[0.03, 0.21]	12

Alignment of participant rating on the task analysis for each video that was coded was also compared across participants. Table 16 displays the percent alignment of each participant's rating, the average rating, and the discrepancy of the average rating to the standard (100% accurate). Not all participants watched every video due to number of data points needed to establish a trend and to reach the at least 90% criteria for intervention completion. Most videos had a difference between the mean of participant responses and the desired score (100%) of less than 20 percentage points (n=13, 76%). Two videos had less than five percentage point difference. Five videos had between 5 and 10 percentage points difference. Six videos had a percentage point difference between 11-20. Four videos had between a 25-50 percentage point difference. There is not an identifiable pattern and videos used for baseline did not tend to have a larger discrepancy of accurate scoring than did videos used in the intervention condition. Discrepancy between the average participant score and the score identified by the primary investigator and experts is also depicted in Table 16 and Figure 6 below.

Table 16

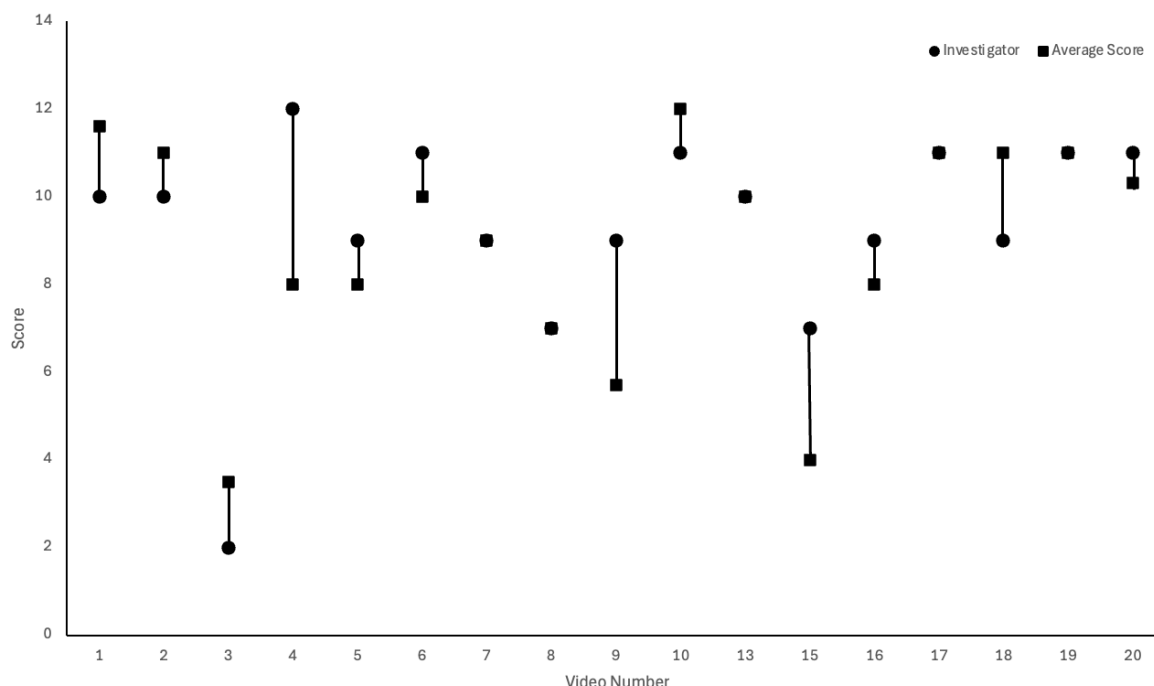
Alignment of Each Participants' Ratings on Video Task Analysis

Video #	Percentage Alignment with Investigator Rating on Task Analysis					
	Ellie	Lauren	Emily	Todd	Average	Discrepancy
1	83%	87%	88%	83%	85.3%	14.8
2	83%	83%	83%	83%	83.0%	17.0
3	92%	58%	100%	100%	87.5%	12.5
4	100%	-	75%	100%	91.7%	8.3
5	58%	-	-	-	58.0%	42.0

6	-	92%	83%	92%	89.0%	11.0
7	-	-	92%	92%	92.0%	8.0
8	-	58%	75%	-	66.5%	33.5
9	83%	-	67%	100%	83.3%	16.7
10	-	92%	92%	-	92.0%	8.0
13	-	75%	-	-	75.0%	25.0
15	-	-	-	75%	75.0%	25.0
16	-	-	92%	-	92.0%	8.0
17	-	-	100%	-	100.0%	0.0
18	92%	92%	-	92%	92.0%	8.0
19	92%	-	-	100%	96.0%	4.0
20	83%	100%	92%	50%	81.3%	18.8

Figure 6

Discrepancy in score between participants and investigator identified score per video



Participants also completed a self-rating of self-advocacy skills. Results of the self-advocacy rating scale (see Table 17 below) pre-and post-assessments show an improvement for all participants that completed the post-assessment (Emily was not able to complete the assessment). Ellie gained 15 points on the self-rating from pre- to post-assessment (from 33 to 48) and gained an average of 1.36 points per question, a 45% change overall. Ellie rated herself higher on all but one question (which was to “Request resources to learn to do projects more effectively”) on which she had already rated herself a five out of five. Lauren gained 13 points overall and gained an average of 1.18 points per question, a 31% change overall. She rated herself higher on every question but two, on which she had already rated herself a five of five. Todd gained 5 points overall and gained an average of 0.45 points per question, a 10% change overall. He rated himself higher on only five questions, as he had rated himself at a five on seven of the questions on the initial self-assessment.

The initial expert coding of the videos is represented in Table 18 below. This represents the amount of agreement on each item in the task analysis. After the initial coding, experts discussed the video contents to come to a final agreement about coding and final score. Because of the outliers in the data and reporting from participants that some videos were more difficult to interpret than others (see discussion in social validity section below), a question of potential correlation between initial low agreement scores and high discrepancy scores for participants emerged. In order to determine whether there was a correlation between the initial expert agreements on the task analysis coding of each video to participant discrepancy from the investigator's identified scores, a Pearson's correlation analysis was considered. Data met most of the key assumptions (that is, ratio data, non-missing values, linear relationship, independent cases, and bivariate normality). However, the data set does have outliers, so rather than a Pearson's correlation, a Kendall's Tau correlation was chosen instead as it is less sensitive to outliers than a Pearson's correlation and is preferred when using smaller data sets. The data revealed non-statistically significant correlation between the initial agreement scores of the expert raters and the discrepancy of ratings by participants ($\tau_b = -.340, p = .075$).

Table 18

Initial Results of Primary Investigator and Expert Coding of Videos

Video #	% Initial Agreement	Video #	% Initial Agreement
1	83	11	58
2	75	12	83
3	83	13	67
4	83	14	67
5	50	15	50
6	92	16	67
7	42	17	83
8	58	18	83

9	58	19	75
10	67	20	75

Three out of four participants agreed to follow up virtual social validity interviews and role plays. Each participant was given a scenario that related to a problem that occurred in their personal supervisory relationship at the start of the study. Ellie was given a scenario that involved a supervisor expecting her to implement an intervention procedure she did not have the competency to implement without any help. Her behavior in the role play aligned 100% with the task analysis. Lauren was given a scenario that required her to ask for more in-person supervision in a primarily virtual supervisory relationship. Lauren's behavior in the role play aligned 100% with the task analysis. Todd was given a scenario where his supervisor kept missing supervisory meetings and refused to reschedule them. Todd's behavior in the role play aligned 92% with the task analysis. Table 19 displays their alignment with the task list during this role play.

Table 19

Alignment of Final Role play video with task list criterion

Self-Advocacy Role Play Task Analysis Scores													Final Score
	1	2	3	4	5	6	7	8	9	10	11	12	
Ellie	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%
Lauren	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%
Todd	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	92%

Research Question 2: Will the micro-training and its effects be socially valid for participants?

Participants reported enjoying their experience in the research. They reported that the intervention was a very small time commitment with a benefit attached and would recommend it for others to learn self-advocacy skills to improve their experiences not only in fieldwork supervision but potentially as an RBT or a practicing BCBA in the future, whenever dealing with a supervisory relationship. One participant noted that the way the experience was set up made it easy to participate and did not feel like much of a time commitment at all.

They found the intervention helpful as it added new steps to self-advocacy that they did not previously recognize as necessary. One participant said, “I would have graded myself pretty high in self-advocacy prior to this,” but then reported having to reframing her thinking according to the task analysis. The same participant also reported being unsure of the background and experiences of the supervisee in the video, and therefore was not as willing to say the supervisee should be pushing back on the supervisor or recognizing that what the supervisor was asking was possibly unethical or just uncomfortable for the supervisee. She reported that, in real life, she is much more willing to push back because she knows her own skills.

Research Question 3: Can the self-advocacy skills can be taught to competency using didactic training and a task list in isolation or is additional coaching is required?

While participants reported that the entire package was beneficial, they found the most benefit in the task analysis and watching the videos of supervisor/supervisee role play interaction to be the most helpful. Two of the participants reported they actually gained information from watching the supervisee interactions with the supervisor. However, some of the videos they found to be too nuanced and were uncertain what the video was trying to communicate. One participant suggested adding a few additional definitions or descriptions for each video so the participants had a better understanding of the situation up front. Another described that

sometimes she was unsure whether the behaviors in the video were due to accidents or inadvertent responses by the actors or were actually a part of the script and were supposed to be in the video.

All three participants reported that the videos were the most salient part of the intervention. Two did not feel as though they needed the initial training and would have learned the same skills just from the videos and the task analysis. No one reported that the task analysis alone, without additional videos models, would have been helpful. One participant suggested that more role plays would be really beneficial, as even though they are difficult and uncomfortable, they find that they learn a lot from role plays in their own supervision experience. When watching the videos, the participants sometimes they identified their own faulty behavior in their previous interactions. They then talked about being able to apply some of the task analysis steps upon reflection to how they could interact better with supervisors in the future.

Conclusion

Two of the four participants demonstrated enough of a behavior change from baseline to intervention condition to constitute a functional relation within their data; however, the other two participants had too much variation in their data sets to reliably claim from visual inspection or statistical analysis that the intervention resulted directly in behavior change. Social validity interviews further informed the data and suggested that portions of the intervention may have been more effective than others at changing participant behavior on identifying self-advocacy behaviors in video role plays. All three participants that completed a follow up live role play did demonstrate accurate use of the self-advocacy task analysis. In Chapter Five, the results are discussed further, limitations are described, and future directions are explored.

Chapter 5

Discussion

The primary goal of this study was to determine whether a functional relation could be established between a virtual, micro-training and accurate identification of components of a self-advocacy intervention task list in short video vignettes by fieldwork students. Ancillary questions about the social validity of the intervention and which pieces of the intervention were most effective at changing behavior also guided this work.

Video Rating Using the Task Analysis

While two participants did show a distinct difference between baseline and intervention conditions, two others did not. Both visual inspection and statistical analysis of the data (use of PAND and LRR) supported these conclusions. The outliers that occurred in the data sets for the second through fourth participants resulted in highly variable data for one participant (Lauren), a difficulty determining a functional relation for another due to outliers on either end of the baseline condition and outliers at the end of the intervention condition (Emily), and a reduced strength of functional relation for the final participant (Todd).

There could be several reasons for the outliers. Each video was examined in further detail to determine if there were features in common that may have resulted in confusion when scoring. The first three baseline videos appear to be a bit too obvious in what they were trying to portray. Video three was an outlier for the final three participants, with a very high score (100%) in baseline. Interestingly, the fourth participant scored the lowest accuracy of all their data points at 58% accuracy. One of the participants noted in follow up social validity interview that she sometimes conflated acting with actual responses and second guessed whether or not that specific behavior was intended to be included in the video and should be scored as such. That

may account for some of the variance in scoring. There were not as many outliers in common in the intervention condition as the video order was randomized and not all participants watched all of the videos.

In addition to the visual inspection results, outliers affected the parametric calculations. A percentage of non-overlapping data calculation was not appropriate, so a percentage of all non-overlapping data calculation was used instead. This was a better descriptor of the data set as a whole, but the outliers did interfere with what seemed to be overall learning on the part of the participants. Those videos that resulted in outliers need to be further examined for some additional variables now that this initial research has taken place. The content may not have been as valid as other videos when compared to the task analysis. There may also need to be criteria developed for the believability of the role play and the extent to which the actors are believable such that participants will not second guess what is happening in the video.

Video as Model

Potential issues with content validity of the videos were also noticed on a few videos that had a wide range of initial scores by the primary investigator and the experts. There was discussion that led to agreements in scoring, but again this process will likely benefit from additional criteria and re-creation of some videos to better reflect the project.

An additional consideration is that participants reported learning directly from the videos. Several described that they had changed their own behavior based on how the supervisees in the role play videos behaved. They were able to distinguish between examples and non-examples of good supervisory behavior given the task analysis. This addresses the research question examining whether or not the full intervention package was actually needed, or whether one component was sufficient for teaching. The hypothesis at the start was that a short micro-training

and a task analysis tool may be sufficient enough for supervisees to understand the components of a good fieldwork experience and how to self-advocate. However, the participants were unanimous in their responses during the social validity interviews that the videos plus the task analysis were actually the most helpful part of the intervention.

Training Efficiency

The idea behind testing a short micro-training was the hope that staff could be trained quickly and easily using a 20-minute video. However, the participants reported that the videos and task analysis was actually an efficient means of learning. Each video was only about 2-3 minutes, and it took them another minute or so to rate the video on the task analysis. Participants completed one video per day several times per week, which adds up to no more than about 8-10 minutes per week of training. An additional role play teaching could add another 2-3 minutes per week, or even once per month, for a very brief but effective treatment package. Participants found this part of the intervention very socially valid, in that they experienced behavior change, it was quick and easy, and felt positive about the experience, which aligned with what Gupta and colleagues (2010) identified as factors related to a successful experience.

Self-Efficacy

The concept of self-efficacy, while remaining very important, did not play as much of a role in this current study as it might have given a different set of participants. The hypothesis going into this work was that many of the issues in fieldwork experiences were due to the supervisees not fully understanding what they needed from the experience and therefore were not advocating for specific improvements. They might generally feel that the experience was lacking but could not define exactly why. This was based on anecdotal experiences from teaching in the behavior analytic coursework sequence as well as in private practice when new supervisees

would report on previous experiences. The participants that opted in to this research, however, were already very self-efficacious in their knowledge of the fieldwork experience required to become a BCBA. This may have also led to the lack of value they found in the micro-training video portion of the research. Again, anecdotally, previous supervisees and students in coursework have reported having less than optimal supervisory experiences, which indicates this may be more impactful and result in a greater change in behavior for participants in a different setting. However, recruiting those participants may prove somewhat challenging unless partnering with an organization or another university's ABA program for future research and training.

Despite the seeming lack of saliency of self-efficacy as a relevant construct for this project, the participants were not aware of all of the components of highly effective self-advocacy skills, so learning those through watching the videos, rating the videos with the task analysis, and engaging in role play, did in fact improve their knowledge of a component of the task. They did not feel confident in their knowledge of the task analysis until towards the end of the intervention and by the time the final role play was conducted, none felt like they needed the task analysis in front of them to accurately perform each of the steps in a spontaneous condition. They gained, as Bandura (1977, p. 193) described it, “the conviction that [they] can successfully execute the behavior required to produce the outcomes,” and do so “generatively” (Bandura, 1986, p. 122).

Self-Advocacy

Examining the concept of self-advocacy and whether that complex set of skills could be changed through a fairly simple intervention was also of interest in this work. As noted above, self-advocacy has not often been applied to adults outside of the disability community, but

students working toward their certification as a behavior analyst regularly report feeling taken advantage of by their supervisors (DiGennario Reed & Henley, 2015). The self-advocacy skill set is an important addition to a fieldwork supervision experience not just to improve that experience in the moment, but also to teach a future behavior analyst how to advocate for themselves in future employment situations that are less than ideal or when dealing with ethical dilemmas. Further, all four participants reported being happy in their current fieldwork experiences only after leaving one or more previous positions with an unsatisfactory supervisor. Each of them described the situation, that they had expressed their concerns a few times but when those concerns were not resolved, they found it easier to leave that situation and find a new one than continuing to push. This new set of skills may have allowed them to continue on, receive a better experience, and even support behavior change for those working in that setting to potentially improve experiences for other students.

This is even more important for practitioners working in rural settings, where additional barriers and limitations exist for specialized professionals, and require them to advocate to those who do not fully understand the service that they provide. Two of the four participants work in rural communities providing services to children where behavior services are few and far between. This will be of utmost importance for them.

Behavior Skills Training

This intervention was conceptualized around extracting a few components of behavior skills training to determine if a student pursuing a national certification would be capable of learning without needing extensive in person training. Those students were, indeed, able to learn without extensive training, but there does need to be reliance on repetition of skill across time, feedback (even if provided through matching scores on a task analysis, that requires very little

ongoing instructor time), and modeling (again, can be done in advance using video modeling). The modeling component of this intervention was not anticipated but was a component of the behavior skills training process that was observed by the participants and noted to be very helpful.

Contribution to the Literature Base

The recent literature review conducted by Kranak and colleagues (2023) described the published work around fieldwork supervision. Of the only four peer-reviewed, published intervention studies examining the fieldwork experience, two focused on trainees. Seven more studies were found that focused on fieldwork supervision (three of which had supervisees as the participant), but these were unpublished dissertations. All of these studies were published in 2023 or later. The two published studies that had supervisees as participants had fieldwork data entry as the dependent variable (i.e., accurate recording of accrued fieldwork hours).

This work adds significantly to this very small research base as it offers a method to improve the supervisee fieldwork experience with a simple to implement intervention. Improving self-advocacy skills has the power to alter a supervisee's experience by improving their relationship with their supervisor; gaining experience with tasks, procedures, concepts, or clients they may not have otherwise; and empowering them to examine their own behavior by reflecting on the behavior of others after viewing role plays. This research also offers a fairly straightforward method to change other supervisee behavior by using video-based intervention, didactic instruction on a tool, and quick feedback sessions. Role play is also another avenue to change behavior that could be useful when applied to supervisee behavior as well. Despite limitations (described below), there are many lessons learned that can be applied to the field at large and potential for additional future research in this area.

Limitations

There were several limitations that impacted the effectiveness of this study as originally conceptualized. Participants self-selected into this study by the very nature of the recruitment strategy. These participants were all very interested in research and wanted to participate in a study to gain experience. These participants could be interpreted as people who are intellectually interested and have a higher degree of commitment to the field and therefore may have more skills related to this particular topic.

The consistency of intervention materials (namely, the video role plays) likely contributed to inconsistency in data. It would have benefitted the materials to run a more extensive validation process for the videos (including both content and acting in the videos—professional actors were not used). Additionally, using a different type of design may have reduced some of the outliers. It may be a more valid assessment to have participants rate all the videos prior to receiving the task analysis, then go back and re-watch all videos and re-rate using the task analysis as a guide.

The operational definition of *effective self-advocacy* as posed to participants in baseline may have also been somewhat confusing. Perhaps the question of “how effective do you find the supervisee’s self-advocacy skills” insinuated an outcome rather than a process measurement and participants rated the videos accordingly rather than in alignment with the task analysis. That could have been a potential limitation that resulted in more inconsistent data for two of the participants. Better clarity in the operational definition of “successful self-advocacy” may reduce some of the variability in scoring. Participants did not always seem to align their score on the task analysis with a successful outcome of the self-advocacy session.

Using baseline decision making that aligns with participant performance rather than a pre-determined number of baseline points across multiple participants was also a limitation. Participants could have been given different training than the repeated video micro-training if interviewed after three consecutive data points that were not following expected trends to determine where and how the information provided was not connecting to the outcome measure.

Future Directions

Despite the participants not being the ideal target to receive this support, their baseline scores (considering outliers) were not consistently at 100% accuracy when determining whether or not the supervisees in the role play were actually engaging in effective self-advocacy according to the task analysis. In follow up interviews, one participant noted that there may actually be a difference in terms of text-book advocacy skills and whether the participant got the desired outcome in the end. This is an area that warrants further investigation, as most of the published work comes from expert suggestion rather than intervention research where actual behaviors are observed. This may be difficult due to the Hawthorne effect (Cooper et al., 2020), especially on the part of the supervisor, which is a limitation to this type of work. Supervisors who are willing to have their behavior observed alongside supervisees may not be those who are in the most need of behavior change.

Both the self-advocacy self-assessment, the task analysis, and the videos themselves would benefit from more extensive validation work. These tools have proven somewhat effective in certain conditions at present and could potentially provide even more benefit in the future if given additional rigor. Additional examination of the current set of materials and development of future materials would provide additional strength to this work, which would of course require a larger sample size.

As noted above, a potential change in the design of the experiment is warranted to investigate which components of this intervention are most effective. Perhaps an alternating treatments design could be used to differentiate effectiveness between the video/task analysis only intervention, additional very limited video instruction (talking about the task analysis), and even an addition of more role play. Multiple participants expressed that the videos as models for how to engage with a supervisor (when those were done correctly) was very helpful for learning. Perhaps the examples and nonexamples would be a good training tool combined with the interactive behavior of rating those videos may be sufficient to result in behavior change. All participants reported not enjoying role plays in general, but find them to be a necessary part of the learning process for practice-based skills. This could be included more fully than just using it as a probe to assess skill generalization in future research.

Conclusion

While there was some effect for the intervention, there is the potential for much more impact with a more simplified format, which may allow for instruction on self-efficacious content and self-advocacy skills in an effective and efficient manner. Reducing the intervention down to the salient components of the task analysis and video model and coding seems to be sufficient enough according to results of assessment pre- and post-micro training, time series data collected, pre- and post-self-advocacy skill self-ratings, and social validity interview data. This work opened up a number of questions for me about future work in the area of self-advocacy for adults working in a supervisee type role. Increasing a supervisee's ability to understand the context and advocate for better working conditions can generally only improve the situation, not only for the supervisee but also for the supervisor, peers, and clients or students. This could be generalized to other similar roles (student teachers, speech language

interns, school psychology interns) or other fields entirely. Tailoring the videos to profession specific circumstances rather than generic self-advocacy situations provides additional learning opportunities and may be a catalyst for more efficient learning. Overall, this work has left me with as many questions as answers and many additional avenues for continued research.

References

- Alavosius, M. P., & Sulzer-Azaroff, B. (1990). Acquisition and maintenance of health-care routines as a function of feedback density. *Journal of Applied Behavior Analysis*, 23(2), 151–162. <https://doi.org/10.1901/jaba.1990.23-151>
- Anderson, R., Taylor, S., Taylor, T., & Virues-Ortega, J. (2022). Thematic and textual analysis methods for developing social validity questionnaires in applied behavior analysis. *Behavioral Interventions*, 37(3), 732–753. <https://doi.org/10.1002/bin.1832>
- Andzik, N. R., & Kranak, M. P. (2021). The softer side of supervision: Recommendations when teaching and evaluating behavior-analytic professionalism. *Behavior Analysis: Research and Practice*, 21(1), 65–74. <https://doi.org/10.1037/bar0000194>
- Arghode, V., Brieger, E. W., & McLean, G. N. (2017). Adult learning theories: Implications for online instruction. *European Journal of Training and Development*, 41(7), 593–609. <https://doi.org/10.1108/EJTD-02-2017-0014>
- Arnold, M. L. (2005). Rural education: A new perspective is needed at the U.S. Department of Education. *Journal of Research in Rural Education*, 20, 1–3.
- Atkinson, R., Parry-Cruwys, D., & MacDonald, J. (2023). Training graduate students to enter fieldwork data using asynchronous online instruction. *Behavior Analysis in Practice*, 16(2), 511–529. <https://doi.org/10.1007/s40617-022-00732-6>
- Aubrey Daniels Blog. (2015). *Bringing Out the Best*. Retrieved from <http://aubreydaniels.com/blog/>
- Baer, D. M., & Risley, T. R. (1987). Some still-current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 20(4), 313–327.

- Bahrack, A. S. (1989). *Role induction for counselor trainees: Effects on the supervisory working alliance* (Publication No. 303821611) [Doctoral dissertation, The Ohio State University]. ProQuest Dissertations & Theses Global.
<https://login.ezproxy.lib.ou.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Frole-induction-counselor-trainees-effects-on%2Fdocview%2F303821611%2Fse-2%3Faccountid%3D12964>
- Bailey, J., & Burch, M. (2010). *25 Essential Skills and Strategies for the Professional Behavior Analyst: Expert Tips for Maximizing Consulting Effectiveness*. Routledge.
- Baker, E. N. (2006). *The relationship between perceived self-efficacy and clinical supervision among student therapists* (Publication No. 304910897) [Masters thesis, California State University, Long Beach]. ProQuest Dissertations & Theses Global.
<https://login.ezproxy.lib.ou.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Frelationship-between-perceived-self-efficacy%2Fdocview%2F304910897%2Fse-2%3Faccountid%3D12964>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215.
- Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Prentice Hall.
- Barger-Anderson, R., Domaracki, J. W., Kearney-Vakulick, N., & Kubina, R. M. (2004). Multiple baseline designs: The use of a single-case experimental design in literacy research. *Reading Improvement*, 41, 217.

- Behavior Analyst Certification Board (“BACB”). (n.d.). *Supervision, assessment, training, and oversight*. Behavior Analyst Certification Board. <https://www.bacb.com/supervision-and-training/>
- Behavior Analyst Certification Board (“BACB”). (2018). Supervisor training curriculum outline (2.0). <https://bacb.com/wp-content/Supervisor-Training-Curriculum>
- Behavior Analyst Certification Board (“BACB”). (2022a). *Board certified behavior analyst handbook*. Behavior Analyst Certification Board.
- Behavior Analyst Certification Board (“BACB”). (2022b). *BCBA test content outline* (6th ed.). <https://www.bacb.com/wp-content/bcba-outline-6thEd/>
- Behavior Analyst Certification Board (“BACB”). (2023b). *BACB certificant data*. Behavior Analyst Certification Board. Retrieved from [bacb.com/bacb-certificant-data](https://www.bacb.com/bacb-certificant-data)
- Benazzi, L., Horner, R. H., & Good, R. H. (2006). Effects of behavior support team composition on the technical adequacy and contextual fit of behavior support plans. *The Journal of Special Education, 40*(3), 160–170. <https://doi.org/10.1177/00224669060400030401>
- Berry, A. B., Petrin, R. A., Gravelle, M. L., & Farmer, T. W. (2011). Issues in special education teacher recruitment, retention, and professional development: Considerations in supporting rural teachers. *Rural Special Education Quarterly, 30*(4), 3–11. <https://doi.org/10.1177/875687051103000402>
- Bethune, K. S., & Kiser, A. (2017). Doing more with less: Innovative program building in ABA and special education in a rural setting. *Rural Special Education Quarterly, 36*(1), 25-30. <https://doi.org/10.1177/8756870517703395>

- Black, G. L. (2015). Developing teacher candidates' self-efficacy through reflection and supervising teacher support. *In Education*, 21(1), 78–98.
<https://doi.org/10.37119/ojs2015.v21i1.171>
- Bodenhorn, N., Wolfe, E., & Airen, O. (2010). School counselor program choice and self-efficacy: Relationship to achievement gap and equity. *Professional School Counseling*, 13(3), 165–174. <https://doi.org/10.5330/PSC.n.2010-13.165>
- Bovi, G. M. D., Vladescu, J. C., DeBar, R. M., Carroll, R. A., & Sarokoff, R. A. (2017). Using video modeling with voice-over instruction to train public school staff to implement a preference assessment. *Behavior Analysis in Practice*, 10(1), 72–76.
<https://doi.org/10.1007/s40617-016-0135-y>
- Bowhersh, A. E. (2020). *Toward an evidence-based supervision model of independent fieldwork* (Order No. 27959028) [Doctoral dissertation, Simmons University]. ProQuest Dissertations & Theses Global.
- Brock, M. E., & Carter, E. W. (2015). Effects of a professional development package to prepare special education paraprofessionals to implement evidence-based practice. *The Journal of Special Education*, 49(1), 39–51. <https://doi.org/10.1177/0022466913501882>
- Brodhead, M. T., & Higbee, T. S. (2012). Teaching and maintaining ethical behavior in a professional organization. *Behavior Analysis in Practice*, 5(2), 82–88.
<https://doi.org/10.1007/BF03391827>
- Brown, T. J. (2021). Ethics, burnout, and reported life and job attitudes among board-certified behavior analysts. *Behavior Analysis: Research and Practice*, 21(4), 364–375.
<https://doi.org/10.1037/bar0000219>

- Calley, N. G. (2001). *Sequential supervisory styles: Examining the impact on counselor development* (Publication No. 304724949) [Doctoral dissertation, Wayne State University]. ProQuest Dissertations & Theses Global.
<https://login.ezproxy.lib.ou.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fsequential-supervisory-styles-examining-impact-on%2Fdocview%2F304724949%2Fse-2%3Faccountid%3D12964>
- Calloway, M., Fried, B., Johnsen, M., & Morrissey, J. (1999). Characterization of rural mental health service systems. *The Journal of Rural Health: Official Journal of the American Rural Health Association and the National Rural Health Care Association*, 15(3), 296–307. <https://doi.org/10.1111/j.1748-0361.1999.tb00751.x>
- Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, 44(6), 473–490.
<https://doi.org/10.1016/j.jsp.2006.09.001>
- Cara, E. D. (2000). *The effects of a prepracticum educational module on self-efficacy, self-esteem, anxiety, and performance* (Publication No. 276060817) [Doctoral dissertation, The Fielding Institute]. ProQuest Dissertations & Theses Global.
<https://login.ezproxy.lib.ou.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Feffects-prepracticum-educational-module-on-self%2Fdocview%2F276060817%2Fse-2%3Faccountid%3D12964>
- Carnegie, D. D. (1981). *How to Win Friends and Influence People (Revised Edition)*. Simon & Schuster;

- Carr, J. E., Austin, J. L., Britton, L. N., Kellum, K. K., & Bailey, J. S. (1999). An assessment of social validity trends in applied behavior analysis. *Behavioral Interventions*, 14(4), 223–231. [https://doi.org/10.1002/\(SICI\)1099-078X\(199910/12\)14:4<223::AID-BIN37>3.0.CO;2-Y](https://doi.org/10.1002/(SICI)1099-078X(199910/12)14:4<223::AID-BIN37>3.0.CO;2-Y)
- Carroll, R. A., Preas, E. J., & Paden, A. R. (2022). Training supervisors to provide performance feedback using video modeling with voiceover instructions: A replication. *Journal of Applied Behavior Analysis*, 55(2), 603–621. <https://doi.org/10.1002/jaba.908>
- Centers for Disease Control and Prevention. (2023, April 18). *Suicide Policy Brief: Preventing Suicide In Rural America*. <https://www.cdc.gov/ruralhealth/suicide/policybrief.html>
- Chapman, R. A., Baker, S. B., Nassar-McMillan, S. C., & Gerler, E. R. (2011). Cybersupervision: Further examination of synchronous and asynchronous modalities in counseling practicum supervision. *Counselor Education and Supervision*, 50(5), 298–313. <https://doi.org/10.1002/j.1556-6978.2011.tb01917.x>
- Clemens, E. V., Shipp, A., & Kimbel, T. (2011). Investigating the psychometric properties of school counselor self-advocacy questionnaire. *Professional School Counseling*, 15(1), 34–44.
- Collins, S., Higbee, T. S., Salzberg, C. L., & Carr, J. (2009). The effects of video modeling on staff implementation of a problem-solving intervention with adults with developmental disabilities. *Journal of Applied Behavior Analysis*, 42(4), 849–854. <https://doi.org/10.1901/jaba.2009.42-849>
- Colson, T., Sparks, K., Berridge, G., Frimming, R., & Willis, C. (2017). Pre-service teachers and self-efficacy: A study in contrast. *Discourse and Communication for Sustainable Education*, 8(2), 66–76. <https://doi.org/10.1515/dcse-2017-0016>

- Cooper, J. O., Heron, T. E., & Heward, W. L. (2020). *Applied Behavior Analysis*. Pearson UK.
- Courtemanche, A. B., Turner, L. B., Molteni, J. D., & Groskreutz, N. C. (2021). Scaling up behavioral skills training: Effectiveness of large-scale and multiskill trainings. *Behavior Analysis in Practice*, 14(1), 36–50. <https://doi.org/10.1007/s40617-020-00480-5>
- Crutchfield, L. B., & Borders, L. D. (1997). Impact of two clinical peer supervision models on practicing school counselors. *Journal of Counseling & Development*, 75(3), 219–230. <https://doi.org/10.1002/j.1556-6676.1997.tb02336.x>
- Cruz, Y. (2019). *Competency-based clinical supervision in applied behavior analysis* [Doctoral dissertation, Nova Southeastern University]. NSUWorks.
- Daniels, A., & Bailey, J. (2014). *Performance Management: Changing Behavior That Drives Organizational Effectiveness, Fifth Edition*. Performance Management Publications.
- Deal, K. H., & Clements, J. A. (2006). Supervising students developmentally: Evaluating a seminar for new field instructors. *Journal of Social Work Education*, 42(2), 291–305. <https://doi.org/10.5175/JSWE.2006.200400492>
- Deliperi, P., Vladescu, J. C., Reeve, K. F., Reeve, S. A., & DeBar, R. M. (2015). Training staff to implement a paired-stimulus preference assessment using video modeling with voiceover instruction: Training staff using video modeling. *Behavioral Interventions*, 30(4), 314–332. <https://doi.org/10.1002/bin.1421>
- Demir, S. (2020). The role of self-efficacy in job satisfaction, organizational commitment, motivation and job involvement. *Eurasian Journal of Educational Research*, 20(85), 205–224. <https://doi.org/10.14689/ejer.2020.85.10>

- Detrich, R. (2018). Rethinking dissemination: Storytelling as a part of the repertoire. *Perspectives on Behavior Science*, 41(2), 541–549. <https://doi.org/10.1007/s40614-018-0160-y>
- DiGennaro Reed, F. D., Blackman, A. L., Erath, T. G., Brand, D., & Novak, M. D. (2018). Guidelines for using behavioral skills training to provide teacher support. *TEACHING Exceptional Children*, 50(6), 373–380. <https://doi.org/10.1177/0040059918777241>
- DiGennaro Reed, F. D., & Henley, A. J. (2015). A survey of staff training and performance management practices: The good, the bad, and the ugly. *Behavior Analysis in Practice*, 8(1), 16–26. <https://doi.org/10.1007/s40617-015-0044-5>
- Doherty, C., Landry, H., Pate, B., & Reid, H. (2016). Impact of communication competency training on nursing students' self-advocacy skills. *Nurse Educator*, 41(5), 252–255. <https://doi.org/10.1097/NNE.0000000000000274>
- Dounavi, K., Fennell, B., & Early, E. (2019). Supervision for certification in the field of applied behaviour analysis: Characteristics and relationship with job satisfaction, burnout, work demands, and support. *International Journal of Environmental Research and Public Health*, 16(12), 2098. <https://doi.org/10.3390/ijerph16122098>
- Emin Türkoğlu, M., Cansoy, R., & Parlar, H. (2017). Examining relationship between teachers' self-efficacy and job satisfaction. *Universal Journal of Educational Research*, 5(5), 765–772. <https://doi.org/10.13189/ujer.2017.050509>
- Erath, T. G., DiGennaro Reed, F. D., & Blackman, A. L. (2021). Training human service staff to implement behavioral skills training using a video-based intervention. *Journal of Applied Behavior Analysis*, 54(3), 1251–1264. <https://doi.org/10.1002/jaba.827>

- Falender, C. A., & Shafranske, E. P. (2004). *Clinical supervision: A competency-based approach*. American Psychological Association.
- Ferguson, J. L., Cihon, J. H., Leaf, J. B., Van Meter, S. M., McEachin, J., & Leaf, R. (2018). Assessment of social validity trends in the journal of applied behavior analysis. *European Journal of Behavior Analysis*, 20(1), 146–157.
<https://doi.org/10.1080/15021149.2018.1534771>
- Fetherston, A. M., & Sturmey, P. (2014). The effects of behavioral skills training on instructor and learner behavior across responses and skill sets. *Research in Developmental Disabilities*, 35(2), 541–562. <https://doi.org/10.1016/j.ridd.2013.11.006>
- Fink, L. D. (2015). *Designing Instruction for Significant Learning*. National.
- Fisher, W. W., Piazza, C. C., & Roane, H. S. (2021). *Handbook of Applied Behavior Analysis*. Guilford Publications.
- Fryling, M. J., Wallace, M. D., & Yassine, J. N. (2012). Impact of treatment integrity on intervention effectiveness. *Journal of Applied Behavior Analysis*, 45(2), 449–453.
<https://doi.org/10.1901/jaba.2012.45-449>
- Gamm, L., & Hutchison, L. (2003). Public health rural health priorities in America: Where you stand depends on where you sit. *The Journal of Rural Health*, 19(3), 209–213.
<https://doi.org/10.1111/j.1748-0361.2003.tb00563.x>
- Gardner, J. M. (1972). Teaching behavior modification to nonprofessionals1. *Journal of Applied Behavior Analysis*, 5(4), 517–521. <https://doi.org/10.1901/jaba.1972.5-517>
- Garza, K. L., McGee, H. M., Schenk, Y. A., & Wiskirchen, R. R. (2018). Some tools for carrying out a proposed process for supervising experience hours for aspiring Board

Certified Behavior Analysts®. *Behavior Analysis in Practice*, 11(1), 62–70.

<https://doi.org/10.1007/s40617-017-0186-8>

Gelfand, M. J., Aycan, Z., Erez, M., & Leung, K. (2017). Cross-cultural industrial organizational psychology and organizational behavior: A hundred-year journey. *Journal of Applied Psychology*, 102(3), 514.

Gerencser, K. R., Akers, J. S., Becerra, L. A., Higbee, T. S., & Sellers, T. P. (2020). A review of asynchronous trainings for the implementation of behavior analytic assessments and interventions. *Journal of Behavioral Education*, 29(1), 122–152.

<https://doi.org/10.1007/s10864-019-09332-x>

Giannakakos, A. R., Vladescu, J. C., Kisamore, A. N., & Reeve, S. A. (2016). Using video modeling with voiceover instruction plus feedback to train staff to implement direct teaching procedures. *Behavior Analysis in Practice*, 9(2), 126–134.

<https://doi.org/10.1007/s40617-015-0097-5>

Glasgow, N., Morton, L. W., & Johnson, N. E. (Eds.). (2004). *Critical Issues in Rural Health*. Blackwell Publishing.

Granpeesheh, D., Tarbox, J., Dixon, D. R., Peters, C. A., Thompson, K., & Kenzer, A. (2010). Evaluation of an eLearning tool for training behavioral therapists in academic knowledge of applied behavior analysis. *Research in Autism Spectrum Disorders*, 4(1), 11–17.

<https://doi.org/10.1016/j.rasd.2009.07.004>

Granziera, H., & Perera, H. N. (2019). Relations among teachers' self-efficacy beliefs, engagement, and work satisfaction: A social cognitive view. *Contemporary Educational Psychology*, 58, 75–84. <https://doi.org/10.1016/j.cedpsych.2019.02.003>

- Greeny, K. (2021). *Supervision in ABA: Implementing a structured supervision tool* [Doctoral dissertation, University of Washington]. ResearchWorks Archive.
<http://hdl.handle.net/1773/48010>
- Guiney, M. C., & Zibulsky, J. (2017). Competent consultation: Developing self-efficacy for process and problem aspects of consultation. *Journal of Educational and Psychological Consultation*, 27(1), 52–71. <https://doi.org/10.1080/10474412.2016.1171718>
- Gupta, P. B., Burns, D. J., & Schiferl, J. S. (2010). An exploration of student satisfaction with internship experiences in marketing. *Business Education & Accreditation*, 2(1), 27–37.
- Gutierrez, J., Reeve, S. A., Vladescu, J. C., DeBar, R. M., & Giannakakos, A. R. (2020). Evaluation of manualized instruction to train staff to implement a token economy. *Behavior Analysis in Practice*, 13(1), 158–168. <https://doi.org/10.1007/s40617-019-00386-x>
- Hajiaghamohseni, Z., Drasgow, E., & Wolfe, K. (2021). Supervision behaviors of Board Certified Behavior Analysts with trainees. *Behavior Analysis in Practice*, 14(1), 97–109. <https://doi.org/10.1007/s40617-020-00492-1>
- Hanley, G. P. (2010). Toward effective and preferred programming: A case for the objective measurement of social validity with recipients of behavior-change programs. *Behavior Analysis in Practice*, 3(1), 13–21. <https://doi.org/10.1007/BF03391754>
- Hanley, G. P. (2017). Editor's note. *Journal of Applied Behavior Analysis*, 50(1), 3–7. <https://doi.org/10.1002/jaba.366>
- Hansard, C., & Kazemi, E. (2018). Evaluation of video self-instruction for implementing paired-stimulus preference assessments. *Journal of Applied Behavior Analysis*, 51(3), 675–680. <https://doi.org/10.1002/jaba.476>

- Hartley, B., & Dubuque, M. (2023). The apprentice model 2.0: Enhancement of the apprentice model. *Behavior Analysis in Practice*. <https://doi.org/10.1007/s40617-023-00799-9>
- Hartley, B. K., Courtney, W. T., Rosswurm, M., & LaMarca, V. J. (2016). The apprentice: An innovative approach to meet the behavior analysis certification board's supervision standards. *Behavior Analysis in Practice*, 9(4), 329–338. <https://doi.org/10.1007/s40617-016-0136-x>
- Harvey, M. T., May, M. E., & Kennedy, C. H. (2004). Nonconcurrent multiple baseline designs and the evaluation of educational systems. *Journal of Behavioral Education*, 13(4), 267–276. <https://doi.org/10.1023/B:JOBE.0000044735.51022.5d>
- Hawkins, A. (2019). *Evaluating the effects of behavioral skills training with behavior analysts to increase essential supervisory skills* [Doctoral dissertation, Rutgers, the State University of New Jersey]. RUCore. <https://rucore.libraries.rutgers.edu/rutgers-lib/61632/>
- Heiniger, S. (in process). Self-advocacy and self-efficacy in fieldwork experiences: A systematic review. *[Manuscript in Preparation]*.
- Higgins, W. J., Luczynski, K. C., Carroll, R. A., Fisher, W. W., & Mudford, O. C. (2017). Evaluation of a telehealth training package to remotely train staff to conduct a preference assessment. *Journal of Applied Behavior Analysis*, 50(2), 238–251. <https://doi.org/10.1002/jaba.370>
- Hirsch, J. K., & Cukrowicz, K. C. (2014). Suicide in rural areas: An updated review of the literature. *Journal of Rural Mental Health*, 38(2), 65–78. <https://doi.org/10.1037/rmh0000018>

- Horner, R. H., & Sugai, G. (2015). School-wide PBIS: An example of applied behavior analysis implemented at a scale of social importance. *Behavior Analysis in Practice*, 8, 80–85.
- Hunsinger-Harris, M. (2020). *An analysis of the effect of an online training on culturally sensitive verbal behavior of supervision in a university-based supervision experience* (Order No. 27995337) [Doctoral dissertation, The Chicago School of Professional Psychology]. ProQuest Dissertations & Theses Global.
<https://www.proquest.com/docview/2428549488/fulltextPDF/B102C95846854890PQ/1?accountid=12924>
- Irwin Helvey, C., Thuman, E., & Cariveau, T. (2022). Recommended practices for individual supervision: Considerations for the behavior-analytic trainee. *Behavior Analysis in Practice*, 15(1), 370–381. <https://doi.org/10.1007/s40617-021-00557-9>
- Jumper, S. A. (1998). *Immediate feedback using the “bug-in-the-ear” in counselor training: Implications for counseling self-efficacy, trainee anxiety and skill development* (Publication No. 304441705) [Doctoral dissertation, The University of North Dakota]. ProQuest Dissertations & Theses Global.
<https://login.ezproxy.lib.ou.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fimmediate-feedback-using-bug-ear-counselor%2Fdocview%2F304441705%2Fse-2%3Faccountid%3D12964>
- Jundt, D. K., Shoss, M. K., & Huang, J. L. (2015). Individual adaptive performance in organizations: A review. *Journal of Organizational Behavior*, 36(S1), S53–S71.
- Kazemi, E., Rice, B., & Adzhyan, P. (2018). *Fieldwork and supervision for behavior analysts: A handbook*. Springer Publishing Company.

- Kazemi, E., & Shapiro, M. (2013). A review of board standards across behavioral health professions: Where does the BCBA credential stand? *Behavior Analysis in Practice*, 6(2), 18–29. <https://doi.org/10.1007/BF03391799>
- Kennedy, C. H. (1992). Trends in the measurement of social validity. *The Behavior Analyst*, 15(2), 147–156. <https://doi.org/10.1007/BF03392597>
- Kennedy, C. H. (2022). The nonconcurrent multiple-baseline design: It is what it is and not something else. *Perspectives on Behavior Science*, 45(3), 647–650. <https://doi.org/10.1007/s40614-022-00343-0>
- Khan, K. S., & Coomarasamy, A. (2006). A hierarchy of effective teaching and learning to acquire competence in evidenced-based medicine. *BMC Medical Education*, 6(1), 59. <https://doi.org/10.1186/1472-6920-6-59>
- Khan, A., Egbue, O., Palkie, B., & Madden, J. (2017). Active learning: Engaging students to maximize learning in an online course. *The Electronic Journal of E-Learning*, 15(2), 107–115.
- Knowles, C., Massar, M., Raulston, T. J., & Machalicek, W. (2017). Telehealth consultation in a self-contained classroom for behavior: A pilot study. *Preventing School Failure: Alternative Education for Children and Youth*, 61(1), 28–38. <https://doi.org/10.1080/1045988X.2016.1167012>
- Kranak, M. P., Andzik, N. R., Jones, C., & Hall, H. (2023). A systematic review of supervision research related to Board Certified Behavior Analysts. *Behavior Analysis in Practice*. <https://doi.org/10.1007/s40617-023-00805-0>

- Lanovaz, M. J., & Turgeon, S. (2020). How many tiers do we need? Type I errors and power in multiple baseline designs. *Perspectives on Behavior Science*, 43(3), 605–616.
<https://doi.org/10.1007/s40614-020-00263-x>
- Lattal, D. (2012, April 13). *The science of success: Creating great places to work*. Retrieved from <http://aubreydaniels.com/pmezine/science-success>
- LeBlanc, L. A., & Luiselli, J. K. (2016). Refining supervisory practices in the field of behavior analysis: Introduction to the special section on supervision. *Behavior Analysis in Practice*, 9(4), 271–273. <https://doi.org/10.1007/s40617-016-0156-6>
- LeBlanc, L. A., Taylor, B. A., & Marchese, N. V. (2020). The training experiences of behavior analysts: Compassionate care and therapeutic relationships with caregivers. *Behavior Analysis in Practice*, 13(2), 387–393. <https://doi.org/10.1007/s40617-019-00368-z>
- Ledford, J. R., & Gast, D. L. (2014). *Single Case Research Methodology: Applications in Special Education and Behavioral Sciences*. Routledge.
- Ledford, J. R., Lane, J. D., & Severini, K. E. (2018). Systematic Use of Visual Analysis for Assessing Outcomes in Single Case Design Studies. *Brain Impairment*, 19(1), 4–17.
<https://doi.org/10.1017/BrImp.2017.16>
- Ledford, J. R., & Wolery, M. (2013). Procedural fidelity: An analysis of measurement and reporting practices. *Journal of Early Intervention*, 35(2), 173–193.
<https://doi.org/10.1177/1053815113515908>
- Lerman, D. C., Vorndran, C. M., Addison, L., & Kuhn, S. C. (2004). Preparing teachers in evidence-based practices for young children with autism. *School Psychology Review*, 33(4), 510–526. <https://doi.org/10.1080/02796015.2004.12086265>

- Lipschultz, J. L., Vladescu, J. C., Reeve, K. F., Reeve, S. A., & Dipsey, C. R. (2015). Using video modeling with voiceover instruction to train staff to conduct stimulus preference assessments. *Journal of Developmental and Physical Disabilities, 27*(4), 505–532. <https://doi.org/10.1007/s10882-015-9434-4>
- Ma, K., & Cavanagh, M. S. (2018). Classroom ready?: Pre-service teachers' self-efficacy for their first professional experience placement. *Australian Journal of Teacher Education (Online), 43*(7), 134–151.
- Maffei-Almodovar, L., Sturmey, P. (2018). Change agent training in behavior analytic procedures for people with developmental and intellectual disabilities: A meta-analysis. *Review Journal of Autism and Developmental Disorders, 5*(2), 129–141. <https://doi.org/10.1007/s40489-018-0128-6>
- Marano, K. E., Vladescu, J. C., Reeve, K. F., Sidener, T. M., & Cox, D. J. (2020). A review of the literature on staff training strategies that minimize trainer involvement. *Behavioral Interventions, 35*(4), 604–641. <https://doi.org/10.1002/bin.1727>
- McGimsey, J. F., & Greene, B. F. (1995). Competence in aspects of behavioral treatment and consultation: Implications for service delivery and graduate training. *Journal of Applied Behavior Analysis, 28*(3).
- McGrath, M. Z., Johns, B. H., College, M., & Mathur, S. R. (2010). Empowered or overpowered? Strategies for working effectively with paraprofessionals. *Beyond Behavior, 19*(2), 2–6.
- McIntyre, L. L., Gresham, F. M., DiGennaro, F. D., & Reed, D. D. (2007). Treatment integrity of school-based interventions with children in the Journal of Applied Behavior Analysis

(1991-2005). *Journal of Applied Behavior Analysis*, 40(4), 659–672.

<https://doi.org/10.1901/jaba.2007.659-672>

Meany-Walen, K. K., Davis-Gage, D., & Lindo, N. A. (2016). The impact of wellness-focused supervision on mental health counseling practicum students. *Journal of Counseling & Development*, 94(4), 464–472. <https://doi.org/10.1002/jcad.12105>

Miles, N. I., & Wilder, D. A. (2009). The effects of behavioral skills training on caregiver implementation of guided compliance. *Journal of Applied Behavior Analysis*, 42(2), 405–410. <https://doi.org/10.1901/jaba.2009.42-405>

Milne, D. L., & James, I. A. (2002). The observed impact of training on competence in clinical supervision. *British Journal of Clinical Psychology*, 41(1), 55–72.

<https://doi.org/10.1348/014466502163796>

Miltenberger, R. G. (2011). *Behavior Modification: Principles and Procedures*. Cengage Learning.

National Center for Education Statistic. (2023a). Children in Rural Areas and Their Family Characteristics. In *Condition of Education*. U.S. Department of Education, Institute of Education Sciences. <https://nces.ed.gov/programs/coe/indicator/lfa>

National Center for Education Statistics. (2023b). *Enrollment and School Choice in Rural Areas. Condition of Education*. U.S. Department of Education, Institute of Education Sciences. <https://nces.ed.gov/programs/coe/indicator/lcb>.

Nedegaard, R. (2017). Overcoming imposter syndrome: How my students trained me to teach them. *Reflections: Narratives of Professional Helping*, 22(4), 52–59.

Newman, D. S., Gerrard, M. K., Villarreal, J. N., & Kaiser, L. T. (2022). Deliberate practice of consultation microskills: An exploratory study of training. *Training and Education in*

Professional Psychology, 16(3), 263–271. APA PsycArticles®.

<https://doi.org/10.1037/tep0000368>

- Oram, L., Owens, S., & Maras, M. (2016). Functional behavior assessments and behavior intervention plans in rural schools: An exploration of the need, barriers, and recommendations. *Preventing School Failure: Alternative Education for Children and Youth*, 60(4), 305–310. <https://doi.org/10.1080/1045988X.2016.1144555>
- Parker, R. I., Hagan-Burke, S., & Vannest, K. (2007). Percentage of all non-overlapping data (PAND) an alternative to PND. *The Journal of Special Education*, 40(4), 194-204.
- Parry-Cruwys, D., Atkinson, R., & MacDonald, J. (2022). Teaching graduate students to identify and adhere to practicum requirements. *Behavior Analysis in Practice*, 15(2), 433–442. <https://doi.org/10.1007/s40617-021-00571-x>
- Parry-Cruwys, D., & MacDonald, J. (2021). Using gamification to promote accurate data entry of practicum experience hours in graduate students. *Behavior Analysis in Practice*, 14(1), 1–10. <https://doi.org/10.1007/s40617-020-00421-2>
- Parsons, M. B., & Reid, D. H. (1995). Training residential supervisors to provide feedback for maintaining staff teaching skills with people who have severe disabilities. *Journal of Applied Behavior Analysis*, 28(3), 317–322. <https://doi.org/10.1901/jaba.1995.28-317>
- Parsons, M. B., Rollyson, J. H., & Reid, D. H. (2012). Evidence-based staff training: A guide for practitioners. *Behavior Analysis in Practice*, 5(2), 2–11. <https://doi.org/10.1007/BF03391819>
- Parsons, M. B., Rollyson, J. H., & Reid, D. H. (2013). Teaching practitioners to conduct behavioral skills training: A pyramidal approach for training multiple human service staff. *Behavior Analysis in Practice*, 6(2), 4–16. <https://doi.org/10.1007/BF03391798>

- Pearson News. (2016). *Pearson Releases Report on Best Practices for Implementing Successful Online Programs at Higher Education Institutions*. Pearson News.
- Pence, S. T., Peter, C. C., & Tetreault, A. S. (2012). Increasing accurate preference assessment implementation through pyramidal training. *Journal of Applied Behavior Analysis*, 45(2), 345–359. <https://doi.org/10.1901/jaba.2012.45-345>
- Petscher, E. S., & Bailey, J. S. (2006). Effects of training, prompting, and self-monitoring on staff behavior in a classroom for students with disabilities. *Journal of Applied Behavior Analysis*, 39(2), 215–226. <https://doi.org/10.1901/jaba.2006.02-05>
- Pfitzner-Eden, F. (2016). Why do I feel more confident? Bandura's sources predict preservice teachers' latent changes in teacher self-efficacy. *Frontiers in Psychology*, 7. <https://doi.org/10.3389/fpsyg.2016.01486>
- Piazza, J. (2021). *Aspiring supervisor training: Implementing a training package to instruct evaluating ethical scenarios* (Order No. 28647455) [Doctoral dissertation, Endicott College]. ProQuest Dissertations & Theses Global. <https://www.proquest.com/docview/2564931453?pq-origsite=gscholar&fromopenview=true>
- Plantiveau, C., Dounavi, K., & Virués-Ortega, J. (2018). High levels of burnout among early-career board-certified behavior analysts with low collegial support in the work environment. *European Journal of Behavior Analysis*, 19(2), 195–207. <https://doi.org/10.1080/15021149.2018.1438339>
- Poll, K., Widen, J., & Weller, S. (2014). Six instructional best practices for online engagement and retention. *Journal of Online Doctoral Education*, 1(1), 56–72.
- Pollard, J. S., Higbee, T. S., Akers, J. S., & Brodhead, M. T. (2014). An evaluation of interactive computer training to teach instructors to implement discrete trials with children with

autism. *Journal of Applied Behavior Analysis*, 47(4), 765–776.

<https://doi.org/10.1002/jaba.152>

Prignano, J. V. (1985). *Videotaped role induction for supervision: Effects on novice counseling trainees* (Publication No. 303394698) [Doctoral dissertation, Kansas State University].

ProQuest Dissertations & Theses Global.

<https://login.ezproxy.lib.ou.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fvideotaped-role-induction-supervision-effects-on%2Fdocview%2F303394698%2Fse-2%3Faccountid%3D12964>

Pustejovsky, J. E. (2015). Measurement-comparable effect sizes for single-case studies of free-operant behavior. *Psychological Methods*, 20(3), 342–359.

<https://doi.org/10.1037/met0000019>

Pustejovsky, J. E. (2018). Using response ratios for meta-analyzing single-case designs with behavioral outcomes. *Journal of School Psychology*, 68, 99–112.

<https://doi.org/10.1016/j.jsp.2018.02.003>

Pustejovsky, J. E., Chen, M., Grekov, P., & Swan, D. M. (2024). *Single-case effect size calculator (Version 0.7.3)* [Web application]. <https://jepusto.shinyapps.io/SCD-effect-sizes>

Pustejovsky, J. E., & Ferron, J. M. (2017). Research synthesis and meta-analysis of single-case designs. In J. M. Kauffman, D. P. Hallahan, & P. C. Pullen (Eds.), *Handbook of Special Education* (2nd ed., pp. 168–186). Routledge. <https://doi.org/10.4324/9781315517698-15>

Rauf, H. L., Gunce, K., & Ozersay, M. O. (2020). Self-advocacy for first-year students in interior architecture design studios. *Open House International*, 45(4), 465–479.

<https://doi.org/10.1108/OHI-05-2020-0041>

- Reese, R. J., Usher, E. L., Bowman, D. C., Norsworthy, L. A., Halstead, J. L., Rowlands, S. R., & Chisholm, R. R. (2009). Using client feedback in psychotherapy training: An analysis of its influence on supervision and counselor self-efficacy. *Training and Education in Professional Psychology, 3*(3), 157–168. <https://doi.org/10.1037/a0015673>
- Reid, D., Parsons, M. B., & Green, C. W. (2021). *The supervisor's guidebook: Evidence-based strategies for promoting work quality and enjoyment among human service staff*. Charles C Thomas Publisher.
- Richardson, D. (2008). Don't dump the didactic lecture; fix it. *Advances in Physiology Education, 32*(1), 23–24. <https://doi.org/10.1152/advan.00048.2007>
- Riggs, C. (2020). *The relationship between school counselors' self-advocacy skills and the implementation level of comprehensive school counseling programs* (No. D20350255) [Doctoral dissertation, Northeastern University]. Digital Repository Service. <http://hdl.handle.net/2047/D20350255>
- Roane, H. S., Fisher, W. W., & Carr, J. E. (2016). Applied behavior analysis as treatment for autism spectrum disorder. *The Journal of Pediatrics, 175*, 27–32.
- Robinson, S. E. (2011). Teaching paraprofessionals of students with autism to implement pivotal response treatment in inclusive school settings using a brief video feedback training package. *Focus on Autism and Other Developmental Disabilities, 26*(2), 105–118. <https://doi.org/10.1177/1088357611407063>
- Rogers, E. M. (1983). *Diffusion of Innovation (3rd ed.)*. Free Press.
- Rosales, R., Gongola, L., & Homlitas, C. (2015). An evaluation of video modeling with embedded instructions to teach implementation of stimulus preference assessments. *Journal of Applied Behavior Analysis, 48*(1), 209–214. <https://doi.org/10.1002/jaba.174>

- Ruble, L. A., Usher, E. L., & McGrew, J. H. (2011). Preliminary investigation of the sources of self-efficacy among teachers of students with autism. *Focus on Autism and Other Developmental Disabilities*, 26(2), 67–74. <https://doi.org/10.1177/1088357610397345>
- Sarokoff, R. A., & Sturmey, P. (2004). The effects of behavioral skills training on staff implementation of discrete-trial teaching. *Journal of Applied Behavior Analysis*, 37(4), 535–538. <https://doi.org/10.1901/jaba.2004.37-535>
- Schult, D. G. (1994). *Effect of supervisor focus and trainee needs on trainee satisfaction with supervision* (Publication No. 304155291) [Doctoral dissertation, State University of New York at Albany]. ProQuest Dissertations & Theses Global. <https://login.ezproxy.lib.ou.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Feffect-supervisor-focus-trainee-needs-on%2Fdocview%2F304155291%2Fse-2%3Faccountid%3D12964>
- Schwartz, I. S., & Baer, D. M. (1991). Social validity assessments: Is current practice state of the art? *Journal of Applied Behavior Analysis*, 24(2), 189–204. <https://doi.org/10.1901/jaba.1991.24-189>
- Schwartz, K. L. (1996). *The supervisee's perceived degree of support and direction from the supervisor and how it affects the process of supervision* (Publication No. 304267832) [Doctoral dissertation, Temple University]. ProQuest Dissertations & Theses Global. <https://login.ezproxy.lib.ou.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fsupervisees-perceived-degree-support-direction%2Fdocview%2F304267832%2Fse-2%3Faccountid%3D12964>

- Scruggs, T. E., & Mastropieri, M. A. (1998). Summarizing single-subject research: Issues and applications. *Behavior Modification*, 22(3), 221–242.
<https://doi.org/10.1177/01454455980223001>
- Sellers, T. P., Alai-Rosales, S., & MacDonald, R. P. F. (2016a). Taking full responsibility: The ethics of supervision in behavior analytic practice. *Behavior Analysis in Practice*, 9(4), 299–308. <https://doi.org/10.1007/s40617-016-0144-x>
- Sellers, T. P., LeBlanc, L. A., & Valentino, A. L. (2016b). Recommendations for detecting and addressing barriers to successful supervision. *Behavior Analysis in Practice*, 9(4), 309–319. <https://doi.org/10.1007/s40617-016-0142-z>
- Sellers, T. P., Valentino, A. L., & LeBlanc, L. A. (2016c). Recommended practices for individual supervision of aspiring behavior analysts. *Behavior Analysis in Practice*, 9(4), 274–286. <https://doi.org/10.1007/s40617-016-0110-7>
- Sellers, T. P., Valentino, A. L., Landon, T. J., & Aiello, S. (2019). Board Certified Behavior Analysts' supervisory practices of trainees: Survey results and recommendations. *Behavior Analysis in Practice*, 12(3), 536–546. <https://doi.org/10.1007/s40617-019-00367-0>
- Showalter, D., Hartman, S. L., Johnson, J., & Klein, B. (2019). *Why Rural Matters 2018-2019: The time is now. A report of the rural school and community trust.*
<https://files.eric.ed.gov/fulltext/ED604580.pdf>
- Shuler, N., & Carroll, R. A. (2019). Training supervisors to provide performance feedback using video modeling with voiceover instructions. *Behavior Analysis in Practice*, 12(3), 576–591. <https://doi.org/10.1007/s40617-018-00314-5>

- Silberman, M. L., & Biech, E. (2015). *Active training: A handbook of techniques, designs, case examples, and tips*. John Wiley & Sons.
- Simmons, C. A., Ford, K. R., Salvatore, G. L., & Moretti, A. E. (2021). Acceptability and feasibility of virtual behavior analysis supervision. *Behavior Analysis in Practice*, 14(4), 927–943. <https://doi.org/10.1007/s40617-021-00622-3>
- Slanzi, C. M., & Sellers, T. (2023). Paying for supervision: Barriers, solutions, and opportunities. *Behavior Analysis in Practice*, 16(2), 363–373. <https://doi.org/10.1007/s40617-022-00727-3>
- Slocum, T. A., Pinkelman, S. E., Joslyn, P. R., & Nichols, B. (2022). Threats to internal validity in multiple-baseline design variations. *Perspectives on Behavior Science*, 45(3), 619–638. <https://doi.org/10.1007/s40614-022-00326-1>
- Smith, S., Mattson, S., Aguilar, J., Pyle, N., & Higbee, T. (2022). Behavioral skills training with adult interventionists: A systematic review. *Review Journal of Autism and Developmental Disorders*. <https://doi.org/10.1007/s40489-022-00339-1>
- Sobeck, E. E., Robertson, R., & Smith, J. (2020). The effects of didactic instruction and performance feedback on paraeducator implementation of behavior support strategies in inclusive settings. *The Journal of Special Education*, 53(4), 245–255. <https://doi.org/10.1177/0022466919858989>
- Stahmer, A.C., Rieth, S., Lee, E., Reisinger, E.M., Mandell, D.S. and Connell, J.E. (2015). Training teachers to use evidence-based practices for autism: Examining procedural implementation fidelity. *Psychology in the Schools*, 52. 181-195. <https://doi.org/10.1002/pits.21815>

- Stolz, S. B. (1981). Adoption of innovations from applied behavioral research: “Does anybody care?” *Journal of Applied Behavior Analysis*, 14(4), 491–505.
<https://doi.org/10.1901/jaba.1981.14-491>
- Stone, D., & Heen, S. (2015). *Thanks for the Feedback: The Science and Art of Receiving Feedback Well*. Viking.
- Strain, P. S., Barton, E. E., & Dunlap, G. (2012). Lessons learned about the utility of social validity. *Education and Treatment of Children*, 35(2), 183–200.
<https://doi.org/10.1353/etc.2012.0007>
- Trusty, J., & Brown, D. (2005). Advocacy competencies for professional school counselors. *Professional School Counseling*, 8(3), 259–265.
- Tschannen-Moran, M., Hoy, A. W., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68(2), 202–248.
<https://doi.org/10.3102/00346543068002202>
- Turner, L. B., Fischer, A. J., & Luiselli, J. K. (2016). Towards a competency-based, ethical, and socially valid approach to the supervision of applied behavior analytic trainees. *Behavior Analysis in Practice*, 9(4), 287–298. <https://doi.org/10.1007/s40617-016-0121-4>
- Vladescu, J. C., Carroll, R., Paden, A., & Kodak, T. M. (2012). The effects of video modeling with voiceover instruction on accurate implementation of discrete-trial instruction. *Journal of Applied Behavior Analysis*, 45(2), 419–423.
<https://doi.org/10.1901/jaba.2012.45-419>
- Walker, J. D., Johnson, K. M., & Randolph, K. M. (2021). Teacher self-advocacy for the shared responsibility of classroom and behavior management. *TEACHING Exceptional Children*, 53(3), 216–225. <https://doi.org/10.1177/0040059920980481>

- Wang, H., Hall, N. C., & Rahimi, S. (2015). Self-efficacy and causal attributions in teachers: Effects on burnout, job satisfaction, illness, and quitting intentions. *Teaching and Teacher Education*, 47, 120–130. <https://doi.org/10.1016/j.tate.2014.12.005>
- Ward-Horner, J., & Sturmey, P. (2008). The effects of general-case training and behavioral skills training on the generalization of parents' use of discrete-trial teaching, child correct responses, and child maladaptive behavior. *Behavioral Interventions*, 23(4), 271–284. <https://doi.org/10.1002/bin.268>
- Watson, P. J., & Workman, E. A. (1981). The non-concurrent multiple baseline across-individuals design: An extension of the traditional multiple baseline design. *Journal of Behavior Therapy and Experimental Psychiatry*, 12(3), 257–259. [https://doi.org/10.1016/0005-7916\(81\)90055-0](https://doi.org/10.1016/0005-7916(81)90055-0)
- Weldy, C. R., Rapp, J. T., & Capocasa, K. (2014). Training staff to implement brief stimulus preference assessments. *Journal of Applied Behavior Analysis*, 47(1), 214–218. <https://doi.org/10.1002/jaba.98>
- Wilbur, M. P., Roberts-Wilbur, J., Hart, G. M., Morris, J. R., & Betz, R. L. (1994). Structured group supervision (SGS): A pilot study. *Counselor Education and Supervision*, 33(4), 262–279. <https://doi.org/10.1002/j.1556-6978.1994.tb00293.x>
- Winett, R. A., Moore, J. F., & Anderson, E. S. (1991). Extending the concept of social validity: Behavior analysis for disease prevention and health promotion. *Journal of Applied Behavior Analysis*, 24(2), 215–230. <https://doi.org/10.1901/jaba.1991.24-215>
- Wolf, M. M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart1. *Journal of Applied Behavior Analysis*, 11(2), 203–214. <https://doi.org/10.1901/jaba.1978.11-203>

- Wolfe, K., Barton, E. E., & Meadan, H. (2019). Systematic protocols for the visual analysis of single-case research data. *Behavior Analysis in Practice*, 12(2), 491–502.
<https://doi.org/10.1007/s40617-019-00336-7>
- Wong, K. K., Fienup, D. M., Richling, S. M., Keen, A., & Mackay, K. (2022). Systematic review of acquisition mastery criteria and statistical analysis of associations with response maintenance and generalization. *Behavioral Interventions*, 37(4), 993–1012.
<https://doi.org/10.1002/bin.1885>
- Yakich, T. (2020). *Effects of publicly posted and vocal feedback on supervision practices of board certified behavior analysts* (Order No. 27959939) [Doctoral dissertation, The Chicago School of Professional Psychology].
<https://login.ezproxy.lib.ou.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Feffects-publicly-posted-vocal-feedback-on%2Fdocview%2F2430404649%2Fse-2%3Faccountid%3D12964>
- Yu, X., Wang, P., Zhai, X., Dai, H., & Yang, Q. (2015). The effect of work stress on job burnout among teachers: The mediating role of self-efficacy. *Social Indicators Research*, 122(3), 701–708. <https://doi.org/10.1007/s11205-014-0716-5>
- Zee, M., & Koomen, H. M. Y. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being: A synthesis of 40 years of research. *Review of Educational Research*, 86(4).