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The Effectiveness of Interpersonal Communication and Active-Listening Skills with Individuals with Communication Disorders

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The Effectiveness of Interpersonal Communication and Active-Listening Skills

with Individuals with Communication Disorders

Mandy Adams

Introduction

There is increasing presence of peer mentoring programs for students with intellectual and developmental disabilities (IDD) on university campuses across the United States. Culnane, Eisenman, and Murphy (2016) listed 27 peer-mentoring programs model programs that are sponsored by the Higher Education Opportunity Act. The purpose of these campus peer-mentoring programs is to promote inclusion and social connection through relationships with peer-mentors (Culnane, et al., 2016). Campus-based peer-mentoring programs are also focused on fostering increased independence, and overall post-secondary success for individuals with intellectual and developmental disabilities (IDD; Culnane, Eisenman, Murphy, 2016).

A peer-mentoring program of the nature described above exists at the southeastern university where the current research project took place. This program, like many of its kind, recruits student volunteers to serve as peer mentors, many of whom are pursuing degrees in a variety of therapeutic fields. Of the several fields represented are pre-service speech language pathologists (SLP). This pre-existing framework allowed for the development of the current research project which was designed to explore the communicative interactions between pre-service SLP students (peer mentors) and individuals with IDD (peer mentees), and the effect training in an empirically-based active listening strategy (LAFF; McNaughton, Hamlin,

McCarthy, Head-Reeves, & Schreiner, 2008, McNaughton & Thistle, 2015) had on these interactions.

The research literature to date suggests this active listening strategy can be learned by a range of communication partners including related-service professionals and parents and is effective at improving communication outcomes and satisfaction (McNaughton & Thistle, 2015, Galil, Bachner, Merrick, Flusser, Lubetzky, Heiman, Carmel, 2005, Gulman, Vollenbroek-Hutten, van Gemert-Pijen, van Harten, 2012). Because of these previously successful demonstrations of the acquisition and use of this listening strategy, it was hypothesized this strategy could be effective for improving and supporting communication between peer mentors and peer mentees in a university-based peer mentoring context.

A review of the literature indicated there is a need for communication and listening strategy instruction in this area of service provision. A qualitative research study by Morris, Dudgeon, and Yorkston (2013), complied the experiences of adult who use AAC to communicate with their medical providers. This research highlighted the need for research in this area. The purpose of the study was to explore patients' common concerns, frustrations, and positive and negative aspects of communication experienced during their medical care. Some on the main issues discussed included: not being given the choice to answer certain questions, nonverbal markers and the word choice of their medical providers, not being communicated with directly, and instead collecting medical and other information from caregivers, experiencing incorrect assumptions about their cognitive abilities, and experiencing frustration about the amount of time spent in conversation with the medical professional. Most of these aspects of communication that influenced the patient's experience and perception of the medical provider's intention could be attributed to the interpersonal communication and listening skills used by the

provider, or lack thereof. These communication issues and breakdowns between the patient and the medical provider need to be addressed in order to provide a more effective intervention. The training of professionals who work with individuals with communication impairments and complex needs in communication and listening strategies has been the subject of some research to date, but there are still many unknowns. One area that has not been studied as intensely is the ability to teach communication and listening strategies to pre-service speech-language pathology students and produce empirically effective outcomes.

Though there is some research in this area, much of the current literature related to training pre-service SLP's in communication skills is through the use of simulated clients, or role play activities (McNaughton & Thistle, 2015, Towson, Taylor, & Tucker, 2018, King, Shepherd, Servais, Willoughby, Bolack, Strachan, Moodie, Baldwin, Knickle, Parker, Savage, Mcnaughton, 2014, Zraick, Allen, & Johnson, 2003). This was an appropriate approach, as these studies were in the initial process of exploring the use of these strategies. However, very little has been done with providing instruction or evaluating the outcomes of instruction in active listening strategies during direct client-provider contact (Burns, Baylor, Morris, McNalley, Yorkston, 2012, King et. al., 2014, Towson, Taylor, Tucker, 2018, Zraick, Allen, Johnson, 2003). This is a future direction is one that has been suggested by researchers in this field, but has not been pursued to date (McNaughton & Thistle, 2015).

Getting consistent data collection can be challenging when including real clients as participants in research of this nature (Cleland, Abe, & Rethans, 2009). The current study draws on the presence of a real world participant sample in the form of a university-based peer-mentoring program. This participant sample may allow the previous barrier to be overcome

because regular interaction between the pre-service SLP and his/her peer mentee with communication impairment is a built-in component of the mentoring program.

Further, the direct client contact is the preferred method for training pre-service SLPs in the field more broadly. ASHA (2014) standards require 375 hours of direct client contact, and allow only 20% of these hours to be through clinical simulations. This highlights the importance of genuine, face-to-face contact and interaction in the training of pre-service SLP's. The participant population in the current study is undergraduate pre-service SLP students. As most undergraduate SLP students are not provided with the opportunity to earn direct clinical hours, they have infrequent natural opportunities to practice communication and active listening skills with parents or clients. This study is a unique step forward in building the research evidence in training active listening skills because of this aspect, and is one way to potentially expose and teach pre-service undergraduate students clinical skills earlier on in their education. For these reasons, the research team decided to explore the effectiveness of teaching an active listening strategy to undergraduate pre-service SLP students who regularly interact with peers with communication impairments through their involvement in peer-mentoring.

In addition to research need of interpersonal communication skills in a direct-contact setting, this specific program model presents a unique opportunity to explore the application of these skills in the real-time education of undergraduate pre-service SLP's. This pre-existing program that pairs pre-service SLP's and college-age individuals with communication disorders provided a clear avenue of setting of the exploration of the effectiveness of the "Listen, empathize, and communicate respect, Ask questions, and ask permission to take notes, focus on the issues, and find the first step" (LAFF) strategy with this population (McNaughton, Hamlin, Head-Reeves, & Schreiner, 2008; p. 224. This program also requires peer mentors build their

capacity for mentoring through direct instruction through formal coursework. Therefore, it was decided that the training in the active listening strategy would be presented as a lecture topic in the college course taken by all peer mentors. Choosing this setting lessened undue additional requirements on the participants as much of the time commitment for learning the LAFF strategy were embedded in a pre-existing requirement for being a peer mentor. This setting for instruction also allowed other peer mentors who were not formal participants in the study to be exposed to the listening strategy steps and components.

This is not a new concept; service learning is an instructional method used regularly in higher education that involves students actively volunteering in a context or setting that is similar to where they are intending to work as a professional. In service-learning courses, students are required to complete a specific number of volunteer hours and then reflect on these experiences as a portion of the learning and evaluation process. Literature on this subject has provided evidence that this type of instruction supports the development of critical-thinking skills, student perception of the usefulness of the course, student satisfaction with the course, and improved perception of self-competence in students (Peters, 2011).

The LAFF strategy is an active-listening and communication skills strategy that was developed by McNaughton, Hamlin, Head-Reeves, and Schreiner (2008) and has been demonstrated to be effective at improving the communication process and outcomes (McNaughton, 2008; McNaughton & Thistle, 2015.) For a detailed description of this listening strategy, see McNaughton, Hamlin, Head-Reeves, and Schreiner (2008) or McNaughton and Thistle (2015). Because the effectiveness of this strategy has yet to be investigated with undergraduate pre-service SLP students in a college-based peer mentorship program, the current research project was designed to address this gap in the research literature. The research

questions for the current project were: 1. Can undergraduate pre-service SLP student learn the LAFF strategy during service-learning course instruction, and 2. Does training in the LAFF strategy improve communication between undergraduate pre-service SLPs and individuals with communication disorders? 3. How do the participants perceive LAFF strategy skills?

Method

Design

This study used a pre- and post-test design to measure the learning of a listening strategy by undergraduate pre-service speech-language pathology students in a university setting. A pre-test assessment was administered, and then the participants were trained in the Listen, Ask, Focus, Find (LAFF) strategy (McNaughton, Hamlin, Head-Reeves, & Schreiner, 2008). Acquisition of the training content was assessed using a post-test, and application of the strategy components was evaluated using a checklist and behavioral observation of the pre-service SLPs use of the strategy components in interactions with their peer mentees, adults with developmental disabilities. The social validity of this strategy was evaluated through surveys completed by administrators who supervise the participants. These surveys contained both yes and no as well as open-ended questions.

Participants

Peer Mentors. The participants of this study were undergraduate students per-service SLP students who served as peer mentors for a southeastern university's post-secondary education and peer-mentor program for college-age individuals with IDD. This program was designed to help young adults with IDD make a successful transition to college and then on to employment and adulthood. The core goal of the program is to facilitate to development of independent living and learning skills through the development of a supportive relationship with a peer mentor and

engagement in college coursework and internship opportunities. This program partners with a university service-learning class to recruit peer mentors. The students enrolled in the service-learning class agree to complete a specified number of hours as peer mentors as part of the course requirements. The role of a peer mentor is to provide support for their peer mentees throughout the day. This support may look like accompanying the peer mentee to their classes and the internships they are completing, eating lunch together, and attending social events planned by the peer mentorship program. Peer mentors also agree to work with their peer mentees during designated study hours. In sum, the peer mentors provide social, academic, and vocational support for their peer mentees as they transition between dependence and independence in their post-educational pursuits. Many, but not all, of the peer mentors were audiology and speech pathology undergraduate students.

Current project. The current project ended up being a pilot project involving one peers mentor and two peer mentees. The peer mentor was an undergraduate pre-service education professional who was recruited through an IRB approved recruitment message via email. The peer mentor voluntarily contacted the investigator and after being provided with details of the project and being given an opportunity to ask questions about the project, provided her informed consent to participate in this study.

Peer Mentor Program Students with Intellectual and Developmental Disabilities. The peer mentees with intellectual and developmental disabilities also either provided their informed consent to participate in the research or, if they were not able to consent for themselves, provided their verbal assent to participate after parent/guardian informed consent was obtained. Two peer mentees working with the same peer mentor participated in the current investigation. These students consented (or assented) to have one interaction with their peer mentor during a study

session recorded for the purpose of data analysis. The peer mentees also agreed to complete a post-study survey about their perceptions of the interaction with their peer mentor.

Observational Setting

Every peer mentor and peer mentee in the university-based mentorship program is required to attend study hours every week with the expectation their assignments for classes will be completed during this time. The role of the peer mentor during these study sessions is to assist the peer mentee with these assignments when necessary. The study sessions provide an optimal opportunity for the peer mentees to talk with their peer mentors about their concerns and their progress in their academic courses.

Background knowledge about the mentorship program study sessions provided the researcher with the insight that it was common for problems to be discussed between the peer mentee and their peer mentor during these interactions. During these study sessions peer mentors serve as tutors, encouragers, and communication liaisons between the peer mentee and their professors. For these reasons, study sessions provided a unique opportunity to explore the usefulness of the LAFF strategy in a natural context. With the high likelihood of problem-solving situations arising in these sessions, it was probable an opportunity for using the skills of the LAFF strategy would arise naturally.

Procedures

Listen, Ask, Focus, Find (LAFF) Strategy. The LAFF strategy is the independent variable for the current project. This active listening strategy was originally described by McNaughton, Hamlin, McCarthy, Head-Reeves, and Schreiner (2008). The strategy was originally developed based on a review of the published literature related to teaching active listening skills (McNaughton, Hamlin, McCarthy, Head-Reeves, & Schreiner, 2008; McNaughton & Thistle,

2015). The components of this communication and active listening strategy, as they were used in the current research project, are described in detail below.

Step 1: *Listen, empathize, and communicate respect.* This step directed the peer mentors to listen to the concerns of the peer mentees, while using active listening skills, and non-verbal markers of attentiveness. The peer mentors were instructed to neither agree nor disagree with the statements made by their peer mentees.

Step 2: *Ask questions, and ask permission to take notes.* The participants were instructed ask permission to write down the peer mentees' concerns, and to ask follow-up questions about the statements made.

Step 3: *Focus on the issues.* For this step the peer mentors were instructed to summarize the peer mentees' concerns back to them, and confirm their understanding. First, the pre-service SLP was instructed to make a clear signal that she/he was shifting from asking questions to summarizing the concern (e.g., " I want to quickly make sure I understood everything you've told me"). Following this summary, the peer mentors were instructed to confirm the accuracy of their statement/summary with their peer mentee.

Step 4: *Find a first step.* As the participants were peer mentors and peer mentees of a program that is established to promote independence and self-advocacy in individuals with IDD, the peer mentors were instructed to collaboratively generate a solution with his/her peer mentee, and when at all possible, be only in a position of facilitation in addressing the issues or challenges communicated by the peer mentee. It was considered an inappropriate course of action for the peer mentor to address the stated issues/challenges themselves, independent of their peer mentee.

Participant Instruction

The peer mentor was trained, along with her classmates, in the components of the LAFF

strategy through a guest lecture in a 75-minute class period during a required class. The

instructional strategy used for teaching this content for the purposes of this study was an eight-

step strategy instruction approach empirically validated for teaching a communication partners of

people with intellectual and physical disabilities to use specific communication and interaction

strategies (see Kent-Walsh & McNaughton, 2005). The eight steps in the instruction were as

follows: *pretest, strategy description, strategy demonstration, verbal practice of strategy steps,*

controlled practice and feedback, advanced practice and feedback, posttest, and generalization

of targeted strategy use. This strategy has been shown to be effective in supporting the

acquisition, generalization, and establishment/use of communication strategies by a variety of

communication partners, which aligned well with the goal of the current study (Kent-Walsh &

McNaughton, 2005).

Pretest. Before the researcher provided the instructional lecture, the participant took part

in a baseline observation session with her peer mentee. This baseline session occurred during a

regularly scheduled study session between the peer mentor and the peer mentee. During this

baseline session neither the peer mentor nor the peer mentee had been exposed to any

information about the LAFF strategy. The peer mentor and peer mentee knew only that the peer

mentor would be learning about active listening. This session established the baseline, or pre-

intervention, communication patterns of the dyad prior to learning the LAFF listening and

communication strategy.

Strategy Description, Demonstration, Verbal Practice of Strategy Steps, Controlled

practice and feedback, & Advanced practice and feedback. Within the 75-minute class, the

primary researcher presented a PowerPoint lecture on the LAFF strategy. Within this

presentation were pauses to discuss, question, and practice the strategy. After a brief description of the original article to provide validity for the use of this strategy, the researcher described each step of the strategy in detail, providing a model and non-model of the step. During this time, metacognitive explanations of why the strategy points are impactful were given and discussed by the class. After this was completed, the class reviewed the steps by describing them back to the researcher. At this point, situational examples were given for the class to practice in pairs. After several minutes, the group reconvened, and pairs volunteered to discuss their strengths and weakness during their simulated experiences. After this, the pairs discussed an example of a problem they had experienced personally that past week or semester with their peer mentees. This step served as the advanced practice as it was applicable to each person, and they could experience the use of the skills in a way might help them to personally understand the impact of the use of this communication and listening strategy.

Posttest. This step was completed through the post-instructional observation. Again, the peer mentor was observed and recorded in a study-session with her peer mentee. This observation happened seven days after the instructional lecture.

Measurement

The assessment of the peer mentor's use of the LAFF strategy in this study modeled after the procedures for data analaysis reported by McNaughton and Thistle (2015). The pre- and post-instruction data collected from the peer mentor were analyzed using an adaptation of a publicly available rubric, available from https://scholarsphere.psu.edu/concern/generic_works/sf268983q.

Along with the rubric, the length of time the participant spoke, and the number of conversational turns was recorded for each session.

Social Validity

Researchers determined the need to investigate the social validity of learning the strategy taught in this study for two reasons: first, to some extent, the analysis of communication can only be subjective, as it is based on the observer's perspective. Thus, quantitative date collection of the pre- & posttest observation sessions cannot sufficiently or comprehensibly report a complete understanding of the participant's use of an interpersonal communication strategy. Second, the intention behind the original development use of this strategy was to train communication partners in a strategy that facilitated the use of communication skills perceived to be positive by those using them, as well as those responding to them (McNaughton & Thistle, 2015). Thus, a measure that ascertained the perception of these skills by the peer mentor and peer mentees was necessary.

For the current study, social validity was measured through the use of a survey distributed to the peer mentor and peer mentee following the post-instruction observation session. The peer mentor and peer mentee completed separate surveys. The questions within the survey were open-ended, and addressed the topics of benefits and challenges of the strategy, usefulness of the strategy, reflection of use, opinions on the effectiveness of this strategy facilitating the problem resolution, impact on mentor-mentee relationship, and impact on comfort of communication.

The peer mentor survey included the questions of: (1) Would you recommend others learn the LAFF strategy? (2) What benefits do you see to using this strategy? (3)What disadvantages do you see to using the strategy? (4) In what situations (i.e. types of conversations) could you see the strategy being useful? (5) Was there anything you did not do in your post-instruction performance that you wish you had done? (6) Did you feel this strategy was effective in helping gather information? (7) Did you feel this strategy was effective in facilitating

clear communication with your mentee? (8) Did you feel this strategy was effective in helping your mentee address his/her issue (e.g. homework, communication breakdown with professor, etc.)? (9) Did you feel this strategy was effective in facilitating a positive relationship with your mentee and you? (10) Did using this strategy improve your comfort in communicating with your mentee? Questions 1-5 were directly taken from McNaughton and Thistle (2015) while the last five questions were developed specifically for the current study.

The measure of social validity from the peer mentees was collected through another survey. This survey asked open-ended questions to minimize asking a leading question. These questions addressed the negative and positive communication behaviors of the peer mentor during the course of the academic semester. The intention was to have the student generate a list of communicative behaviors that were used by the peer mentor and then compare this list to the skills listed within the LAFF strategy. The survey contained questions that specifically asked the peer mentee to list good and negative communication behaviors their peer mentor used. The questions asked were dependent on the individuals' response to the first question, (1) Comparing the beginning of the semester to the other day when I most recently recorded your study hours, do you think your mentor used better communication skills? If the individual responded with "yes," the following questions were asked: (2) If yes, what are the good things he/she did that make you say he/she communicated better? (3) What are the negative communication behaviors he/she used that you noticed? (4) What were the good things he/she did that were helpful when communicating at the beginning of the semester? (5) What were the negative communication behaviors he/she used that you noticed at the beginning of the semester? (6)Did you feel that your mentor understood you better at the end of the semester versus the beginning of the semester? (7) Did you feel that your mentor was helpful when you expressed a problem to them?

(8) If yes, how were they helpful? If the individual responded with "no" to the first question, the next series of questions were asked: (2) What were the good things he/she did that were helpful when communicating this semester? (3) What were the negative communication behaviors he/she used that you noticed this semester?

The survey responses from the peer mentees were analyzed for common themes. From this, a list of all skills mention that are included in the LAFF strategy was created, with a separate list of the skills not included in the LAFF strategy. The survey responses of both of the participants were analyzed for common themes as well, which will be discussed in the results section.

Results

In the presentation of results of this study, pre- and post- measures will be presented descriptively for comparison due to the limited number of participants. To obtain the frequency data for use of the strategy components in the baseline and post-instruction sessions, the participant's use of strategy skills was analyzed using the scoring rubric in Table 1.

Results of the data analysis are presented as averages of the accuracy of use of each strategy step during the data collection sessions. A perfect score, or average across all four components of the LAFF strategy would be a 4.75. Pre-instruction, the participant averaged a 3.25 score. The peer mentor used all of the components of the LAFF strategy during the baseline session. Post-instruction, the peer mentor's use of the LAFF steps averaged 3.00. When viewing the scores per LAFF component, and it is clear there is no one session in which the peer mentor better implemented the LAFF strategy when interacting with her peer mentee.

The score for implementation of the LAFF component *Listen & empathize* was higher during the post-instruction session. The peer mentor scored a 4 in the post-instruction session

and a 3 in the pre-instruction session. However, in the pre-instruction session, the participant had higher scores for both the *Ask questions* and *Find the first step* components of the LAFF strategy. This participant received a low score in both instances for *Focus on the issues* component, scoring only a 2 out of 5 in both the pre- and post-instruction sessions. The peer mentor never took notes or offered to write anything down during either of the data collection sessions. The peer mentor also scored lower for the *Find the first step* component of the LAFF strategy, scoring a 3 pre-instruction an a 2 post-instruction. The peer mentor suggested making a plan to resolve the concern, at best, but the pair did not ever discuss a plan for follow-up. These results do not suggest an improvement of active-listening skills as a result of the instruction provided.

During the data analysis process the conversation length was calculated, all turns were transcribed, and then number of turns was also calculated (See Table 2). The pre- instruction conversation lasted 7.91 minutes. Within this conversation, the peer mentee's turns averaged 6.22 seconds, with 36 turns total. The peer mentor's turns averaged 8.14 seconds, with 38 turns total. The post-instruction session lasted 2.68 minutes. The peer mentee averaged 4.26 seconds per turn, with 19 turns total. The peer mentor averaged 4.23 seconds per turn, with 19 turns total. Thus, in the pre-instruction session, the conversation was longer, and there were more conversational turns. However, in the post-instruction session, the turn and turn lengths between the peer mentor and peer mentee were more equal.

Table 1.

Peer Mentor Outcomes	Listen & empathize	Ask questions	Focus on the issues	Find the first step
Pre-instruction	3	5	2	3

Post-instruction	4	4	2	2

*Results according to scoring rubric

*Listen & empathize section is ranked from 0-4, while to following sections are ranked 0-5.

Table 2.

	Pre-instruction		Post-Instruction	
Variable	Time Speaking per turn (sec)	Turns (total)	Time speaking per turn	Turns
Peer Mentee	6.22	32	4.26	19
Peer Mentor	8.14	33	4.23	19
Total Interaction	7.91 min	65	2.68 min	38

*Note: results are averages of conversational episode

Social Validity

One peer mentor and one peer mentee completed the post-instruction survey. The peer mentee's responses will be presented first. The peer mentee reported feeling the peer mentor had improved in use of communication skills, and specifically stated, "She asks good questions." The peer mentee also felt that his mentor was helpful when he expressed a problem because the mentor encouraged the student to "talk about it and figure out a way to fix it." These two attributes relate to the LAFF components *Ask questions, Focus on the Issues* and *Find the first step*. In addition, the peer mentee's responses reflected he did not perceive any negative communication behaviors from the mentor, that the mentor was helpful with completing tasks that are difficult, and that their overall communication improved over the course of the semester.

The peer mentor's responses to the survey indicated she would recommend learning the LAFF strategy to other peer mentors, that she felt it was effective in gathering information and facilitating clear communication, and that she felt it was effective in helping her assist the peer mentee in addressing his concern. The peer mentor's responses also indicated she felt the LAFF

strategy was valuable due to the emphasis on empathy. In addition, the peer mentor reported that she perceived the LAFF strategy improved the peer mentee's comfort, but not necessarily her own when discussing challenging situations. The peer mentor also expressed feeling that the disadvantages of the LAFF strategy were the difficulty remembering all the steps, and limitation of usefulness with familiar communication partners. The peer mentor expressed her impression that the LAFF strategy was awkward and "felt forced" when practicing with friends in the instructional presentation.

Discussion

There is little research in the field of speech language pathology investigating the effectiveness of teaching listening and communication strategies to pre-service SLP students. Nor is there evidence of how using a listening and communication strategy may affect the nature of interactions between SLPs and their clients. The current study addresses this gap in the research through the training of undergraduate pre-service SLP and education professionals in the evidence-based active listening strategy, LAFF. Based on the results of the quantitative data, the overall efficacy of the training and application of the LAFF strategy for communication between undergraduate pre-service SLP mentors and their college-age peer mentees is inconclusive.

There were some areas of increased strategy use between baseline and the post-intervention sessions, but the gains were modest and not universal. The small gains suggested potential improvement in time spent listening and gathering information, based on equalized turns and turn lengths in post observational study. However, overall, there were no significant improvements in use of active-listening skills or overall communication patterns or efficacy. This could be due to the small sample size, one dyad, or any number of other factors inherent in

the research design (e.g., length of instructional session, number of instructional sessions, format of the instructional session).

Using the eight-step strategy instruction suggested by Kent-Walsh and McNaughton (2005) results in instruction time that totaled 60 minutes. This instruction included description and modeling of each step in the LAFF strategy, and practice between the pre-professional students in a large group format during a regular class session of a required course.

In terms of the social validity measures, both the peer mentor, who was aware of the skills included in the LAFF strategy, and the peer mentee, who was unaware of the skills in the strategy, reported skills included within the strategy as perceptually useful. The peer mentor expressed that the *Listen and empathize* step was most valuable, and that the strategy overall improved her perception of her peer mentee's comfort in communicating with her. The peer mentee expressed, through his survey responses, benefits from the last three steps of the strategy. Together, all steps included in the LAFF strategy were perceived to be helpful or to have positive qualities by either the peer mentor, the peer mentee, or both. The results of this study support the social validity of the LAFF strategy when used between pre-service professionals and individuals with communication disorders. However, the efficacy of this mode of instruction and application of the LAFF strategy is undetermined.

Future research should explore the possibility of expanding the instructional process to a multi-week period, including reflective journaling by instructed participants throughout the study period. The self-reflection could improve performance of participants in this generalized instructional context.

In addition, future research should be designed to overcome the limitations of the current study. The current study, due to unforeseen circumstances, was limited to investigation of one

dyad over a short period of time. Future research should be designed to take place over a longer period of time to offer the potential to more validly measure the impact of learning the LAFF strategy on communicative interactions between peer mentors and their peer mentees. This would optimize the contrast of pre- and post- measures, and provide ample time to gather larger amounts of data. Future research should also collect longer communication samples for analysis, which may require multiple baseline and post-instruction sessions.

The current study provides an initial example of real-world application of the instruction in the LAFF strategy for pre-service professionals. Although the current study provided no conclusive results, previous research in the LAFF strategy has supported the efficacy of this strategy (Thistle & McNaughton, 2015, McNaughton, Hamlin, Head-Reeves, & Schreiner, 2008). There are still promising applications of this strategy for use of communication with clients with communication impairment, but more research is needed to definitely answer this research question. Future research should also explore various modes of instruction and generalization with pre-service professionals.

Conclusion

The overall benefit of the client is always the intention of providing therapeutic services. The use of professional interpersonal and active-listening skills offer a potential of improved services for these clients, by supporting client-provider relationship, information gathering effectively, and developing a more collaborative relationship (Thistle & McNaughton, 2015., Towson, Taylor, & Tucker, 2018, MacKean, Thurston, Scott, 2005). The current study supported participant and client perception of these skills through the implementation of the LAFF strategy, while efficacy of the strategy was not yielded in any conclusive results.

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