

BEHAVIOR ANALYSIS & DE-ESCALATION

**Salem State University
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**A Behavior Analytic Approach to De-Escalation: Behavioral Skills Training for
Undergraduate Student Leadership**

A Thesis in Behavior Analysis

by

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BEHAVIOR ANALYSIS & DE-ESCALATION

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BEHAVIOR ANALYSIS & DE-ESCALATION

Abstract

In a higher education setting, undergraduate student leaders can be seen as beneficial support for others affiliated with the campus environment both through verbal and interpersonal interactions with peers. Proposed in this paper is a conceptual model evaluating the interlocking behavioral contingencies (IBCs) through operant and respondent processes. Additionally, this paper evaluates the effectiveness of behavioral skills training (BST) in teaching undergraduate student leaders de-escalation strategies relevant to higher education settings. Three participants engaged in baseline and post-intervention (post-BST) role-play scenarios for six targeted behavioral strategies. Results indicated BST increased or maintained levels of strategy utilization in participants as well as improvement of provision of university resources despite existing knowledge of the intended use of each resource. This suggests that BST is an effective means of teaching behaviors related to de-escalation in the higher education setting and may support broader applications in campus conflict management.

Keywords: behavioral skills training, conflict, de-escalation, student leaders, verbal behavior

A Behavior Analytic Approach to De-Escalation: Behavioral Skills Training for Undergraduate Student Leadership

Student leaders can be a front line of contact for peer interactions and should be equipped with skills for verbally and behaviorally challenging situations should they arise. They may be seen by peers as easier to approach about concerns, resources, and assistance in finding resolutions to problems. Prior to challenging situations arising, behavioral skills surrounding de-escalation should occur. Existing literature identifies the importance of recognizing that conflicts exist even in strong, healthy organizations, and a strong conflict management culture helps with not only employee retention but also recruitment of faculty, staff, and students (Watson et al., 2019). To address conflicts between organization members and students, some universities have offices with individuals meant to offer impartial and informal assistance for grievances (Harrison, 2007). There are a multitude of identified ways to de-escalate a situation, especially through verbal behavior. Verbal interactions between student leaders and students in the higher education setting provide an opportunity for utilization of behavioral de-escalation strategies. For this study, the term *student leader* is defined as any currently enrolled undergraduate student serving in elected or appointed role(s) requiring interactions and direct verbal communications with peers and those affiliated with the campus environment. Additionally, *de-escalation*, as defined by the Department of Homeland Security, includes “The use of communication or other techniques during an encounter to stabilize, slow, or reduce the intensity of a potentially violent situation without using physical force, or with a reduction in force” (Cybersecurity & Infrastructure Security Agency, n.d.).

With the roles they serve in a university setting, student leaders can be exposed to students presenting with challenging behaviors associated with frustration, anxiety, or other complex emotions. Utilizing behavioral skills training (BST) could provide an improvement of

existing methods for teaching verbal and behavioral responses to student leaders who engage with students in situations requiring behavioral de-escalation and accurate university resource provision. There is abundant research on BST, including literature that presents how BST is an effective, evidence-based protocol (Parsons et al., 2012). However, there is a lack of research surrounding the examination of behavioral skills for de-escalation in the undergraduate student population. Other literature examines behavior analytic interventions for students, existing behavior analytic theories on emotion and responding, challenges occurring for faculty, grievances being reported by students, and the impact of student leadership on other groups within the higher education setting. Included is a propositional model examining the ways in which the behavior of these groups may interlock, in terms of operant and respondent behavior, to evaluate the possible impacts on the campus environment when conflict arises. The purpose of this study is to evaluate the effectiveness of BST for training behavioral de-escalation strategies to student leaders. It is hypothesized that the use of a BST procedure with student leaders could be beneficial for improvement of behavioral skills towards de-escalation. The present thesis introduces a conceptual model grounded in interlocking behavioral contingencies (IBCs) to better understand the role of student leadership within a broader university context. Additionally, it will further investigate the effectiveness of a behavior analytic intervention, BST, aimed at enhancing student leaders' de-escalation skills through empirically validated strategies.

Literature Review

Existing Behavior Analytic Interventions

Understanding how behavior analytic interventions can be utilized in higher education along with the interlocking behavioral contingencies (IBCs) between students, student leadership, and faculty, could enhance communication and relationships within the university setting through BST. The literature demonstrates a range of behavior analytic interventions have been applied to improve student success across various courses and modalities (Curiel et al., 2023). Examples include interventions such as SAFMEDS (Say-All-Fast-Minute-Each-Day-Shuffled) for content mastery (Commons et al., 2014), interteaching as an alternative for traditional lectures (Boyce & Hine, 2002), and the personalized system of instruction (PSI), which allows for self-paced mastery of content (Keller, 1968), that have all shown positive effects. More innovations include computer-aided PSI and WebCAPSI, an alternative form of CAPSI, utilizing peer reviewers to aid in minimizing demands on instructors (De Souza & Crone-Todd, 2024). These interventions directly target studying and pedagogical approaches and have shown positive results with increased quiz and exam scores. The implementation of techniques from behavior analysis is a knowledge base that continues to grow given that application and validation of behavioral education methods for college students has been stated to need more investigation (Curiel et al., 2023). Given the available evidence supporting studying and pedagogical methods in higher education and the potential for growth employing the use of behavior analytic interventions for college students, other forms of interventions with alternative uses from the field of behavior analysis may also prove useful.

Concerns surrounding faculty resignations have also been reported with predictors including faculty perceptions of inadequate organizational support, high levels of anxiety, exhaustion, depression, and low job satisfaction (Schmiedehaus et al., 2023). Likewise, student

complaints and issues in higher education have been explored intending to target a variety of conflicts among students and faculty related to religion, free speech, plagiarism claims, and gender-divided classes (Harrison, 2007). In light of the challenges faced by those in higher education, it is valuable to explore how student leadership, faculty, and students interact and the potential for resolving concerns. While examining processes for conflict resolution, Harrison (2007), revealed that “Students overwhelmingly approached friends and classmates as their first step in pursuing a conflict” with men being slightly less likely to pursue a grievance and women being more concerned with retribution regarding their standing in a department if they pursued a grievance (p. 355). Therefore, student leadership, potentially due to social reinforcement and potential similarity in age, may be seen as easier to approach for validation of concerns and assistance in their resolution given that a substantial number of students tend to approach friends and classmates first.

Operant and Respondent Behavior

To evaluate the connections among various different groups in a campus environment, it is first important to define operant and respondent behavior. Operant behavior is “Behavior that is modified by its consequences” (Martin & Pear, 2010). Behaviors can increase or decrease dependent on the consequences of that behavior. In other words, if a student does not have to take an exam as a result of their perfect attendance, the consequence of no exam may be impactful to that student’s attendance in the future. As opposed to seemingly voluntary operant behavior, respondent behavior is reflexive, or elicited (Cooper et al., 2020). Operant conditioning and respondent conditioning, processes involving operant and respondent behavior, can be evaluated in the context of a higher education setting.

Operant Conditioning

Operant conditioning involves behaviors being either strengthened through reinforcement or weakened through punishment (Martin & Pear, 2010). An example of this may include a student getting awarded bonus grade points for participating and correctly answering questions in a discussion. Another example might include a student providing a late submission of a class project in which the professor opts to deduct points from the project. Each of these examples can be broken down using the three-term contingency.

To discuss the interlocking behavioral contingencies (IBCs) that exist between different roles in a university setting, the three-term contingency must first be discussed. The three-term contingency includes: An (a) antecedent which refers to conditions that occur prior to a behavior, (b) behavior which is the way in which a living organism interacts with its environment, and (c) a consequence which is a stimulus change that occurs within that organism's environment (Cooper et al., 2020). Consider table 1, for example, featuring a professor and student. The antecedent is the professor asking a question, the behavior includes a verbal response from the student, and the consequence of the student's behavior is that the professor verbally praises the student.

These contingencies do not occur in isolation but are instead part of larger interactions. Within the behavior analytic approach, a *contingency* indicates a behavior occurring because it is dependent on the consequence that the behavior receives (Cooper et al., 2020). When two or more individuals interact, similar to the given example between a student and professor, their behavior, antecedents, and consequences in the interaction form a larger picture referred to as Interlocking Behavioral Contingencies (Glenn, 2004). This means that, when a behavior occurs and a consequence follows that behavior, a contingency may form due to the dependency of the pairing between the behavior and the consequence that happens after the behavior. Note that

positive reinforcement involves behavior immediately followed by a positive reinforcer to increase the likelihood of behavior recurring while negative reinforcement removes an aversive stimulus for the same effect (Martin & Pear, 2010). Positive punishment adds an aversive stimulus to decrease a behavior, whereas negative punishment removes a desirable stimulus to reduce a behavior (Cooper et al., 2020). Consider table 2 regarding the bonus points and deducted points examples. The student being awarded points for participating is a clear example of positive reinforcement given that this increases the likelihood the student will continue participating in future discussions. The removal of points, or the desired reinforcer, is negative punishment as it serves the intention to decrease the likelihood of future late submissions. It is important to recognize the behavior of the student also provides antecedents and consequences for the professor's behavior. The bidirectional relationship demonstrates an interlocking behavioral contingency with the professor's behavior being an antecedent to the student's response, the student's behavior serving as an antecedent for the professor's behavior, and the student's behavior serving as a consequence for the professor's teaching behavior.

Respondent Conditioning

Respondent conditioning, also known as classical or Pavlovian conditioning, involves pairing a neutral stimulus with an unconditioned stimulus to influence future associations or responses (Cooper et al., 2020). Martin and Pear (2010) identify an unconditioned reflex as a stimulus-response relationship involving an unconditioned stimulus (e.g. receiving unexpected negative feedback) automatically eliciting an unconditioned response (e.g. increased heart rate, sweating, flushing, pounding heart, nausea). Respondent conditioning can be evaluated in an example between a student and professor.

Allow us to continue with our example between the student and the professor. This time, the student does not answer the question correctly. If the professor were to correct the student's answer, responses commonly verbally referred to as anxiety (i.e. increased heart rate, sweating) may occur for the student. These physiological responses would be examples of unconditioned responses which are elicited by the potentially aversive experience of being corrected (unconditioned stimulus). Over time, the stimulus of the professor's voice (originally neutral) may become associated with this unconditioned reflex. Hearing the professor's voice on any occasion, such as in the hall or during lectures, may lead to "anxious feelings" even when the professor is not directly speaking to the student or delivering feedback. In other words, the professor's voice is now a conditioned stimulus eliciting a conditioned response to something that otherwise would have been neutral. Given the new association, the student's behavioral responses to antecedents related to the professor may change. The student may now not raise their hand to answer as many questions in class.

Emotion and Verbal Behavior

From a behavioral perspective, Skinner (1945) identified that the focus should be on contingencies that play an active role in emotional talk as opposed to the talk of emotions themselves. While other practices may apply a feeling as the reasoning for actions in day-to-day experiences, something such as feeling anxious cannot be directly manipulated as a controlling variable and cannot be a complete explanation in behavior analysis (Friman et al., 1998). Returning to the three-term contingency, stating feeling anxious can, however, be a means of verbalizing experiencing a reflexive response (i.e. increase in heart rate, work of breathing) affiliated with an emotion (i.e. high heart rate conditioned with the word anxiety) due to a potential antecedent (i.e. loud noise). Operant behavior may include an individual choosing to

verbally name how they feel given that the consequences of their verbal behavior could be beneficial in doing so (e.g. states stomach pain and receives medication). This highlights the functional role of verbal behavior as part of the contingency influencing future behavior and responding. Verbal expressions of emotions such as anxiety or fear may play a role in the behaviors chosen by individuals to navigate conflict or avoid escalation of a given situation.

De-escalation can also occur in digital communication (Van Mulken, 2024), however communicating ideas aloud is important for in-person strategies. Given the nature of complaints and conflict, verbal behavior related to emotions such as anxiety, anger, or fear are words that may be used by others to describe why some may pursue an action such as avoidance. For example, some may believe that it would be acceptable to state that a student did not attend class because they were feeling anxious. From a behavior analytic approach, it might be explained that the student did not attend class not due to the anxiety, but due to an in-class group assignment that would be occurring. The student may state that they were feeling ill to the professor and, for example, perhaps the professor provides the student with an extra credit assignment they can do on their own to assist their grade instead. This may reinforce the verbal behavior of stating feeling ill to avoid group work and can shape the future responding from the student. In other words, the antecedent could be verbalizing that the group assignment will be occurring that day, which may be aversive, and the behavior of the student might include avoiding the class. The consequence of avoiding the class might be not having to be a part of group work. From a behavior analytic standpoint considering verbal behavior, contingencies, IBCs, and the reporting of a feeling as cause, consequences of the behaviors of all involved should be considered. Verbal behavior has an impact into many different situations including those where behaviors one might associate with emotion may occur.

Interlocking Behavioral Contingencies

While students and student leaders, faculty, and staff play different roles, they are all integral to campus life. Student leaders have been identified as having the capacity to make a positive impact for campus environments in different ways. College students with early involvement in leadership activities arguably establish credibility that aids in trust and confidence in their capabilities (Hilliard, 2010). These leadership activities expose students to various campus groups which, as previously identified with IBCs, mean their behaviors are impactful to the greater whole. One individual's actions act as potential discriminative stimuli and consequences for another's actions. Research supports that students tend to approach other students first when considering launching of a grievance, which promotes consideration of student leadership as a successful means of connecting with other students. According to Hilliard (2010), students with strong leadership skills learn to delegate authority, and "Model the behavior they expect of others" (p. 96) while adding to the academic, social, and cultural growth of a university in many ways including improving community relations, helping peers solve problems, being an agent of positive change, helping change power dynamics, creating forums to speak on their own on different issues, gaining the ability to problem solve at a broader level, deal with uncertainties, and improving their conflict resolution skills. These student contributions to the university environment evidently present some students as being in a dual role of both peer and leader.

Student leadership proposes an intermediate step of contact between challenging situations with peers during verbal and interpersonal interactions. Student leaders who, through pursuit of leadership activities, may hold roles in student networks including clubs, peers, student employment, and other areas of student life, need to be able to carry the means to disseminate

resources to students who may approach them. While the benefits of student leadership abilities are discussed, the means by which these skills develop are important to examine as well.

Providing professional development opportunities for leadership, including faculty, staff, students, and administrators, related to strategic conflict engagement is necessary for the growth of an organization (Watson et al., 2019). Further, improving support for faculty within higher education institutions is recommended to aid with the increase in resignation concerns (Schmiedehaus et al., 2023). Organizational leaders include students who, with their skills honed, can support an organization as a whole through modeling effective conflict management (Watson et al., 2019).

Conceptual Model of Student Leader and Student Interaction

Considering verbal behavior, the three-term contingency, operant and respondent conditioning, and IBCs, now examine how a scenario with a student may explain something such as escape or avoidance of attending class. In table two, a student giving a presentation in class and the interactions from the professor and students in the class are considered. While the given scenario may be a bit intense, it aids in identifying how responses from individuals within an environment may be impactful to further responding from a student in a higher education setting. In the scenario, the antecedent includes the notification that students will be presenting in class that day. The behavior of the student involves the verbal statement of feeling anxious which, for this student, includes a physiological response of increased heart rate and sweating. The consequence of the physiological impact may be difficulty in speaking and presenting to the class. In connection with IBCs, the presentation may serve as an antecedent for the professor who states an issue with the presentation (behavior). In an extreme circumstance, in this scenario the behavior of the professor may serve as an antecedent for the other participants in the class to

laugh. For the student who was presenting, these events may be even more provoking to autonomic arousal (“anxiety”) and lead to the student exhibiting avoidance or escape behavior for future presentation dates.

The conceptualization of IBCs coupled with operant and respondent conditioning can aid in understanding more complex situations regarding students and others within a campus environment. Systematic frameworks have been utilized for similar evaluations of operant and respondent conditioning including explaining how conditioned reactions could escalate police-civilian interactions with reinforcement and punishment of behaviors (Jean & Crone-Todd, 2023) and even understanding the Salem Witch Trials through IBCs (Crone-Todd, 2024). Given the duality of student and leader in the role of student leadership, it is understandable how this role may be representative of different functions in a campus environment. A student leader still attends the university and is present in courses taught by faculty, however they may also hold positions outside of being a student in a classroom. Therefore, given the interactions between students, faculty, and student leaders, their behaviors can coincide or conflict in a university setting and impact other individuals, systems, and campus environments. Given the previous details discussing the impact of interactions among students, faculty, and student leadership and existing concerns illustrated by students and faculty, it is beneficial to consider how student leadership can be improved as a midpoint between students and faculty. Professional development through BST, specifically for rapport building skills, has been determined to be effective for staff members in a public school setting (Lepley, 2024) and may also be considered for a higher education setting.

Considering the potential scenario given in Figure 1, a student may approach a student leader and inform them that they do not want to attend a course due to what occurs when they

present. A student leader may utilize skills to provide the student with options such as strategies to improve their presentation or resources on campus. This behavior of student leaders, when interacting with other students, can be impactful to shift the interlocking behavioral contingencies (IBCs) involved in a positive way in the university setting involved in this scenario. Therefore, evaluation of how to further support student leaders in their role would be beneficial.

Organizational Behavior Management (OBM)

Wilder et al. (2009) describes organizational behavior management (OBM) as a subdiscipline of applied behavior analysis (ABA) that aims to produce socially significant changes in areas such as industries, governments, businesses, and human service settings using behavioral principles with specialty areas such as performance management, systems analysis, and behavior-based safety. Performance management is mainly concerned with changes in worker behavior for better results in an organization, systems analysis looks at analyzing and modifying interdependent tasks to benefit an organization, and behavior-based safety includes analysis and modification of employee behavior to support safe performance and injury reduction (Wilder et al., 2009). OBM relates to universities given that universities also can aim to improve their organization. This can include improving management of tasks, safety of the environment, and evaluation of the overall performance of all its parts. An example of how OBM exists in the realm of improving performance of human service staff can be seen with the use of a methodology known as Behavioral Skills Training (BST).

Behavioral Skills Training (BST)

Parsons, Rollyson, and Reid (2012), present an evidence-based BST protocol with training steps and trainer actions for the purpose of describing an approach for training

performance skills to service staff. Their protocol identifies the following six steps: Describe the target skill, provide a written description of the target skill, demonstrate the target skill, require the trainee to practice the target skill, provide feedback during practice of the skill, and repeat trainee practice and feedback until mastery of the skill. De Souza and Crone-Todd (2024), identify BST as a behavior analytic strategy that has been successfully utilized for the acquisition of higher order skills and verbal behavior in higher education for both undergraduate and graduate students (pp. 215-225). This means that there is evidence to suggest BST may be a viable strategy to teach other behaviors for undergraduate students that have yet to be examined.

Feedback is defined by Oakes et al. (2018) as the use of specific language to complete the goals both confirming and fine-tuning understanding while also clarifying any misunderstandings that may involve hesitating or incorrect practice. Feedback is one of the most common interventions utilized in OBM, a means of delivering information about performance (Wilder et al., 2009) and is critical to the training process in BST as a component for each trainee (Parsons et al., 2012). Common forms of feedback include constructive, focusing on behaviors that need improvement, and positive feedback which involves identifying what the trainee did correctly (De Souza & Crone-Todd, 2024). While providing feedback to each trainee may take additional time, unfamiliarity with BST may mean use of less effective training that ultimately requires a greater time investment to correct (Parsons et al., 2012). Taking into account the beneficial use of BST already existent in higher education, empirical literature utilizing behavioral skills training for student leadership behaviors related to de-escalation still appears to be lacking.

PBIS Model, Escalation and De-Escalation

Teaching undergraduate students through simulation for encounters requiring de-escalation with individuals receiving ongoing mental health care results in participants identifying more confidence in believing that they could de-escalate a situation (Downs et al., 2023). However, there appears to be a lack of literature utilizing behavior analytic methods for the purposes of teaching de-escalation strategies in higher education. As mentioned previously, different types of behavior analytic interventions have been utilized in higher education. An example of an applied behavior analysis intervention, school-wide positive behavioral interventions and supports (PBIS) has been implemented in over 21,000 schools in the USA (Horner & Sugai, 2015). This framework includes an outline of phases of de-escalation including prevention, escalation, crisis, recovery and restoration (Strickland-Cohen et al., 2022). PBIS has been found to meet the features used to define behavior analysis known as applied, behavioral, analytic, conceptual, technological, effective, and generality (Baer et al., 1968; Horner & Sugai, 2015).

As part of the PBIS school framework for de-escalation, the escalation phase is identified as when challenging behaviors increase in intensity, persist, or disrupt the learning environment; and agitation is identified as a slightly elevated intensity of a behavior seen as challenging (Strickland-Cohen et al., 2022). Given what is known regarding respondent behavior, a student presenting with increasingly louder vocalizations may elicit a reflexive response from a student leader (i.e. high heart rate) that could be impactful to the student leader's responses. On the other hand, from an operant responding perspective, strategically targeting behavioral skills for de-escalation and providing feedback could be positively impactful to future responding and improve interactions between students and student leaders. Thus, using BST to teach de-escalation skills could impact IBCs between students, student leaders and others within the

university environment and lead to experiencing improved interactions. Examples of de-escalation include behaviors such as keeping hands down and visible, slow deliberate movements, keeping a relaxed but alert stance, and neutral facial expressions (Cybersecurity & Infrastructure Security Agency, n.d.). However, verbal behaviors are also included in the PBIS framework for use in de-escalation.

The framework includes examples of verbal behaviors such as choice, which is defined stating “Provide the student with a small number (2-3) acceptable options for completing the task,” redirection which includes “Provide a brief statement that prompts engagement in a more appropriate task or behavior” and co-regulation which includes expressing empathy, acknowledging emotions, and modeling behavior by doing the behavior together (Strickland-Cohen et al.). Strategies from the PBIS model for verbal de-escalation were evaluated for targeted behavioral skills to be used within this research study. Given the application of other interventions from the field of behavior analysis in college classrooms, BST could provide an improvement of existing methods of teaching verbal and behavioral responses for de-escalation. Verbal behavior skills such as choice, redirection, and coregulation were adjusted for the purposes of use in a university setting within a BST intervention. BST could assist with existing needs in the university surrounding accurate resource provision to students when de-escalating a situation as well as improve undergraduate student leader’s de-escalation skills.

The current research aimed to evaluate the following questions:

- A. To what extent do student leaders utilize existing de-escalation strategies prior to BST?
- B. Does BST result in a higher percentage of correctly performed de-escalation strategies when compared with baseline levels?

- C. Can student leaders correctly recommend available university resources in a scenario with a role-played escalating student before and after BST?

Method

Participants

Currently enrolled undergraduate student leaders at Salem State University were recruited via email to Residence Life, Navigation Center, First Year Experience, Writing Center, Math Learning Center, Center for Academic Excellence, Center for Civic Engagement, Tutoring Services, and the Frederick E. Berry Library. Searches of these sources suggested that these offices either hire undergraduate student employees, interact with undergraduate student leaders regularly, or seek assistance from students with leadership skills.

The emails requested that interested student leaders follow a link to an online form that verified that they met requirements to participate including being at or above the age of 18, a currently enrolled undergraduate student, availability, and self-identifying as participating in elected or appointed role(s) that require interactions and direct verbal communications with peers and others affiliated with the campus environment. Four students filled out the survey and three met the necessary criteria and availability to participate in the study. The participants, two female seniors and one male junior undergraduate, maintain peer mentor roles as employees of a university office at Salem State University. Participants were contacted via email regarding their first scheduled session time and location to begin consent and baseline procedures.

Setting and Materials

Sessions took place on the university campus in an available room with no additional students, faculty, or staff aside from the participant, researcher, and an in-vivo scorer seated in the back of the room. A graduate student in-vivo observer was trained for the purpose of inter-

observer agreement (IOA). A paper consent form was given to each participant and a session set up checklist (Appendix A) was used to avoid omission of room elements. The scenario setup included a table where the participant was seated facing the entrance to the room. Another chair was placed on the opposing side of the table facing the participant. A camcorder was placed in the back of the room in front of the in-vivo scorer and calibrated to have visibility of the participant and researcher for the scenario measures. Other materials included a scoring sheet for the in-vivo scorer for baseline and post-BST measures (Appendix B) and for scoring recordings, a role-play checklist (Appendix C), Behavioral Skills Training (BST) checklist (Appendix D), and a social validity checklist (Appendix E). One BST protocol training sheet (Appendix F) per skill was used, as well as pre-recorded audio-visual slideshows for skills training.

An online survey (Appendix G) was administered after baseline roleplay scenarios which included social validity questions. University resources, such as supportive offices (e.g. writing center, tutoring services), were also tested in this online survey to evaluate participants' preexisting knowledge of university resources. This was done after baseline measures as a variable control to avoid suggestion of university resource provision as a strategy to utilize during scenarios. A post-BST social validity survey (Appendix H) was also administered after concluding measures in the last session. Three scripted scenarios (Appendix I, K, M) were provided for baseline measures to limit variations from the roleplay actor during baseline and post-BST measurements. These scripts were read as three separate measures for the baseline and post-BST scenarios and described behavioral actions as well as verbal phrasing to begin each scenario. Two pieces of blank paper were used (8.5x11 inches), intended to simulate student essays, and the audio/video recording camcorder contained an SD card for later scoring. Finally,

scoring examples were provided for the choice, redirection, and coregulation strategies (Appendix J, L, N).

Experimental Design and Variables

A quasi-experimental delayed multiple baseline design across participants was used to evaluate the effectiveness of Behavioral Skills Training (BST) in teaching de-escalation target skills. This design was selected to analyze results comparatively to other participants. The dependent variable (y) was the percentage of skills that the participant correctly performed, whereas the independent variable was the behavioral skills training which includes two levels: baseline and post training. Skills measured included initial behaviors: initiates verbal greeting and refraining from verbal interruption and behavioral response strategies: verbally directs to one or more university resources, choice strategy, redirection strategy, and the coregulation strategy. Definitions surrounding choice, redirection, and coregulation are based on PBIS examples of strategies for agitation (Strickland-Cohen et al., 2022) and provided scoring examples altered for the higher education setting as opposed to primary and secondary education were provided.

Data Analysis and Fidelity

Baseline scenario trials and post-BST scenario trials were scored with the same scoring sheet format post-session by reviewing the recordings of participants. The baseline and post-BST measures were examined for the number of correct skills the participant responded with and were made into percentages (6 total skills per trial available) to represent in graphs. The social validity survey data was scored on a Likert scale of 1-5 (strongly disagree, disagree, neutral, agree, strongly agree) and the answers from each survey were added for a sum and presented on graphs to represent participants scores.

Fidelity was upheld by consistently utilizing the skill sheets and outlined check sheets throughout the Behavioral Skills Training (BST). Additionally, participants were trained utilizing pre-recorded videos for the choice, redirection, and coregulation strategies. Participants went through each phase of the BST for each of the skills including instruction, modeling, rehearsal, and feedback and the next skill was not presented for each participant until the previous skill was reached to criterion.

Procedure

The first session, baseline, was 30 minutes long and consisted of consent procedures, recording three baseline scenario roleplays with in-vivo scoring, and completion of an online pre-survey for social validity with an embedded resources quiz. The resources quiz was administered after baseline scenarios to evaluate the participant's preexisting knowledge of university resources while also not preemptively suggesting correct actions in the baseline scenarios.

Following informed consent procedures, participants were informed that they were going to participate in three roleplay scenarios intended to represent a scenario they may see when working with students in one of their leadership roles. Participants were informed that the scenario would begin with them seated behind the desk with the researcher acting as the student in the roleplay. Participants were requested to respond how they believe they would in their typical role as a student leader in the given situation, and to treat the scenario as though this is a student that they have not worked with before. Upon preparing to start each scenario script, the researcher informed the professor that they would leave the room and, upon entrance back into the room, the scenario would begin. Participants were verbally reminded of these instructions before starting each scenario in both the baseline and post-BST sessions. Before beginning each

scenario, the camcorder was turned on to begin recording, the researcher requested verbal verification from the participant that they were ready to begin each scenario (e.g., “Are you ready for scenario 1?”) and then the researcher would leave the room closing the door. Upon the researcher’s opening of the door and reentrance into the room, the in-vivo scorer would begin a timer for five minutes and after closing the door, the researcher would begin reading the quoted sections of the script out loud and act accordingly with the italicized portions to present with the behaviors incorporated into each script (e.g. pacing, seated with foot tapping, standing in front of the participant with raised voice placing blank papers in front of them). Once the timer rang, the scenario was complete, the camera was turned off, and participants were offered a five-minute break. Then, the procedure for the second scenario would begin. Once all the three scenarios were recorded, participants scanned a QR code to complete their pre-survey for social validity and resources quiz aligning with outlined scenario concerns (i.e., assistance with exam prep and tutoring services, paper writing and the writing center). Quotations used in the survey identifying resources utilized wording from the corresponding resources’ pages on the university website. Participant personal data and audio-visual recordings remained locked away and only accessible to researchers for viewing and scoring content. Participants meeting inclusionary criteria were deidentified with a letter designation (e.g. A, B, C) for presentation of data. If a participant had scored one hundred percent on all of the skills, they would have been thanked and excluded from the rest of the study and would not have continued on to the BST component.

To begin the one-hour session, participants were informed of which skills they performed well on during baseline and then which skills were targeted for improvement. Participants were also informed on how they performed on the resources knowledge evaluation. Each skill was divided into a separate skill sheet for the purposes of the Behavioral Skills Training (BST)

procedure. The four sections of each skill sheet and skill training procedure included instruction, modeling, rehearsal, and feedback. Participants were expected to reach 100% mastery criterion on each skill before being able to move on to the next skill to verify that the participant displays that they can complete each skill to mastery prior to participating in post BST trial scenarios. Rehearsal and feedback were repeated until participant performed skill to 100% mastery criterion if they did not achieve criterion for the first rehearsal of the skill. Then, the steps will be repeated, starting again at instruction, for the next skill until all six skills were trained to criterion.

In the **instruction** phase for each skill, the rationale was provided, and the target skill was defined. A written description of the target behaviors encompassing the skill was included for the participant. For the **modeling** phase for each skill, target skills were demonstrated by the researcher utilizing the participant for roleplay of the skill modeling. Instructions for each skill were presented as a written description on the corresponding skill sheet for the participant during the roleplay. During **rehearsal**, the participant practiced each target skill. Finally, **feedback** included general verbal praise and introduction to the next skill if the participant met criterion. If the participant did not meet criterion, corrective feedback was provided, the skill was modeled, practiced, and roleplayed again until the participant reached mastery criterion. The behaviors a) verbal greeting, b) refraining from verbal interruption, and c) provision of resources were trained through the utilization of the skill sheets. The verbal behaviors of choice, redirection, and coregulation included pre-recorded audio PowerPoints that verbalized rationale, definition of the target skill, examples of the target skill being utilized, introduction to the instructions for the modeling phase, and introduction to the instructions to the rehearsal phase. The way in which the modeling and rehearsal phases were conducted for these skills still included the researcher

demonstrating the skill (modeling) and the participant being required to practice the skill (rehearsal). Upon completion of the BST session, participants were thanked for their time.

For the final 30-minute session, participants again engaged in role-playing scenarios intended to simulate potential real-world interactions that they may have with a student. Scoring sheets and the same three scenarios that were utilized for baseline were once again used for post-BST sessions in the same order. The scenarios were utilized to provide opportunities for the participants to apply the skills learned during the BST sessions and to evaluate changes in percentage of skills used compared to baseline measures. Participants were once again refreshed on the procedure, asked to treat the researcher as though this is a student that they have not worked with before, and to act as they would in their leadership role. At the end of their last session, after post-BST scenario measures were conducted, participants were thanked for their participation and concluded the study by being asked to complete an online social validity post-BST survey.

Results

Performance

Findings revealed that BST either increased the amount of behavioral de-escalation strategies utilized by participants, or use of strategies at least remained high, compared to baseline measurements. Figure 2 shows the percentage of skill demonstration for all three participants in baseline and post-BST. Figure 3 identifies the number of recorded occurrences of each de-escalation skill for all three participants in baseline and post-BST trials as identified from video recordings whereas Figure 4 identifies these occurrences scored in vivo. Participant A improved from utilizing 83.33% of skills for the first baseline trial to 100% of skills in the same scripted scenario post-BST. Participant A remained consistent in the second trial (66.67%) and third trial

(100%) from baseline to post-BST measures. In baseline, participant A interrupted the researcher, roleplaying as the escalated student, and failed to consistently utilize the coregulation skill. In post-BST measures, participant A did not interrupt any of the sessions, but also did not improve their utilization of the coregulation strategy. This participant did, however, correctly verbalize more university resources as outlined in the resource direction skill (See Figure 3 and 4).

Participant B significantly improved from all three baseline scenarios (50%, 16.67%, and 50%) to utilizing all six skills in all three of the post-BST sessions (100%) per in vivo scoring. In baseline, participant B failed to verbally greet the researcher during all three roleplay scenario measures and failed to consistently utilize the following skills: resource direction, choice, redirection, and coregulation. In post-BST scenarios, participant B did use the skills that were missed during baseline. Participant C maintained their first baseline measure (100%) in the post-BST measure and improved the second baseline measure from 33.33% skill utilization to 83.33%. The participant's last measure did drop from baseline 16.67%. For baseline measures, participant C did not use the redirection and coregulation skills for all measures. In post-BST, this participant more frequently utilized redirection and coregulation. In contrast, they also failed to refrain from interruption during roleplay unlike their performance in baseline measures. However, the participant did state apologies immediately after interruptions which suggests that the participant was aware of the behavioral strategy post-BST.

The post-baseline university resource provision quiz determined all three participants as having a baseline knowledge of available university resources and their defined roles as they each received a score of 100 percent (no errors in selection). However, despite this knowledge of resources, less university resources were recommended in baseline measures than in post-BST measures. This could indicate a strong benefit to utilizing BST for increasing the use of this

specific skill set. Prior to BST, student leaders were identified as utilizing multiple strategies, predominately redirection (see Figures 4 and 5). The utilization of majority, if not all, skills became evident in post-BST session scoring by participants. The amount of correctly utilized skills scored shows variation between the in vivo and scoring of recordings.

Social Validity

After the completion of the three roleplay scenarios, participants were thanked for their time, informed that honest feedback is very important for the study, and were requested to scan a QR code to fill out the online post-BST social validity survey on SurveyMonkey. The researcher did not examine responses to the social validity statements on the surveys until after all the participants' final responses were submitted. Both surveys used a 5-point Likert type scale for social validity statements (1 being strongly disagree, 5 being strongly agree).

The pre-BST social validity survey (see Figure 5) included five assessment questions evaluated by how participants rated each statement on the scale. Questions one and five ("I know specific strategies to support students when I believe they may be upset" and "I feel confident communicating with other students in my role, even when I believe they may be upset") were notable in that all three participants indicated "Agree" for the pre-BST survey. In the post-BST survey, the same two statements had some higher scores. Statement one received two "Strongly Agree" and one "Agree" whereas statement five received one "Strongly Agree" and two "Agree". Question two on the pre-BST and post-BST survey ("I understand what de-escalation is and how it applies to my role") remained the same for ratings on both surveys. One participant indicated "Strongly Agree" and two participants indicated "Agree". Interestingly, one participant indicated pre-BST that they "Agree" to having participated in training sessions that included role-playing scenarios and having previously received formal training in de-escalation strategies

before. Participants' responses in the social validity surveys (Figures 5 and 6) identified a positive outlook regarding the training with scores predominantly including "Agree" and "Strongly Agree". No ratings in the post-BST survey resided in the "Disagree" or "Strongly Disagree" categories. To facilitate clarity, the data were averaged for graphing purposes on Figures 5 and 6.

Discussion

This study demonstrates that behavioral skills training (BST) was found to be an effective intervention for teaching de-escalation strategies to participants involved, especially for skills not already in the participant's repertoire. The structured approach of BST (instruction, modeling, rehearsal, and feedback) allowed participants to acquire and demonstrate de-escalation strategies more consistently in role-play scenarios intended to mimic real-world student conflicts. The ability of participants to recommend university resources relevant to role-plays suggests that BST could help support practical application and transfer this knowledge to spontaneous, real-life interactions with peers. All three participants selected all of the correct resources on the pre-assessment resource quiz verifying pre-existing knowledge of university resource roles. However, more resources affiliated with the university were consistently utilized in the post-BST sessions. Improvements of use of behavioral strategies from baseline to post-BST measures demonstrate benefits of using BST. Although participants demonstrated accuracy in their knowledge of university resources before BST, they incorporated more of these resources following training. This indicates enhanced fluency in applying this contextually.

The amount of correctly utilized skills scored shows variation between the in vivo and scoring of recordings. This may signify scoring in vivo may be difficult in comparison to reviewing the video products for this type of study. This could mean that continued research

would benefit on more reliance on video analysis given it is a product that can be viewed multiple times. Social validity data shows participant satisfaction which also highlights the relevance of BST as an intervention as well as acceptability in higher education settings. Further, this supports BST as a socially valid, behavior analytic intervention useful within this context.

Student leaders are often the front line of peer interactions. As noted in existing literature, a strong conflict management culture and actions that support being equipped for handling challenging situations can be beneficial to retention and recruitment of students, faculty, and staff (Watson et al., 2019). University roles present the opportunity for student leaders to utilize de-escalation strategies in real-world situations which means training is critical to success. Given the importance of conflict resolution in higher education, the results of this study support that BST could be an effective method for preparing student leaders to handle challenging situations more effectively and contribute to a more positive environment.

Limitations and Future Research

This study had several limitations that should be addressed in future research including the use of only one camera for capturing angles and perspectives, time constraints for conducting training for the in-vivo scorer which could have affected reliability of behavior coding, and limited time permitted for the approved overall duration of study thereby reducing amount and stability of baseline data collected. These constraints may be impactful to the strength of conclusions drawn regarding behavior change in this study. Given the specificity, there was a lack of prior research on the topic which necessitates further development in the area of study to improve techniques. Another limitation was the researcher participating as the actor for scenarios with the participants. While scripts were utilized to ensure consistency across sessions, it may

have introduced unintentional alteration in participant responses due to familiarity or power dynamics.

Future research may like to consider a component analysis to determine which components of BST (instruction, modeling, rehearsal, and feedback) are most critical for teaching de-escalation related behaviors. This could also benefit future interventions by reducing the duration which could focus more attention on improving the efficacy of baseline and intervention phases. Due to time constraints, the current study did not include a second scorer evaluating recordings for interobserver agreement. Subsequent studies may consider incorporating a second scorer for interobserver reliability and to strengthen the validity of the findings. Future work should also expand on exploring the interlocking behavioral contingencies (IBCs) within trained behaviors. This could offer valuable insight on how de-escalation behaviors interlock with responses from others. Some of this may include verbal content, tone, and magnitude of speech. Receiving of verbal and nonverbal responses between participants and peers may also function as IBC's which could support or hinder successful de-escalation. Understanding the influence of BST on these contingencies can help to better train individuals in the higher education setting to enhance real-world applications of trained skills.

Conclusion

In summary, utilizing BST can be an effective means to improve behavioral de-escalation skills to undergraduate student leaders who serve roles in a higher education setting. This study shows that it may be beneficial to evaluate student leaders acting in various capacities at a university level for pre-existing utilization of skills and knowledge of resources. Further evaluation of de-escalation skills could prove useful to strengthen these skills and support fostering a university community prepared to respond to various situations and conflicts.

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Table 1

This Table Depicts a Three-Term Contingency Example

Antecedent	Behavior	Consequence
Professor asks a question and looks towards student	Student verbally responds with the correct answer to the question	Professor provides praise to the student for answering correctly

Table 2

This Table Depicts Operant Concepts to Further Exemplify Scenario Examples

Scenario Example	Operant Concept	Reasoning
Student receives bonus points for correct answers	Positive Reinforcement	Points added = increased future participation
Points deducted for late submission	Negative Punishment	Desirable points removed = decreased late submissions

Figure 1

Illustration of Scenario Involving a Student Presenting Verbal Behavior with Conditioned Reflexes

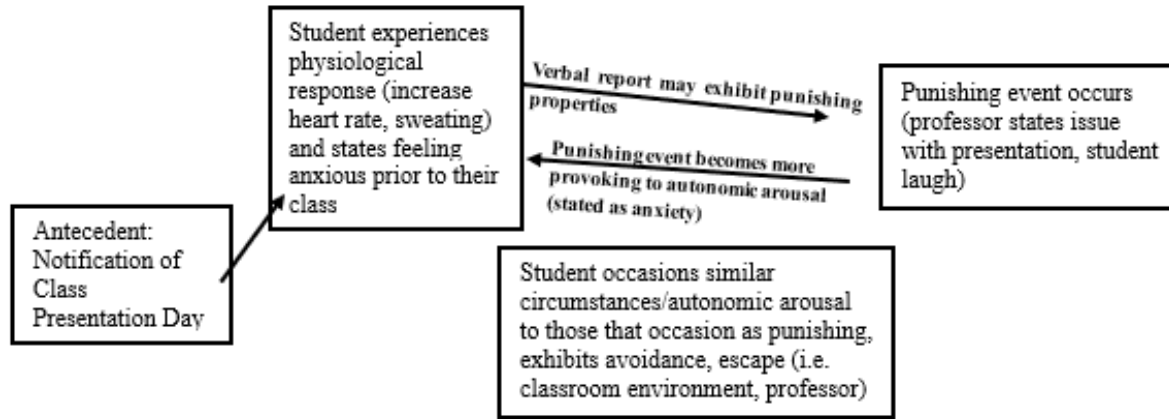


Figure 2

Percentage of De-Escalation Skills Used Per Participant Scored In Vivo

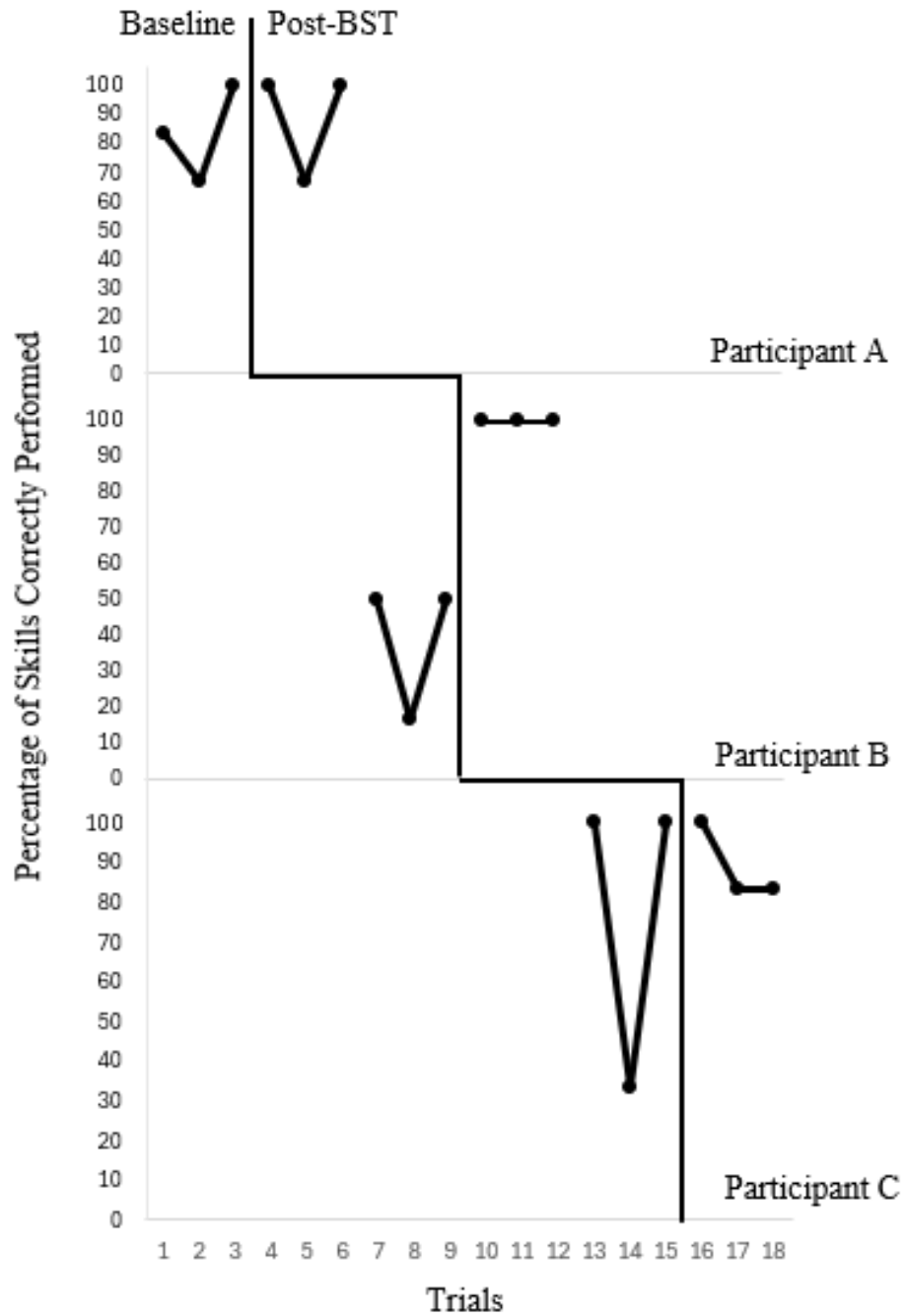


Figure 3

Recorded Occurrences of De-Escalation Skills Per Participant Scored from Recordings

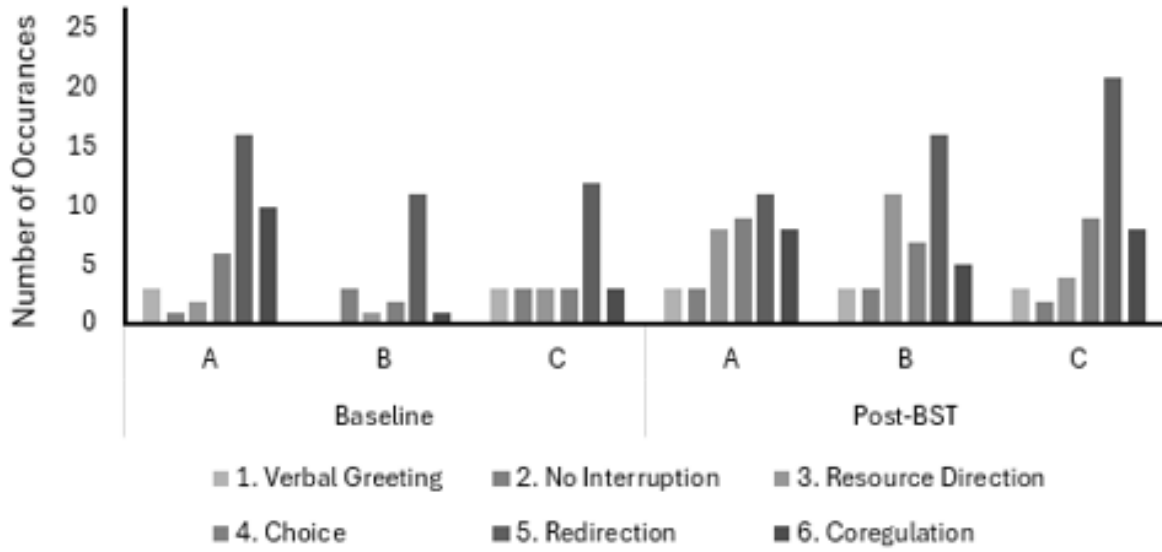


Figure 4

Recorded Occurrences of De-Escalation Skills Per Participant Scored In Vivo

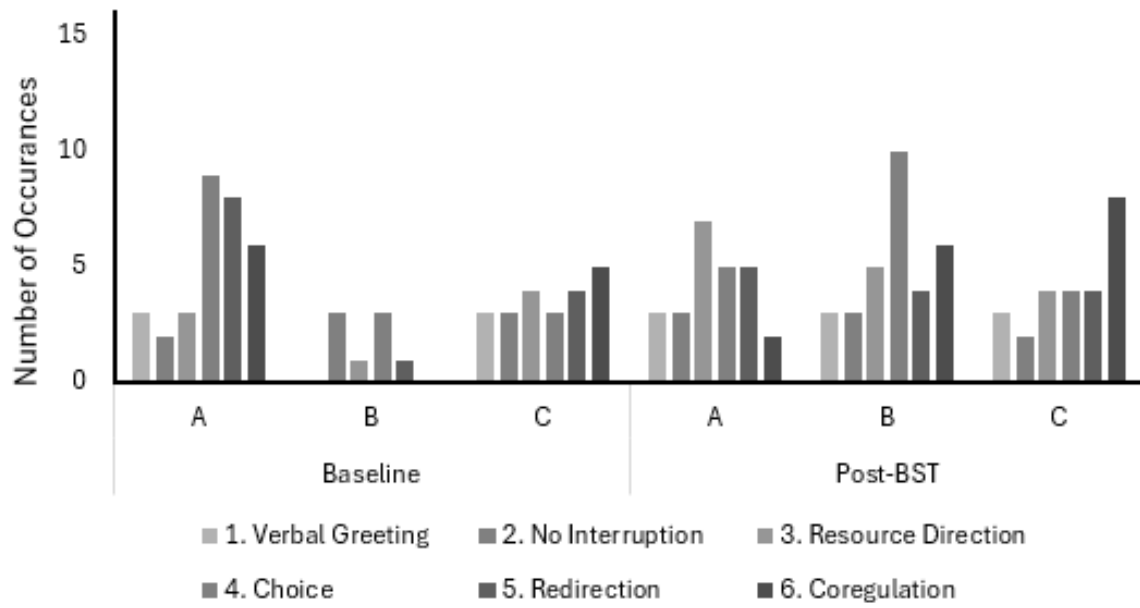
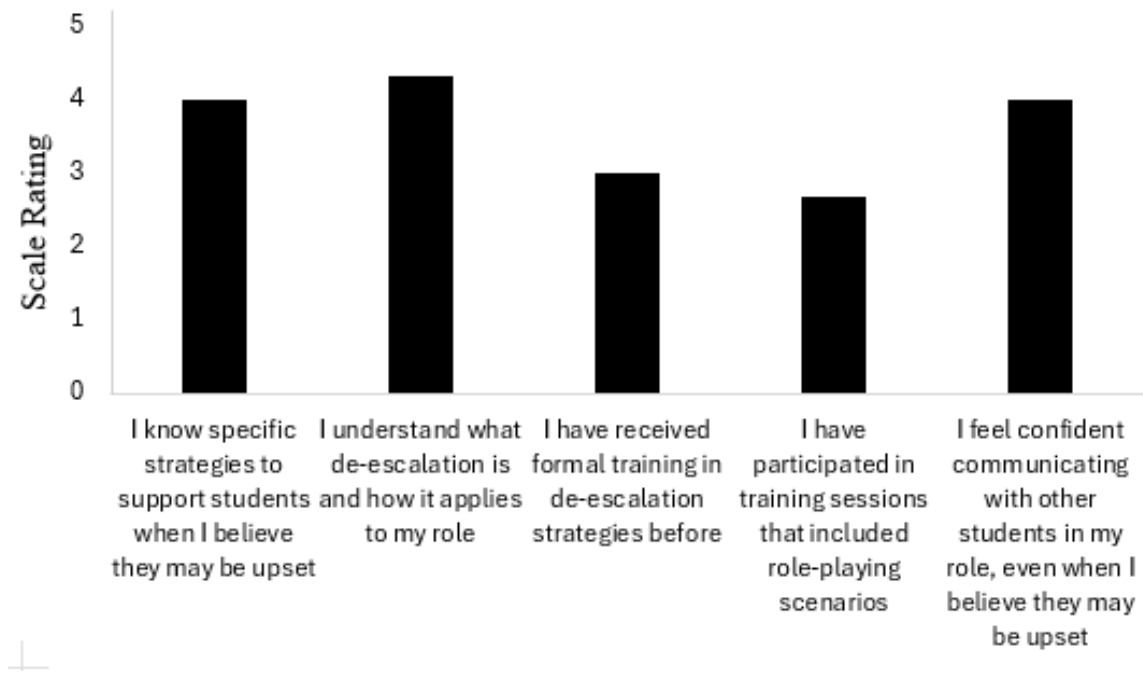


Figure 5

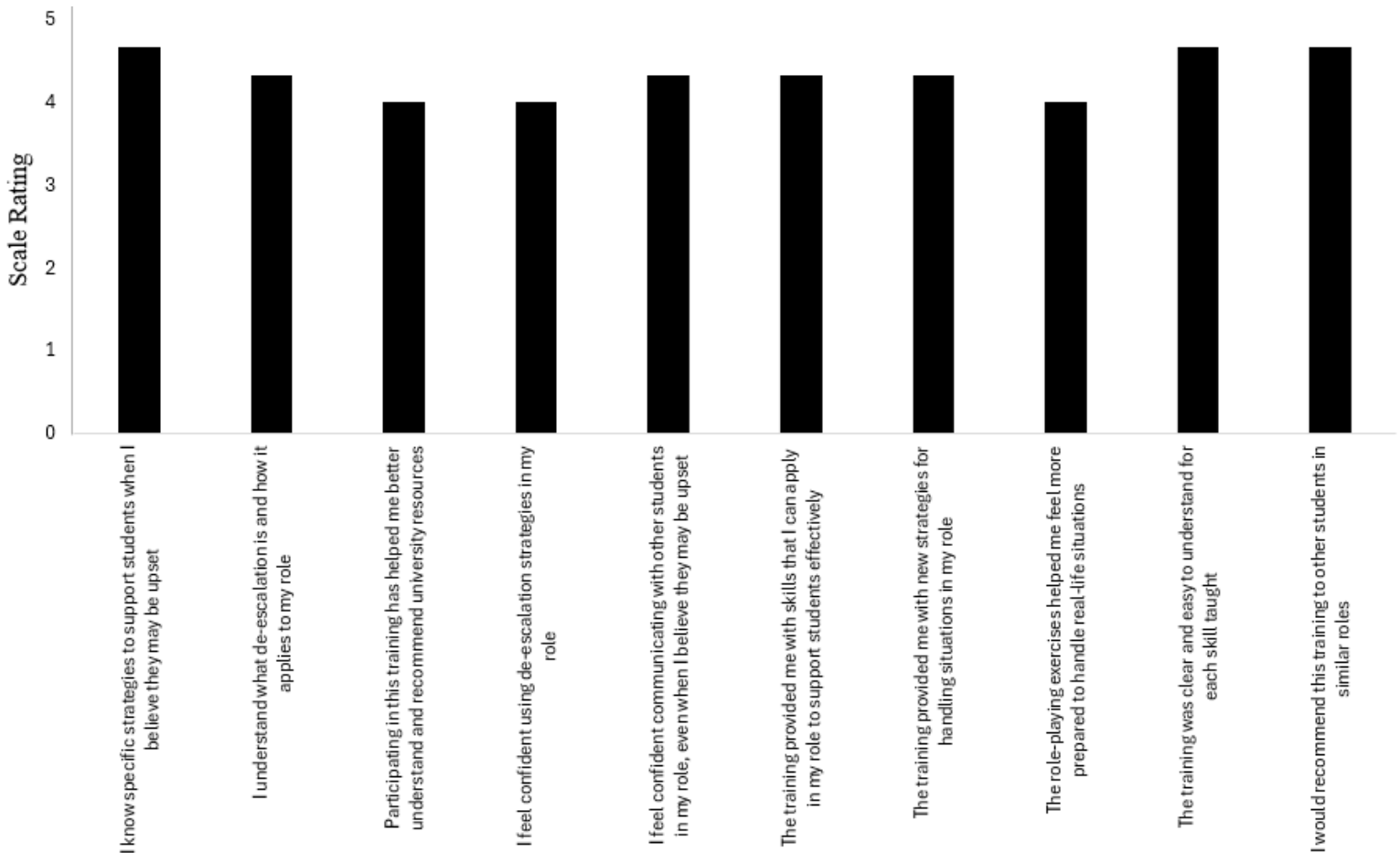
Averages of Ratings of Pre-BST Social Validity Survey from Participants



Note. The y-axis reflects the 5-point Likert-type scale provided to participants, where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree

Figure 6

Averages of Ratings of Post-BST Social Validity Survey from Participants



Note. The y-axis reflects the 5-point Likert-type scale provided to participants, where 1 = strongly agree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree

Appendix A

Baseline/Post-BST Session Set up Checklist for Researcher

Item	Completed (Yes/No)
Set up room to include table/desk with two chairs on the side with the participant, one chair on the opposing side facing participant.	
Set up camcorder verifying angle is encompassing view of room for session scoring.	
Invite participant into room/guide to be seated behind table/desk.	
Explain to participant that they will roleplay with you for 5 minutes. The participant will play the role of “student leader” and you will play the role of student. Inform participant to “act as though you are meeting this student for the first time and have never worked with them before.”	
Explain to participant that the session will be recorded and reviewed post-session. Ensure that their confidentiality will be maintained.	

The data sheets included have been taken and revised from: Lepley, M. (2024). An investigation on the effect of behavioral skills training on public school staff member’s rapport building skills. [Master’s thesis, Salem State University].
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Appendix B

Scoring of Participant Initial Behaviors and Behavioral Response Strategies (utilize for Baseline and Post-BST sessions)

Item:	NOT Achieved:	Achieved:
Initiates a verbal greeting		
Refrains from verbal interruption of student’s initial verbal statement		
Verbally directs to one or more university resources whose roles correlate with the presenting tasks or complaints Scenario 1: Tutoring Services Scenario 2: Academic Advising Scenario 3: Writing Center		
Choice: Provides student with multiple (minimum of 2) acceptable options of related tasks successively		
Redirection: Provides student with a brief verbal statement towards engaging in a more appropriate task or behavior.		
Coregulation: Verbal interaction prompting participation in modeling a desired behavior intended to assist student in engaging in more appropriate task or behavior.		

The data sheets included have been taken and revised from: Lepley, M. (2024). An investigation on the effect of behavioral skills training on public school staff member’s rapport building skills. [Master’s thesis, Salem State University].

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Appendix C

Role-Play Checklist for Researcher (utilize for Baseline and Post-BST sessions)

Item	Achieved: None of the time	Achieved: Some of the time	Achieved: Most of the time	Achieved: All of the time
Do not greet the participant unless the participant greets you first.				
Do not comment (Yes, okay) on verbal allocation of resources unless it matches the determined scenario (Script 1: tutoring, 2: academic advising, 3: writing center)				
Choice: Only verbally accept (Yes, okay) if provided with multiple (minimum of 2) acceptable options of related tasks successively.				
Redirection: Only verbally accept (Yes, okay) if brief verbal statement towards engaging in a more appropriate task or behavior occurs.				
Coregulation: Only verbally accept (Yes, okay) if verbal interaction prompting participation in modeling a desired behavior intended to assist student in engaging in more appropriate task or behavior occurs.				

The data sheets included have been taken and revised from: Lepley, M. (2024). An investigation on the effect of behavioral skills training on public school staff member's rapport building skills. [Master's thesis, Salem State University].
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Appendix D

BST Checklist for Researcher (utilize for each of the 6 skills)

Item	Completed (Yes/No)
1. Introduce the Skill	
2. Go over resource survey answers if applicable (choice, redirection, coregulation verbal behaviors) and baseline performance results for participant	
3. Model skill with participant	
4. Rehearsal of skill by participant	
5. Engage in role-play for maximum of 5 minutes. If 100% criterion reached by participant, offer praise and move on to next skill. If not, offer praise and corrective feedback then repeat steps 3-5 until participant reaches criterion.	

The data sheets included have been taken and revised from: Lepley, M. (2024). An investigation on the effect of behavioral skills training on public school staff member's rapport building skills. [Master's thesis, Salem State University].
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Appendix E
Social Validity Checklist for Researcher

Item	Completed (Yes/No)
After Baseline Scenarios: Present pre-assessment survey	
After Post-BST: Thank participant for their being part of the study	
After Post-BST: Explain that feedback is very important as a final step	
After Post-BST: Request participant take a few moments to fill out survey before they leave and show you the completion screen (as it does not show any identifying survey answers)	
After Post-BST: Verify the completion screen from participant	
Thank participant again for taking the time to participate in the study	

The data sheets included have been taken and revised from: Lepley, M. (2024). An investigation on the effect of behavioral skills training on public school staff member's rapport building skills. [Master's thesis, Salem State University].
[file:///C:/Users/Cassie/Downloads/Margaret%20Lepley_362452_ThesisEquivalentSubmission%20\(1\).pdf](file:///C:/Users/Cassie/Downloads/Margaret%20Lepley_362452_ThesisEquivalentSubmission%20(1).pdf)

Appendix F

Behavioral Skills Trainings Protocols (one sheet catered per each skill)

Rationale:

Evidence supports that student leaders are a front line of contact and impactful to the campus environment, including their peers. By building de-escalation skills, interactions between students, faculty, and staff within the campus community could benefit.

Skills Description:

Initiates a verbal greeting

Instructions:

Participant engages in the following behavior:

- Upon entry of the researcher through the door, participant verbalizes any variation of a greeting to the participant including but not limited to:
 - o “Hello, how are you?”
 - o “Good Morning/Afternoon”
 - o “Can I help you today?”
 - o “Hi, how can I help you?”

Mark this Box when **Modeling** portion is complete

Mark this Box when **Rehearsal** portion is complete

Mark this Box when **Role-Play** portion is complete

Skill Demonstration:

Steps	Yes	No
Upon entry of the researcher through the door, participant verbalizes variation of a greeting to the participant		

Feedback Options:

“Great work! You performed with 100% accuracy on this skill

“Nice effort on this skill you performed with ____% accuracy. There were some errors on the following steps _____”

The data sheets included have been taken and revised from: Vierling, Angela (2023). Behavioral skills training as an effective intervention for teaching rapport building skills to staff. [Master’s thesis, University of Missouri-Columbia]

<https://mospace.umsystem.edu/xmlui/bitstream/handle/10355/96188/VierlingAngelaResearch.pdf?sequence=1>

Behavioral Skills Trainings Protocols

Rationale:

Evidence supports that student leaders are a front line of contact and impactful to the campus environment, including their peers. By building de-escalation skills, interactions between students, faculty, and staff within the campus community could benefit.

Skills Description:

Refrains from verbal interruption of student’s initial verbal statement

Instructions:

- Researcher begins speaking a word or phrase
- Participant refrains from interrupting until researcher concludes speaking
- Participant responds to word or phrase after researcher concludes speaking

Mark this Box when **Modeling** portion is complete

Mark this Box when **Rehearsal** portion is complete

Mark this Box when **Role-Play** portion is complete

Skill Demonstration:

Steps	Yes	No
Researcher begins speaking a word or phrase		
Participant refrains from interrupting until researcher concludes speaking		
Participant responds to word or phrase after researcher concludes speaking		

Feedback Options:

“Great work! You performed with 100% accuracy on this skill

“Nice effort on this skill you performed with ____% accuracy. There were some errors on the following steps _____”

The data sheets included have been taken and revised from: Vierling, Angela (2023). Behavioral skills training as an effective intervention for teaching rapport building skills to staff. [Master’s thesis, University of Missouri-Columbia]

<https://mospace.umsystem.edu/xmlui/bitstream/handle/10355/96188/VierlingAngelaResearch.pdf?sequence=1>

Behavioral Skills Trainings Protocols

Rationale:

Evidence supports that student leaders are a front line of contact and impactful to the campus environment, including their peers. By building de-escalation skills, interactions between students, faculty, and staff within the campus community could benefit.

Skills Description:

Verbally Directs to one or more university resources whose roles correlate with the presenting tasks or complaints

Instructions:

- 1: Participant hears researcher verbalize specified task or complaint:
 - o Doing badly on exams
 - o Doing badly on papers
 - o Interest in switching courses
- 2: Participant verbally responds appropriately with correct university resource correlating with presenting task or complaint:
 - o Doing badly on exams: verbally recommends tutoring services
 - o Doing badly on papers: verbally recommends writing center
 - o Interest in switching courses: verbally recommends academic advising

Mark this Box when **Modeling** portion is complete

Mark this Box when **Rehearsal** portion is complete

Mark this Box when **Role-Play** portion is complete

Skill Demonstration:

Steps	Yes	No
Participant hears researcher verbalize specified task or complaint		
Participant verbally responds appropriately with correct university resource correlating with presenting task or complaint: Doing badly on exams: verbally recommends tutoring services		

Participant verbally responds appropriately with correct university resource correlating with presenting task or complaint: Doing badly on papers: verbally recommends writing center		
Participant verbally responds appropriately with correct university resource correlating with presenting task or complaint: Interest in switching courses: verbally recommends academic advising		

Feedback Options:

- “Great work! You performed with 100% accuracy on this skill
- “Nice effort on this skill you performed with ____% accuracy. There were some errors on the following steps _____”

The data sheets included have been taken and revised from: Vierling, Angela (2023). Behavioral skills training as an effective intervention for teaching rapport building skills to staff. [Master’s thesis, University of Missouri-Columbia]
<https://mospace.umsystem.edu/xmlui/bitstream/handle/10355/96188/VierlingAngelaResearch.pdf?sequence=1>

Behavioral Skills Trainings Protocols

Rationale:

Evidence supports that student leaders are a front line of contact and impactful to the campus environment, including their peers. By building de-escalation skills, interactions between students, faculty, and staff within the campus community could benefit.

Skills Description:

Choice: Provides student with multiple (minimum of 2) acceptable options of related tasks successively

Instructions:

- Step 1: Participant hears researcher verbalize indecision as to whether to drop a class or talk with professor
- Step 2: Participant provides researcher with multiple (minimum of 2) acceptable options of related tasks successively
 - o Examples of options
 - “Do you want to talk about approaching the professor or about how to add the other class?”
 - “Do you want to tell me more about that or speak with academic advising?”

Mark this Box when **Modeling** portion is complete

Mark this Box when **Rehearsal** portion is complete

Mark this Box when **Role-Play** portion is complete

Skill Demonstration:

Steps	Yes	No
Participant hears researcher verbalize indecision as to whether to drop a class or talk with professor		
Participant provides researcher with multiple (minimum of 2) acceptable options of related tasks successively		

Feedback Options:

“Great work! You performed with 100% accuracy on this skill

“Nice effort on this skill you performed with ____% accuracy. There were some errors on the following steps _____”

The data sheets included have been taken and revised from: Vierling, Angela (2023). Behavioral skills training as an effective intervention for teaching rapport building skills to staff. [Master’s thesis, University of Missouri-Columbia]

<https://mospace.umsystem.edu/xmlui/bitstream/handle/10355/96188/VierlingAngelaResearch.pdf?sequence=1>

Behavioral Skills Trainings Protocols

Rationale:

Evidence supports that student leaders are a front line of contact and impactful to the campus environment, including their peers. By building de-escalation skills, interactions between students, faculty, and staff within the campus community could benefit.

Skills Description:

Redirection: Provides student with a brief verbal statement towards engaging in a more appropriate task or behavior.

Instructions:

- Step 1: Participant hears researcher verbalize concerns regarding passing upcoming tests
- Step 2: Participant provides researcher with a brief verbal statement towards engaging in a more appropriate task or behavior
 - o Examples of options
 - “Maybe we could make a study plan together for the upcoming test”
 - “Maybe we can look at the study guide you made”

- Mark this Box when **Modeling** portion is complete
- Mark this Box when **Rehearsal** portion is complete
- Mark this Box when **Role-Play** portion is complete

Skill Demonstration:

Steps	Yes	No
Participant hears researcher verbalize concerns regarding passing upcoming tests		
Participant provides researcher with a brief verbal statement towards engaging in a more appropriate task or behavior		

Feedback Options:

- “Great work! You performed with 100% accuracy on this skill
- “Nice effort on this skill you performed with ____% accuracy. There were some errors on the following steps _____”

The data sheets included have been taken and revised from: Vierling, Angela (2023). Behavioral skills training as an effective intervention for teaching rapport building skills to staff. [Master’s thesis, University of Missouri-Columbia]
<https://mospace.umsystem.edu/xmlui/bitstream/handle/10355/96188/VierlingAngelaResearch.pdf?sequence=1>

Behavioral Skills Trainings Protocols

Rationale:

Evidence supports that student leaders are a front line of contact and impactful to the campus environment, including their peers. By building de-escalation skills, interactions between students, faculty, and staff within the campus community could benefit.

Skills Description:

Coregulation: Verbal interaction prompting participation in modeling a desired behavior intended to assist student in engaging in more appropriate task or behavior

Instructions:

- Step 1: Participant hears researcher verbalize that they have their written papers with them but they are bad grades.
- Step 2: Participant provides researcher with verbal interaction prompting participation in modeling a desired behavior intended to assist student in engaging in more appropriate task or behavior
 - o Examples of options
 - “Given you brought your papers with you, I can tell this must be frustrating issue you want to resolve. Would you sit over here with me while we talk through the available options?”
 - “I can see you brought your papers with you and that you want to resolve this right away. Let us maybe look at the topic of the next paper together?”

Mark this Box when **Modeling** portion is complete

Mark this Box when **Rehearsal** portion is complete

Mark this Box when **Role-Play** portion is complete

Skill Demonstration:

Steps	Yes	No
Participant hears researcher verbalize that they have their written papers with them but they are bad grades.		
Participant provides researcher with verbal interaction prompting participation in modeling a desired behavior intended to assist student in engaging in more appropriate task or behavior		

Feedback Options:

“Great work! You performed with 100% accuracy on this skill

“Nice effort on this skill you performed with ____% accuracy. There were some errors on the following steps __”

The data sheets included have been taken and revised from: Vierling, Angela (2023). Behavioral skills training as an effective intervention for teaching rapport building skills to staff. [Master’s thesis, University of Missouri-Columbia]

<https://mospace.umsystem.edu/xmlui/bitstream/handle/10355/96188/VierlingAngelaResearch.pdf?sequence=1>

Appendix G

Pre-Assessment Social Validity Survey

Pre-Assessment Statements (All are answered using a 5-point Likert scale)

1. I know specific strategies to support students when I believe they may be upset.
2. I understand what de-escalation is and how it applies to my role.
3. I have received formal training in de-escalation strategies before.
4. I have participated in training sessions that included role-playing scenarios.
5. I feel confident communicating with other students in my role, even when I believe they may be upset.

Pre-Assessment Campus Resources Answer Key:

1. Provide a safe and secure environment that supports and enhances the educational mission of the university... suspicious or criminal activity, as well as other emergencies, may be reported. **Answer: University Police**
2. Undergraduate students who have taken and done well in the course... can break down challenging material into smaller parts, provide study tips. **Answer: Tutoring Services**
3. Assist writers with topic development, brainstorming, organization, sentence-level writing issues, citation... writing groups, and study sessions. **Answer: Writing Center**
4. Committed to providing students with guidance and support as they explore academic opportunities available to them. **Answer: Academic Advising**
5. Offers medical care, consultation on health-related issues... offers confidential, short-term individual and group counseling. **Answer: Counseling and Health Services**

Appendix H
Post-Assessment Social Validity Survey

Post-Assessment & Social Validity Statements (All are answered using a 5-point Likert scale)

1. I know specific strategies to support students when I believe they may be upset.
2. I understand what de-escalation is and how it applies to my role.
3. Participating in this training has helped me better understand and recommend university resources.
4. I feel confident using de-escalation strategies in my role.
5. I feel confident communicating with other students in my role, even when I believe they may be upset.
6. The training provided me with skills that I can apply in my role to support students effectively.
7. This training provided me with new strategies for handling situations in my role.
8. The role-playing exercises helped me feel more prepared to handle real-life situations.
9. The training was clear and easy to understand for each skill taught.
10. I would recommend this training to other students in similar roles.

Appendix I
Baseline/post-BST Scenario 1 Script

Complaint: Poor Teaching/Instruction Scenario with Upcoming Test

Behavioral Action: Pacing

Presenting Tasks: Assistance with exams, study guides

Correlating Resource: Tutoring services

Student approaches and remains standing in front of student leader on opposing side of desk. Student completes speaking the first two sentences facing the student leader and then begins to pace back and forth across the room. Completes initial sentences with continued pacing.

Student: “I need help with one of my classes because I keep doing badly on the exams. My professor gives us study guides but I don’t understand what they mean. When I ask the professor, they answer, but it’s not clear and I still have no idea what is going on for the tests. I don’t know how I’m supposed to pass this next test if the professor is this bad at teaching.”

Student Leader: *Engages student*

Appendix J

Baseline/post-BST Scenario 1 Verbal Behaviors Scoring Examples

Complaint: Poor Teaching/Instruction Scenario with Upcoming Test

Behavioral Action: Pacing

Strategy	Definition	Examples
Choice	Provides student with multiple (minimum of 2) acceptable options of related tasks successively	“Would you feel comfortable telling me more about the layout of previous tests from this class or would you prefer taking a look at the study guide together?”
Redirection	Provides student with a question or statement towards engaging in more appropriate task or behavior.	“Maybe we could make a study plan together for the upcoming test?”
Co-Regulation	Verbal statement prompting participation in modeling a desired behavior intended to assist student in engaging in more appropriate task or behavior.	“Before we talk more about this, I want to make sure you are okay and it seems like walking is helpful to you. Would you like to take a walk together for a bit while we talk?”

The data sheets included have been taken and revised from: 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(1), 80–85. <https://doi.org/10.1007/s40617-015-0045-4>

Appendix K
Baseline/post-BST Scenario 2 Script

Complaint: Concern and indecision surrounding switching courses with faculty from the same department

Behavioral Actions: Head down, increasing magnitude in visible foot tapping

Presenting Tasks: Assistance in switching courses, contacting professor

Correlating Resource: Academic Advising

Student approaches the table/desk and sits in a chair on the opposing side of the desk/table facing the student leader. Student completes speaking the first two sentences then directs head and eye contact downward and begins tapping foot, increasing magnitude at the end of each of the initial sentences.

Student: “I kind of have a situation with one of my classes. I overheard one of my classmates talking about some of the good things going on in her course with a different professor. Both of the courses are for the same requirement. I really like my professor and I don’t want to have them hold it against me for dropping and switching out of their class because both professors are from the same department. But I really am considering if maybe I should switch.”

Student Leader: *Engages student*

Appendix L

Baseline/post-BST Scenario 2 Verbal Behaviors Scoring Examples

Complaint: Concern and Indecision surrounding switching courses with faculty from the same department

Behavioral Actions: Head down, increasing magnitude in visible foot tapping

Strategy	Definition	Examples
Choice	Provides student with multiple (minimum of 2) acceptable options of related tasks successively	“Do you want to talk about approaching the professor or about how to add the other class?”
Redirection	Provides student with a question or statement towards engaging in more appropriate task or behavior.	“Would you like to talk more about the pros and cons of both classes?”
Co-Regulation	Verbal statement prompting participation in modeling a desired behavior intended to assist student in engaging in more appropriate task or behavior.	“I saw your foot tapping a bit and wanted to check in because sometimes it is a sign of stress. Would you like to take a break and see our available snacks with me while we look at available course times?”

The data sheets included have been taken and revised from: 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(1), 80–85. <https://doi.org/10.1007/s40617-015-0045-4>

Appendix M
Baseline/post-BST Scenario 3 Script

Complaint: Unfair Grading of Papers

Behavioral Actions: Standing upright, increasing magnitude of speech, drops papers on surface directly in front of student leader

Presenting Tasks: Paper improvement assistance, available resources

Correlating Resource: Writing Center

Student approaches the table/desk and stands upright directly on the opposite side of the desk/table facing the student leader. Student completes speaking the first two sentences then increases the magnitude of speech at the end of each of the initial sentences following the first two. At the completion of the paragraph below, student drops papers on the surface (desk/table) directly in front of student leader.

Student: “I just don’t know what to do about this class anymore. I’ve tried to get better at these papers but once again I got another bad grade. The way the professor grades these is just so unfair. I don’t know what I’m doing wrong and I don’t know how to fix it. I’ve done a couple of these by now too. Maybe you know something that can be done about this because I do not.”

Student Leader: *Engages student*

Appendix N

Baseline/post-BST Scenario 3 Verbal Behaviors Scoring Examples

Complaint: Unfair Grading of Papers

Behavioral Actions: Standing upright, increasing magnitude of speech, drops papers on surface directly in front of student leader

Strategy	Definition	Examples
Choice	Provides student with multiple (minimum of 2) acceptable options of related tasks successively	“Would you like to talk about what the past papers were like or would it be more helpful to have help planning for the next one?”
Redirection	Provides student with a question or statement towards engaging in more appropriate task or behavior.	“Have you heard about our library resources and the writing center before?”
Co-Regulation	Verbal statement prompting participation in modeling a desired behavior intended to assist student in engaging in more appropriate task or behavior.	“Given you brought your papers with you, I can tell this must be really frustrating issue you want to resolve. Would you sit over here with me while we talk through the available options?”

The data sheets included have been taken and revised from: 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(1), 80–85. <https://doi.org/10.1007/s40617-015-0045-4>