

Preparing Teachers for Collaborative Communication: Evaluation of Instruction in an Active Listening Strategy

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Abstract: The successful inclusion of students with learning disabilities in general education classrooms requires a new emphasis on collaboration between teachers. To establish a positive collaborative environment, education professionals must demonstrate effective communication skills, including active listening. The current study describes an evaluation of instruction in an active listening strategy on the communication skills of pre-service special educators. The results showed that participants learned to make use of the targeted active listening communication skills and that the use of active listening skills was valued both by the pre-service teachers and by practicing general education teachers who observed pre- and post-instruction videos of the study participants. Results suggested implications for active listening skills based on learning strategy instruction and the communication in discipline framework.

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INTRODUCTION

Changes in education have brought new communication challenges for teachers who provide services for students with disabilities (Idol, 2006; McCray & McHatton, 2011; Villegas, 2012). While special educators traditionally taught in self-contained classrooms, students with disabilities now spend significant amounts of time included with peers who do not have disabilities (MacFarlane & Woolfson, 2013). Special and general education teachers now work together to deliver instruction for these learners (Bosma, Hessels, & Resing, 2012; Rigelman & Ruben, 2012). Pre-service special educators, therefore, need to be prepared to collaborate with their general education counterparts.

The complexity of developing collaboration between special and general educators has led it to be called a

“messy” endeavor (Adamson & Walker, 2011). In order to promote collaboration, special educators must develop communication skills (Brownell et al., 2006; Gallagher, Vail, & Monda-Amaya, 2008), described as equal in importance to special educators’ knowledge of remedial strategies (Knackendoffel, 2005).

One important communication skill leading to successful collaboration is active listening (Dettmer et al., 2008; Idol, 2006; Pugach & Johnson, 2002). Active listening includes three critical elements: (a) the listener conveys unconditional attention; (b) the listener paraphrases content and feelings in the speaker’s message; and (c) the listener asks questions to encourage the speaker to provide additional information on feelings or beliefs (Weger, Castle, and Emmett, 2010). While active listening will not address the entire collaboration process between teachers, it can help special educators

gather information and communicate respect for their colleagues, which should improve their ability to develop successful collaboration overall (Dettmer et al., 2008).

It is clear from preparation in other fields that active listening skills can be taught (e.g., nursing, Duhamel & Talbot, 2004; helpline workers, Paukert, Stagner, & Hope, 2004). Within special education teacher preparation, McNaughton, Hamlin, McCarthy, Head-Reeves, and Schreiner (2008) examined the effects of instruction in an active listening strategy—LAFF—on pre-service teachers' preparation for parent collaboration. LAFF is a first-letter mnemonic with four steps: (a) *Listen*, empathize, and communicate respect; (b) *Ask* questions and permission to take notes; (c) *Focus* on the issues; and (d) *Find* a first step. McNaughton et al. (2008) found that pre-service teachers who received instruction demonstrated statistically significant improvement in targeted active listening skills during role-plays of parent-teacher meetings. Additionally, when the videotaped role-plays were presented to a culturally diverse group of parents, parents selected post-instruction videos as providing examples of stronger teacher communication skills. At present, it is not clear whether the active listening skills valued by parents in McNaughton et al. (2008) would also be valued by general education teachers, who may view communication with special educators through a unique professional lens (McCray & McHatton, 2011; Villegas, 2012).

RESEARCH OBJECTIVES

The current study evaluated the impact of instruction in active listening skills on pre-service special educators. Specifically, this study targeted an important component of collaborative communication between special and general education teachers: gathering information about an identified concern (Dettmer et al., 2008). We used task-specific learning strategy instruction (Schumaker & Deshler, 2006) to teach active listening skills represented in the first-letter mnemonic LAFF (McNaughton et al., 2008). Steps in LAFF provided cues for positive active listening behaviors. We developed instructional content using a Communication in Discipline (CID) framework, with emphasis on enhancing communication skills (i.e., active listening) to address a discipline-specific situation (Dannels, 2001). As suggested in a CID approach, pre-service special educators learned targeted communication skills in carefully constructed, discipline-specific activities. We had three research questions. First, did participants demonstrate differences in active listening skills after LAFF instruction, as observed during

simulations of collaboration? Second, did participants value the communication skills taught through LAFF as a means of enhancing collaboration, reported through social validity questionnaires? Third, did practicing general education teachers identify the special educators demonstrating LAFF as having stronger communication skills?

METHOD

Participants and Settings

Thirty-one pre-service special education teachers enrolled in a course on “Collaboration skills for working with families and professionals” participated in this study. Twenty-nine participants were female, two male. Twenty-eight participants were Caucasian, two Asian, and one Hispanic. Using procedures stipulated by the Office for Research Protection, participants gave informed consent to allow data from their instruction to be used as part of this study. Researchers were blind to which students gave permission for data to be used until students received final grades for the class; all students agreed to participate. Instruction occurred in the classroom assigned for the course. Testing occurred in offices where each participant engaged in one-on-one collaboration simulations with a communication partner.

Ten practicing general education teachers (GET) provided information that was used to assess external social validity of LAFF. There were four females and six males, ranging in age from 29 to 57-years-old ($M = 35$). All GETs had taught for a minimum of three years and had students with disabilities in their classrooms.

Strategy Description

The independent variable was instruction in an active listening strategy, summarized in the first-letter mnemonic LAFF. Strategy steps were identified based on a review of literature on communication skills valued in helping professions generally (e.g., Bodie et al., 2012; Fontes, 2009; Levitt, 2001;) and for special educators specifically (Cramer, 2006; Dettmer et al., 2008; Kroth, Edge, & Kroth, 1997; Risko & Bromley, 2001; Turnbull et al., 2010).

The first step in the strategy – *Listen*, empathize, and communicate respect—prompted participants to attend to the stated concern of the communication partner and demonstrate listening by making an initial statement of empathy and understanding (Kroth et al., 1997). Participants were directed to communicate interest,

neither agreeing nor disagreeing with the content of the message (Turnbull et al., 2010), and to communicate respect by thanking the partner for meeting and using appropriate body language (e.g., facing the partner) and facial expressions (e.g., appropriate eye contact; Bodie et al., 2012). This step was included to enable the listener to focus on the challenge as perceived by the speaker, and encourage the speaker to provide information (Levitt, 2001). Also, empathy statements may help to build rapport, important in establishing a collaborative relationship (Dettmer et al., 2008).

The second step in the strategy – *Ask* questions and permission to take notes—prompted participants to investigate and document the partner’s concern (Bodie et al., 2012; Dettmer et al., 2008; Pugach & Johnson, 2002). The use of open-ended questions encouraged participants to gather a wide range of information. Asking permission to take notes communicated the importance that participants placed in partners’ words and opinions, while also facilitating the next step in the strategy (Fontes, 2009;).

The third step – *Focus* on the problem—prompted participants to summarize the problem as expressed by the partner (Bodie et al., 2012). Participants announced that they were shifting from asking questions to confirming understanding (e.g., “I want to make sure I fully understand your concerns; can we go over the notes I have taken?”), then referred to notes to review the conversation. After reviewing, participants asked for additions or clarifications. The goal was to ensure that both parties shared understanding of the initial concern before moving ahead (Dettmer et al., 2008).

The fourth step in the strategy – *Find* a first step—prompted participants to determine a follow-up activity. The LAFF strategy is meant to help establish a collaborative relationship, and focuses primarily on gathering information, typically the initial stage in the collaboration process (Dettmer et al., 2008). An appropriate “first step” might include, for example, observing in the classroom or contacting another education professional (e.g., a speech language pathologist) for additional information. Unless the described problem involved a situation in which a child was at risk of doing harm to him/herself or others, participants were instructed to carefully consider the need to gather more information before starting to generate possible solutions (Risko & Bromley, 2001).

Test Scenarios

Each participant completed three videotaped collaboration scenarios. Participants were assigned a

different scenario for each interaction, counterbalanced so that each scenario was used for one-third of the participants during the Pretest, Advanced Practice, and Posttest simulations. Scenarios depicted typical problems experienced by general education teachers working with students with learning disabilities in middle school classes (e.g., student doesn’t complete work, student disrupts class, student doesn’t appear engaged). Four experienced teachers (two special educators and two general education teachers) reviewed all scenarios independently and reported that scenarios depicted plausible problems and language used by general education teachers when meeting with special educators.

In the collaboration simulations, participants spoke with one of three communication partners playing the role of general education teachers, and these partners were given detailed information on the problem in the scenario. The three women who played the role of the general education teacher were all experienced teachers. Conversations with communication partners were counterbalanced so that each participant spoke with a different communication partner, using a different scenario during Pretest, Advanced Practice, and Posttest. Prior to the study, communication partners completed a one-hour training session in which they observed examples and non-examples of target communication partner behaviors (e.g., delivering the scripted introduction line, responding only to the questions asked), practiced each of the three scenarios, and received feedback on their performance. Each communication partner demonstrated 100% of target communication partner behaviors on a final check at the end of training.

INSTRUCTIONAL PROCEDURES

The primary instructor for participants’ course on collaboration taught LAFF using an instructional sequence adapted from Schumaker and Deshler (2006) that included stages designed to help students acquire knowledge, motivation, and practice related to using a strategy on their own. Instruction occurred during normally scheduled time allotted for the course during two regular class periods (a total of 150 minutes). Collaboration simulations (i.e., Pretest, Advanced Practice, Posttest) were held outside of scheduled class time and were approximately 10 minutes in length.

Pretest. Prior to learning LAFF, participants completed the Pretest in which they were told they would be involved in a collaboration simulation where they would act as the special educator, and the communication partner would

act as a general education teacher. Immediately before each simulation, participants were given a paragraph of general background information. They had two minutes to review the scenario before video recording began and could refer to the scenario throughout the simulation.

At the start of the simulation, communication partners delivered a scripted introductory phrase (e.g., “I am concerned that Jeremy is not learning in my class and is getting in the way of other students’ learning as well. He is always fooling around.”). The partners answered questions asked by participants, and ended the session by stating, “If you think that will work, let’s give it a try” after the participant offered a first step in a solution. Participants then completed the Participant Questionnaire before leaving the room. The Pretest experience was analyzed to assess participants’ active listening skills prior to instruction, but also provided a realistic simulation of teacher-to-teacher communication in order to encourage interest in learning the strategy.

Model the strategy. Following the Pretest, the instructor taught the LAFF strategy. He first showed videos of a pre-service teacher participating in the collaboration simulations from a prior semester and asked participants to identify positive and negative communication behaviors as well as share opinions about how both the “special education teacher” and the partner might feel in the observed exchanges. Participants discussed their own performance during the Pretest, and their perceptions of their communication skills during the collaboration simulation. The instructor then explained that use of LAFF would help them be successful in collaborating with general education teachers.

To describe each LAFF step, the instructor gave a definition and example, and then modeled appropriate comments. Participants described how they might implement the strategy step (e.g., “What are some other questions that could be asked?”) and to talk about the impact of strategy steps (e.g., “How do you think the communication partner feels when they hear the summary read back?”). Non-example comments (i.e., inappropriate) were also presented and discussed. During the LAFF description, the instructor paid special attention to the A step, describing possible questions that would help gather information. Questions were presented in the mnemonic What, When, Who – 4, 3, 2. *What* referred to four questions defining what the problem looked like (i.e., frequency, location, objective description, pervasiveness). *When* referred to three questions identifying situations that occurred before, during, and after the problem. *Who* referred to two questions dealing with people impacted by the problem.

Finally, participants verbally rehearsed LAFF steps to conclude the first day of instruction (total time = 75 minutes).

Controlled practice. On the second day of classroom instruction, the instructor reviewed LAFF and answered questions about the strategy. The majority of class time was spent practicing LAFF using “problem” scenarios comparable in structure and level of detail to those used in the tests (i.e., Pretest, Posttest), but with no content overlap. During each role-play with fellow students, participants worked in groups of three: one participant acted as a *special educator*, one as the *general education teacher*, and one as the *observer*, who recorded questions asked and steps completed. Over the course of three rounds of practice, participants took a different role each time. Participants were encouraged to work from memory, but could also refer to a checklist of strategy steps. After each rotation, the class discussed examples of questions asked within each group, and the impact of LAFF behaviors on the conversation.

Advanced practice. Within three days of the second class (i.e., controlled practice), participants completed the Advanced Practice (i.e., a second videotaped collaboration simulation) with one of the three communication partners. Procedures were the same as those during Pretest; each participant encountered a new scenario with a new partner. These collaboration simulations were designed to establish the opportunity for formative assessment of participants’ acquisition of targeted active listening skills.

Reflective essay. Individual Pretest and Advanced Practice videos were converted to audio files and uploaded to the university’s course management system. Participants identified the presence of LAFF steps in their own performance and wrote a short reflective essay (i.e., approximately 1,000 words) in which they identified comments or questions directly related to LAFF steps and discussed implications of the presence or absence of the steps. When improvement was needed, participants discussed what they would do differently. These reflective essays were submitted to the instructor, who also listened to each audio file, corroborated participants’ identification of strategy components, and provided feedback on strategy usage.

Posttest. After receiving essay feedback, participants completed a final videotaped collaboration simulation as the Posttest used in the evaluation of LAFF instruction. As in previous tests, they had a new scenario and new communication partner. Participants again completed the Participant Questionnaire before leaving the room.

DESIGN AND ANALYSIS

Case study. Our goal was to evaluate the impact of LAFF strategy instruction on a single group of pre-service special education teachers' active listening skills during collaborative communication with general education teachers; hence, we used a case study methodology. A case study allows for an in-depth understanding (Yin, 2012). While a primary limitation of case study is that it does not provide data that are generalizable, we chose this methodology because our goal was to evaluate the impact of this instructional unit on this group of participants in order to inform future teaching. Multiple data sources (i.e., strategy implementation scores, social validity questionnaires, external social validity ratings) were examined to describe the impact of instruction.

Strategy implementation. The primary dependent variable was the total score on a rubric of strategy implementation, measured before and after instruction (i.e., Pretest and Posttest; the simulation completed as Advanced Practice was considered a formative assessment within the instructional unit, not a summative assessment of the unit's effects). Each step in LAFF was evaluated, and scores aggregated for a highest possible of 17. For the Ask-step, each question a participant asked was matched with information associated with the nine types of questions in the What, Where, Who – 4, 3, 2 mnemonic, as well as a separate question of asking permission to take notes. Thus, participants could receive credit for asking ten different types of questions, which in turn were scored on the rubric as a percentage of information gathered. Scorers completed two hours of calibration training before scoring any sessions in the current study, and scored sessions using the videos.

Social validity. Information on the social validity of LAFF was assessed in two ways. First, participants completed Participant Questionnaires about collaborating with other teachers prior to and following instruction. Second, current GETs viewed videos of Pretest and Posttest collaboration simulations and responded to about the collaboration skills demonstrated by participants.

The Participant Questionnaire included statements about participants' perceived skill and comfort engaging in professional communication (see Table 1). They used a 5-point Likert-type scale (i.e., *strongly disagree* to *strongly agree*) to respond, and could write comments related to each prompt. When completed after the Posttest simulation, participants also evaluated their experience learning LAFF using the same Likert-type scale and were asked an open-ended question (e.g.,

"The most valuable part of the LAFF strategy was"). We report descriptive statistics of results from the questionnaire before and after the instruction, and share sample comments.

To gain insight into practicing teachers' perceptions of LAFF skills, 10 current GETs observed samples of six videotaped Pretest and Posttest collaboration simulations (i.e., the Pretest and Posttest for participants). To control for order effects, researchers randomized the pre/post order for each pair of videotaped simulations shown. After viewing, GETs were asked to identify the collaboration simulation in which the special educator "demonstrated stronger communication skills." Second, for the collaboration simulation described as stronger, GETs were asked to identify important communication skills demonstrated by the special educator.

PROCEDURAL INTEGRITY AND AGREEMENT

A classroom observer assessed procedural integrity during the two class sessions through the use of a checklist of instructional components. Each component was checked off as it occurred. Procedural integrity was 100%. Three observers scored the recorded collaboration simulations and 25.8% (N=24) of the individual simulations were scored by two observers to assess agreement using the point-by-point method (Kazdin, 1982). Agreement was scored when two observers gave a step of LAFF the same score on the rubric; therefore there were four opportunities for agreement on each rubric for each collaboration simulation. Overall agreement was 91.2% (range 75-100%).

RESULTS

There were three questions of interest in this study. First, did participants demonstrate differences in their active listening skills after LAFF instruction, as observed during simulations of collaboration with general education teachers of students with learning disabilities? Second, did participants value that the skills taught through LAFF? Third, did practicing general education teachers identify the special educators demonstrating LAFF as having stronger communication skills?

STRATEGY IMPLEMENTATION

Statistical Analysis. Because our questions targeted overall effects of the LAFF strategy, mean differences on the Pretest and Posttest measures were used to

assess instruction. We used the Wilcoxon Signed-Rank Test (Glass & Hopkins, 2008) to conduct comparisons of performance on the Pretest and Posttest measures because data were not normally distributed. The Wilcoxon signed-rank test showed a two tailed statistically significant difference between Pretest and Posttest scores, ($Z=-4.911$, $p < .000$). Mean scores improved from Pretest, 3.6 ($SD = .96$) to Posttest, 15.8 ($SD = 1.22$), indicating that participants implemented LAFF at high levels of proficiency after instruction (the maximum possible score was 17).

SOCIAL VALIDITY

Participants. To examine the impact of LAFF instruction on the pre-service special educators' comfort with professional collaboration, Pretest and Posttest Questionnaires were compared. Table 1 shows statements to which participants responded and mean rankings. Results indicated that participants felt more prepared and less worried about talking to general education teachers about student problems. Similarly, participants felt more prepared to talk with parents after LAFF instruction, even though all LAFF instructional activities focused on the use of the strategy with general education teachers. Finally, participants reported that learning LAFF was a good use of their time and that they

would recommend that other pre-service teachers learn the LAFF strategy.

In response to the open-ended question about the most valuable part of LAFF instruction, 30 of the 31 participants wrote comments. For example, one participant wrote, "Providing some structure to an otherwise stressful and unpredictable situation." Another candidate wrote, "Pointing out these ways to communicate seemed obvious, but they are quite necessary!"

Teachers. Ten experienced GETs viewed pairs of collaboration simulation videos (i.e., Pretest, Posttest) from the study. All GETs selected Posttests as exhibiting stronger communication skills. In response to the open-ended question about important communication behaviors exhibited in the stronger video, the three top behaviors noted were: asking questions (90%), discussing next steps (80%), and looking interested (60%).

DISCUSSION

When teachers communicate effectively and work collaboratively, they are better able to meet the needs of all students (Rigelman & Ruben, 2012). While many have called for organized instruction in communication skills for special and general education teachers (e.g.,

Table 1
Mean Likert-type ratings (standard deviations) on participant questionnaire^a

	Pretest	Posttest
1. I feel prepared to talk to general education teachers about student problems.	2.76 (.92)	4.14 (.76)
2. I am worried about talking to general education teachers about student problems.	2.91 (1.02)	2.21 (.94)
3. Talking with general education teachers is useful.	2.82 (1.02)	2.91 (1.06)
4. I expect I will enjoy talking with general education teachers about student problems.	3.62 (.60)	3.70 (.58)
5. Talking with general education teachers helps in the development of appropriate solutions.	4.75 (.43)	4.74 (.45)
6. If I talk with general education teachers, they may think I am not competent.	2.23 (.78)	2.05 (.85)
7. I feel prepared to talk to parents about their children.	2.92 (1.08)	3.5 (.78)
8. Learning the LAFF strategy was a good use of my time. ^b	--	4.83 (.38)
9. I would recommend that other pre-service teachers learn the LAFF strategy. ^b	--	4.83 (.38)

^a Likert-type scale scores: 1 = strongly disagree, 2 = disagree, 3 = Neither agree or disagree, 4 = agree, 5 = strongly agree

^b Statements 8 and 9 did not appear on the pretest participant questionnaire.

Cramer, 2006; McHatton & Daniel, 2008; Pugach & Johnson, 2002), few studies have examined systematic approaches to teaching the specific communication skills that support collaboration (Lasky, 2000). This study evaluated task-specific strategy instruction for active listening skills, and assessed the social validity of this instruction from the perspective of both pre-service and practicing teachers.

Results indicated observable changes in participants' listening behaviors. Participants did not demonstrate key active listening skills on the Pretest, but did present these skills after instruction in LAFF. All participants' scores increased between Pretest and Posttest. Additionally, pre-service teachers who participated in this study reported that they felt more confident in their ability to talk to general education colleagues after LAFF instruction. Experienced teachers who viewed videos of participants recognized the impact of LAFF instruction; all GETs identified Posttest collaboration simulations as showing stronger communication skills. Lisper and Rautalinko (1996) reported that training packages targeting active listening skills have not always resulted in changes that were recognized by naïve communication partners. Results suggested that LAFF changed participants' skills in ways that naïve observers recognized and valued.

LIMITATIONS AND FUTURE DIRECTIONS

While participants learned valuable skills for collaboration through LAFF, results should be interpreted in light of the study's limitations. First and foremost, this evaluation reports a case study and lacks the empirical factors necessary to suggest that results would be generalizable. Nevertheless, results indicate that for these students, the instructional unit made a valuable impact on their communication skills, one that was observable not only by their instructor, but also by professionals in the field.

Another limitation stems from the fact that we assessed the impact of instruction using simulations. Ideally a study of pre-service teacher instruction would include practice and instructor feedback with the target skill in a real life setting (Scheeler, 2008) – that is, interactions with practicing general education teachers discussing actual problems in schools. However, the teacher-to-teacher interactions targeted in this study would be difficult to plan for, observe, and measure in real world environments. While these conversations occur in schools, they typically are informal interactions that occur on an impromptu basis (e.g., in classrooms, hallways, or staff rooms), not formally scheduled

events (Wallace et al., 2002). Capturing conversations for research purposes introduces confidentiality and informed consent challenges – general education teachers and the students about whom they seek help may have concerns about giving consent to having interactions recorded and analyzed.

Professionals in a variety of fields, including teacher education (Dotger, Dotger, & Maher, 2010; Dotger & Smith, 2009), medical education (Grant & Marriage, 2012), and nursing education (Landeen & Jefferies, 2008) have provided evidence that simulation-based learning and assessment is a viable alternative to direct observation of clinical practice for skills that are not easily anticipated or where concerns about confidentiality exist (Dotger et al., 2010; Small et al., 1999). In the present study, generalization was promoted by providing multiple opportunities to practice targeted skills, using situations drawn from professional practice for the simulation and role-play activities, and delivering individualized feedback on reflective essays (Ball & Forzani, 2009; Grossman & Salas, 2011; Scheeler, 2008). The collaboration simulations captured three essential elements of the target environment: (a) communication partners were experienced education professionals with multiple years of classroom teaching experience, (b) case problems were reviewed by experienced teachers and assessed as “authentic”, and (c) conversation settings were in small offices that resembled the school environment. We made the decision to use well-organized simulations in order to scaffold learning experience for pre-service teachers in a way that might be delivered in any university-based teacher-training program.

SUMMARY

While there are frequent calls for pre-service coursework to address collaboration skills for both special and general education teachers (e.g., McHatton & Daniel, 2008), few studies have examined systematic approaches to teaching the communication skills needed for successful collaboration. As is suggested within a CID framework (Dannels, 2001), LAFF instruction focused on skills identified as important for special educators (demonstrating active listening skills), employed a common communication event (meeting with a general education teacher to discuss the progress of a student with a disabilities), and was assessed with a variety of measures to evaluate its impact. This study provides evidence that the use strategy instruction and carefully implemented simulations can produce observable changes in valued communication skills for pre-service teachers.

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