Intergenerational Communication Effectiveness Training in a Preschool Classroom

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Abstract

As part of a UWW outreach grant, the Bridging the Intergenerational Gap Program was formed to create opportunities for older adults to interact with young children during shared activities. As a part of the larger project, the current study evaluated whether a mini lesson (activities and simulations) with 4 year olds reduced the number of communication breakdowns that occurred between older adults and young children and improved their use of repair strategies to strengthen communication. In the first phase, a small group discussion with the older adults catalogued challenges with intergenerational communication and identified any strategies currently utilized to prevent or repair communication breakdowns. The breakdowns and strategies from this discussion served as a guide for the communication training lesson plan. The training culminated in a twenty-minute lesson with the young children and the study team reviewing breakdowns and strategies through age appropriate activities. The older adults joined the lesson at the end for an additional ten minutes to reinforce the learning that the study team facilitated. Following the training, the older adults and young children split into their intergenerational activity groups. The older adults and young children were observed in the preschool classroom during their intergenerational activities before and after the training. During the observations, the study team documented the type and number of breakdowns and repair strategies used. After each observed intergenerational activity, the older adults completed a survey evaluating their communication experience and any breakdowns and repairs that they noticed the children using. After the lesson was implemented, the number of communication breakdowns decreased within both study groups suggesting that addressing communication barriers through interactive instruction increased communication effectiveness, reduced frustration, and facilitated stronger relationships. Results from the current study have the potential to inform future design of intergenerational programming.

Keywords: Intergenerational programming, Communication training, Education

1. Introduction

Adults over 62 years of age make up just over 16% of the US population[1]. These older adults have a desire to maintain high levels of community engagement. However, roughly 45% of adults in this age group experience hearing loss as part of the normal aging process[2]. Hearing loss may prevent active social engagement. Communicating with young children may be particularly difficult for older adults with age related hearing loss. Age related hearing loss typically results in high frequency hearing loss and pre-pubescent children have high frequency acoustical components in their voice compared to adults[3]. The issue of hearing and communicating across the generations becomes important when considering the role grandparents play in grandchild care and through community outreach or volunteer programs with young children. Intergenerational programming intends to "increase cooperation, interaction and exchange between people of different generations" and allow "the sharing of talents and resources … that benefit both the

individual and their community. [4]" Summative reports regarding intergenerational programs revealed that both older and younger adults reported increased understanding of the other generation, positively changed attitudes, and increased skills and engagement[5]. Given the benefits of intergenerational programming, faculty, staff, and students at the University of Wisconsin Whitewater designed and operated a program in collaboration with a 4K classroom and a senior center. Ongoing data analysis suggested that older adults' perceived level of happiness improved and childrens' perceptions of older adults became more positive. University students observed the intergenerational program and noted that to continue to improve the intergenerational experience, factors such as age related hearing loss and communication break downs needed to be addressed. Preschool classrooms measure noise levels from 40-90 dB resulting in a difficult listening situation for both generations[6]. In order to continue to bridge the intergenerational gap, the current project focused on the barriers that might interfere with successful communication between these generations through targeted instruction. The current study evaluated whether a mini lesson (activities and simulations) with 3-4 year-old children reduced the number of communication breakdowns and improved the use of repair strategies to strengthen intergenerational communication. The project included three phases: (1) identify common communication breakdowns and repair strategies experienced by older adults, (2) create a short lesson on hearing loss, communication breakdowns, and repair strategies appropriate for 3-4 year olds, and (3) evaluate the effectiveness of the lesson in generalizing to intergenerational conversations.

Four research questions were addressed. (1) Would training reduce the number of communication breakdowns in the activities following the training compared to the interactions pre-training? (2) Would implementation of communication repair strategies increase post training? (3) Would older adults report higher levels of communication satisfaction post training? (4) Does the degree of hearing loss in the adults correlate with ratings of communication satisfaction post training?

2. Methods

2.1 Participants

The participants included three older adult residents from a senior center and children (3-4 years old) enrolled in the 4K program.

2.2 Baseline For Communication Breakdown

The student investigators met with the participating older adults at the senior center. During the small group discussion, the student investigators compiled the older adults' experiences and stories regarding current challenges with intergenerational communication and identified strategies utilized to prevent or repair communication breakdowns. The information from this meeting assisted in designing simulations and activities for the children. The older adults completed the communication effectiveness survey which included seven Likert scale questions (scale from 1-5) and two open ended questions. The survey was designed to examine satisfaction regarding communication and interactions with the 4k children and identify existing communication breakdowns and repairs. Following the small group discussion, un-aided pure tone air conduction thresholds were collected using a portable audiometer. During the next intergenerational session, the student investigators observed and audio-recorded the adult-child interactions. Notes on the number of communication breakdowns and the types of repair strategies that were utilized by the older adults and the children were compiled and later analyzed as baseline communication prior to training.

2.3 Mini Training Session

Based on the adult group discussion, the study team designed a 30-minute lesson for the 4K students. The introduction activity defined communication breakdowns and elicited children's examples. The second activity created an opportunity for understanding of age related hearing loss through a hearing loss simulation. Children were paired and given supraural earmuffs. The partner wearing the earmuffs listened while the partner without the earmuffs explained a favorite movie. Following the simulation, the study team led a discussion of challenges and then introduced the concept of repair strategies. Children were prompted to give examples of repair strategies. In the next activity the study team taught the children four different repair strategies (speaking loud and clear, getting attention/eye contact, moving closer, taking turns) through both verbal and kinetic instruction. Children demonstrated the kinetic gesture given the verbal cue for each repair strategy, see figure 1.
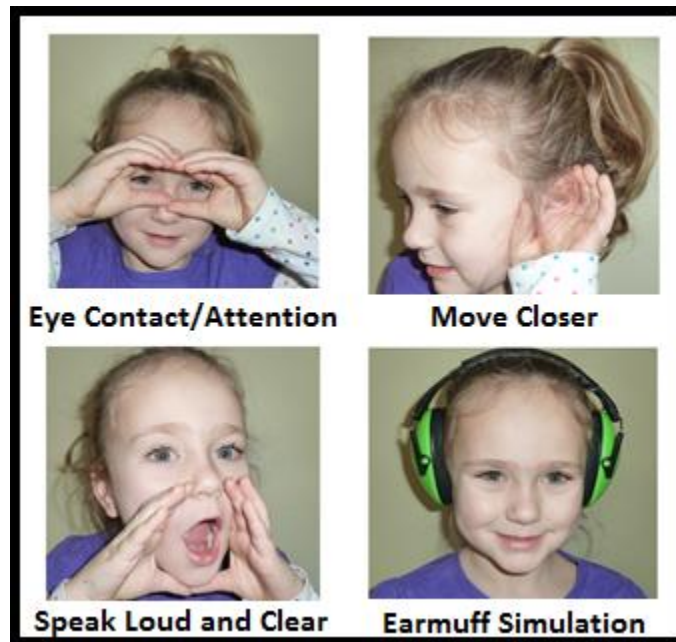
Figure 1. Examples of kinesthetic gestures for repair strategies and hearing loss simulation
* Personal photo taken by the faculty mentor. Permission of subject and photographer were obtained for inclusion in this article.

The final activity provided an opportunity for students to simulate a difficult listening situation and practice the repair strategies. Children were paired and instructed to have a conversation about a favorite food. The study team played loud music in the background. Children were asked to repeat or report the food their partner liked. Children were encouraged to use the repair strategies to help them accomplish the conversational task. The study team ended with a brief review of the strategies. The older adults were present for the last ten minutes of the training session. After the lesson.

2.4 Post Training Observations

The study team observed the adult-child interactions and recorded the number of communication breakdowns and types of repair strategies utilized in the 4K classroom during the intergeneration sessions. The children were split into three groups, one group for each older adult leader. Each group engaged in an activity lead by the older adults. The activities included baking, sewing, creating jewelry, reading and completing puzzles. Two research team members spent five minutes independently observing each group. Communication breakdowns and repairs were recorded and separated as adult or child initiated. The independent observations were compiled from the two research team members. The observations were completed two weeks prior to training, immediately after training, and one week after training.

3. Results

The training did not have a predicted effect on the number of communication repair strategies used among the older adults across the three observation periods. Before the training, the adults utilized communication strategies a total of 42 times. Immediately after the lesson, the adults used strategies 25 times, and 41 times one week after the training. There was a slight decreasing trend in the number of communication breakdowns across the three observation periods with 19, 11, and 7 breakdowns respectively, see figure 2.
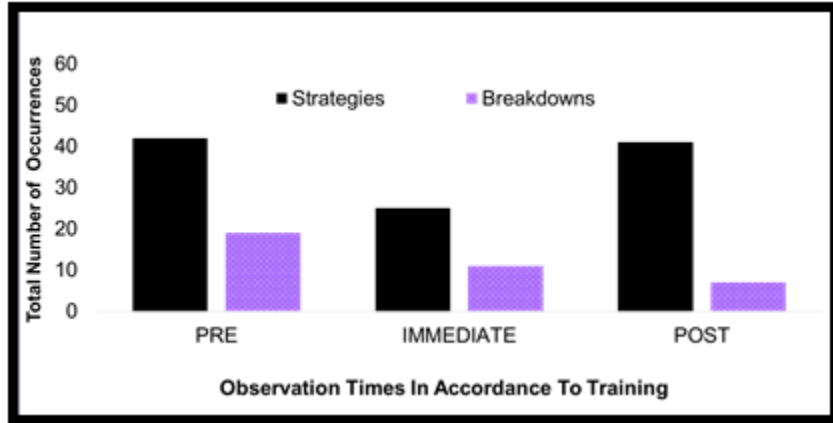
Figure 2. Total observations of adult communication strategies and breakdowns across observation periods

Observational data from the children revealed the expected pattern of communication across the three observational time points. The young children demonstrated fewer breakdowns after training and an increase in the number of repair strategies implemented. Children increased from 48 repairs pre training to 55 and 52 repairs immediately after and one week following training. The breakdowns decreased from 57 pre training to 35 and 32 immediately after and one week following training, see figure 3.
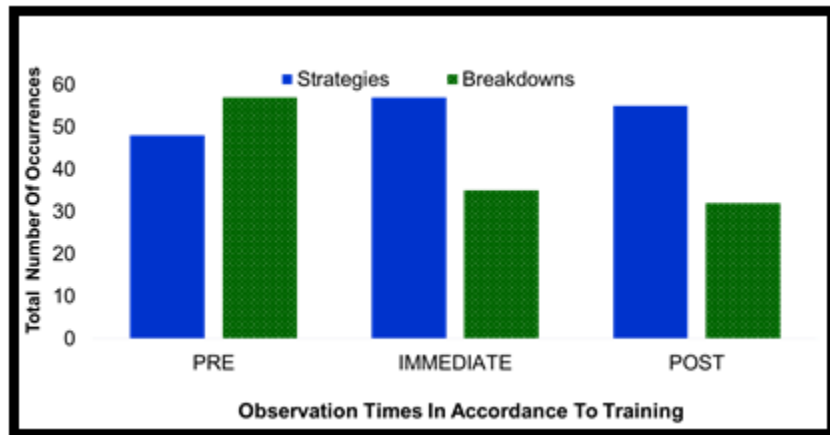

Figure 3. Total observations of child communication strategies and breakdowns across observation periods

In addition to differences in the total number of communication strategies used across each age group and observational time point, differences in the type of communication strategies were observed. Adults maintained four of the same strategies pre and post training (eye contact, position body closer, speak louder, repeat themselves). The children maintained three of the same top five strategies from pre and post training (turn taking, make eye contact, and repeat themselves). In the post training session all four of the strategies included in the training session were in the top five strategies used, see figure 4.
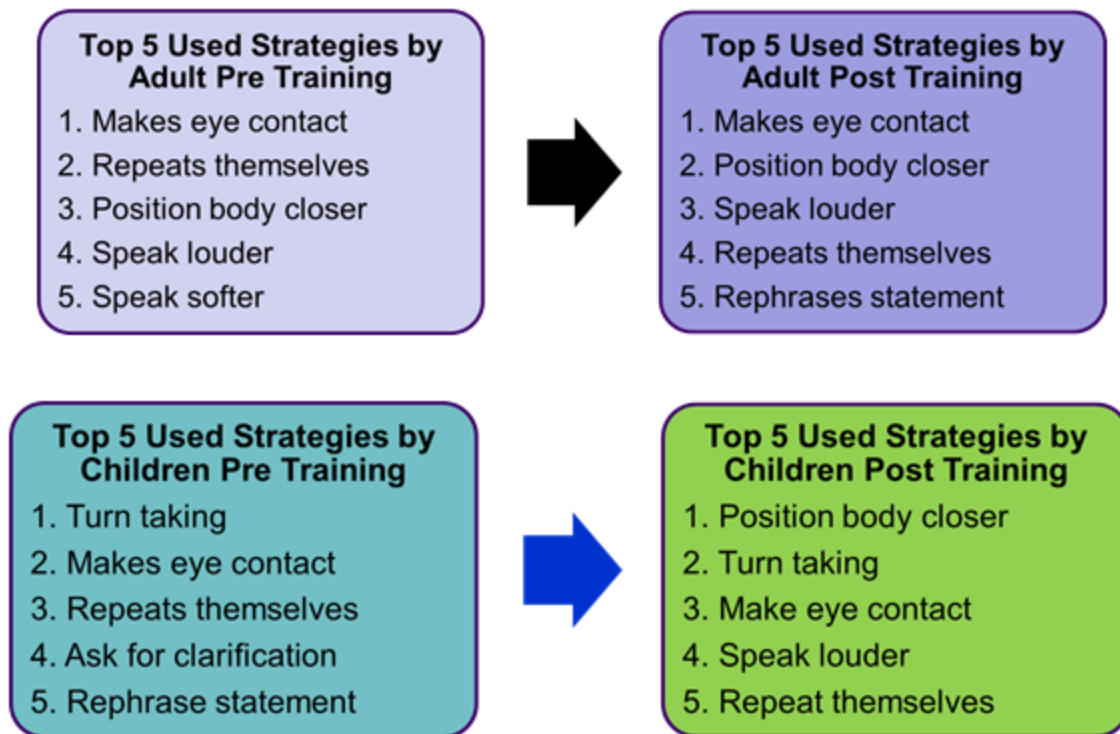
Figure 4. Comparison of communication strategies used pre and post training among adults and children

Difference scores were calculated between the satisfaction ratings on the 5 point Likert scale survey question across the three observations. The satisfaction rating for the pre-training condition was subtracted from the immediate post training satisfaction rating (Immed-Pre Satisfaction Diff. Score). One older adult increased satisfaction 2 points on the Likert scale, while the other two remained the same. The satisfaction rating for the pre-training condition was also subtracted from the 1-week post training rating (Post-Pre Satisfaction Diff. Score). Two older adults improved their satisfaction one point on the Likert scale and one older adult decreased in satisfaction by a point on the Likert scale, see table 1.

Table 1. Satisfaction rating of communication with the children compared with hearing thresholds of the older adults

ID	Immed-Pre Satisfaction Diff. Score	Post-Pre Satisfaction Diff. Score	Pure Tone Average Right (dB HL)	Pure Tone Average Left (dB HL)
OD1	2	1	48.3	51.6
OD2	0	-1	46.6	45.0
OD3	0	1	36.6	36.6

There was no direct correlation with satisfaction with intergenerational communication and hearing loss. Better hearing thresholds were denoted by pure tone averages with lower integer values. Pure tone averages we calculated by averaging un-aided air conduction thresholds at 500, 1000, and 2000 Hz separately for the left and right ear. Two adult's yielded slightly higher satisfaction ratings after the training was implemented and they were the older adults with the best and worst hearing thresholds, see table 1.

4. Discussion

The greatest change from pre to post training was the decrease in communication breakdowns for both age groups. There were small increases in the use of communication strategies implemented by the children. It is suspected that because the older adults did not actively participate in the communication training lesson with the children due to scheduling conflicts, the older adults had more varied implementation of communication strategies. Post training, children implemented the strategies taught in the mini lesson (position body closer, eye contact, speaking louder, turn taking). Due to limitations in sample size, strong correlations with satisfaction with intergenerational communication and hearing loss could not be calculated. Overall the communication training was successful in reducing communication breakdowns. The training also strengthened the childrens' use of repair strategies. With the current study design it wasn't possible to completely separate the effects of the training from the effects of multiple exposures to intergenerational interactions. Therefore, it is likely that the combination of training and exposure/comfort between the age groups is likely to support strong intergenerational communication. Data suggests that communication training improved communication fluency which has the potential to strengthen intergenerational relationships and increase the benefits of intergenerational programs.

5. References

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