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Enhancing Communication Initiation of Students with Moderate to Severe Disabilities Through General Education Peer Interaction

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Enhancing Communication Initiation of Students with Moderate to Severe Disabilities

Through General Education Peer Interaction

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Action Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of
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Enhancing Communication Initiation of Students with Moderate to Severe Disabilities

Through General Education Peer Interaction

By: Veronica Lopez

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Abstract

Communication is an important aspect to social interactions and inclusion. Oftentimes, general education students are paired with students with special needs for social interaction. This study investigates if the use of physical education (P.E.) buddies and communication training impact the rate of communication initiation of students with moderate to severe intellectual disabilities. Three high school students with moderate to severe disabilities were trained to initiate communication with the P.E. buddy through a lesson that teaches potential conversation starters. Such conversations starters were, "Hello," "How are you?" "What are we doing today?" In addition to verbal communication, the participants had access to an augmentative and alternative communication device to initiate conversation. Results indicated a functional relation was demonstrated, but not replicated. However, implementing interventions that increase communication and interactions among students with special needs and their typically developing peers are important and should be studied in the future.

Keywords: communication, initiation, P.E. buddies

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Enhancing Communication Initiation of Students with Moderate to Severe Disabilities
Through General Education Peer Interaction

Literature Review

Communication plays a vital role in everyone's life, it is a two-way process in which participants exchange information, ideas, feelings, and opinions. It is vitally important, as it is one of the most basic elements of human functioning, and is the cornerstone of strong, healthy interpersonal relationships (Erozkan, 2013). Interpersonal communication involves the development of communication skills, and without effective communication skills, a message can turn into a misunderstanding, or frustration.

Communication starts developing in the first three years of life, when the brain is developing and maturing. According to Whitmore, Romski and Sevcik (2014), these early years are the intensive period for acquiring speech and language skills. Infants and young children's brain's are able to absorb language in their environment that is rich with sounds, sights, and consistent exposure to the speech and language of others. Although there are milestones for typical language development, children can vary slightly in their development of speech and language skills. If the child fluctuates too much from the milestones of language and speech development, educational professionals can assess the student if their delay is caused by a disability, hearing loss, or speech and language disorder (National Institute of Health, 2014).

In addition, De Bortoli, Arthur-Kelly, Mathisen, and Balandin (2014) stated that children with moderate to severe disabilities often show delays in their language acquisition and they have difficulty engaging in communicative interactions. These delays are the result of their disability. Different disabilities, such as, intellectual disability, Down syndrome, and autism spectrum disorder (ASD), attribute to distinctive

deficits in the development of language and speech (Van Der Schuit, Segers, Van

Balkom, Stoep, & Verhoeven, 2010). For example, children with Down syndrome show

specific weaknesses in the areas of speech production and intelligibility that may be due

to their short term memory. This short-term memory ultimately affects their ability to

detect and store phonetic patterns, which is important in speech and language

development (Van Der Schuit et al., 2010). Furthermore, students identified with

intellectual disabilities or autism characteristically have limited skills to interact

effectively with teachers and peers (Huges, 2011). These limited skills are due to

developmental delays that affect speech and language development. Additionally, young

children with ASD have difficulty in following another person's gaze cues with

establishing and maintaining joint attention. They also show difficulties later in their life

with pragmatic aspects of communication, which is the struggle in partaking in initiation

of communication, conversational turn taking, remaining on topic, and the use of

figurative language (Van Der Schuit et al., 2010). These differences may help to account

for difficulties children with a moderate to severe disabilities experience in social

relationships with other typical peers (Soesken, Flagg, & Schmits, 1981).

Due to the developmental delays of language, individuals with complex

communication needs often require use of assistive technologies (AT) such as

augmentative and alternative communication (AAC) systems (Stoner, Angell, and Bailey,

2010). According to Hill (2010), AAC technology is designed with the goal to optimize

communication and improve quality of life. The student's pragmatic aspect of

communication can be optimized by a voiced output communication aid (VOCA). Stoner

et al. (2010) describes this as phrases and sentences produced as electronic speech by the

device. This audible message produced is understood by a variety of communication partners such as staff and general education students. By increasing the intelligibility and clarity of the student's speech, they can express their wants and needs. Whitmore et al. (2014) states that AAC intervention and usage can facilitate language development and functional communication skills. This intervention can improve long-term social and education inclusion, independence, and increase self-determination.

The deficits of speech, language, and communication of students with moderate to severe disabilities, such as ASD, intellectual disability, and Down syndrome, is still present during middle and high school. Speech and language intervention is designed to help students in the identified areas of need. Although students with special needs are provided with individualized support through their special day class (SDC) classes and speech therapy, they often lack a communicative environment. A lacking communicative environment hinders the time and opportunity in which children is able to use their emerging speaking and listening skills. De Bortoli et al. (2014) stated that when students with disabilities are exposed to a communicative rich environment and sufficient individualized support, they could master quite complex communication skills. For example, students have been able to master conversational turn taking, the use of figurative language, and remaining on topic. Yet, many high school students with moderate to severe disabilities do not have the opportunity or skills to communicate with their general education peers as they may be secluded in SDC. Van Der Schuit et al. (2010) also states that in order to promote meaningful learning, there must be an environment in which communication is widely used. The general education setting provides an enriching communicative environment where students can practice and

witness communication. Opportunities afforded in the general education setting include interacting with general education peers by working on class work, class projects, and discussing topics together (Mu, Seigel, & Allinder, 2000).

Conversational skills are critical to the learning and development of social relationships and these skills can improve amongst students with moderate to severe disabilities through interactions with general education students (Weiner, 2005). Interactions with same age peers is a vital tool in which students with moderate to severe disabilities can practice appropriate communication skills. Whitmore et al. (2014) states that skills that they can acquire during language intervention include requesting, increased comprehension skills, conversation turn taking, initiation, and the use of figurative language. It is not surprising that effective communication amongst students with moderate to severe disabilities with their general education peers is vitally crucial to their quality of life.

There are many ways to help increase communication and socialization of students with moderate to severe disabilities. For example, Weiner (2005) demonstrated that peer requests to repair communication breakdowns from general education peers may be effective in reducing unintelligible responses of students with disabilities. This in turn helps students communicate more effectively by continuing conversation. De Bortoli et al. (2014) stated that in order for an intervention to be successful, there must be supportive interaction between teachers, paraprofessionals, speech language pathologists, and administrators. According to speech and language pathologists (SLP), communication intervention is intertwined with professional development (De Bortoli et al., 2014). The presence of coaching, training and other supports for adopting new

communication intervention is important when establishing a new intervention on communication, such as initiation. As important as intervention and training for staff is for executing a new intervention, the setting in which the intervention is applied is just as important.

Research indicates that communication can improve amongst students with moderate to severe disabilities through the interaction with general education students; interaction can be accomplished through inclusive education (Weiner, 2005).   Peer-mediated support strategies have been widely recommended to support communication amongst general education students and students with moderate to severe disabilities (Carter, Moss, Hoffman, Chung, & Sisco, 2011). Carter, Sisco and Chung (2010) emphasize that the quality and quantity of interactions students have with their peers may be among the most influential factors shaping children's wellbeing. Furthermore, Mu, Seigel, and Allinder (2000) states that inclusive education also enhances the participation and engagement of students with severe disabilities in school activities and promotes the acquisition and generalization of life skills, such as communication and motor and social skills. Given these insights, general education peer interaction in an Adapted P.E. class (APE) may have a positive impact on the interactions amongst students with moderate to severe disabilities in a High SDC program at high school level.

 Van Der Schuit et al. (2010) stated that most interventions designed to improve the language and communication of children with moderate to severe disabilities target a single aspect of a child's development in areas such as comprehension in linguistic concepts, communication skills, mastery of an AAC system, grammatical development, or spontaneous speech. Under the concept of communication skills, extant literature

suggest that typical similar-age peers are effective change agents (Weiner, 2005). Their effectiveness in being change agents are due to being enrolled in the same school, are able to interact with students with moderate to severe disabilities, and are able to be taught how to effectively communicate with students with disabilities.

In Weiner's (2010) study, general education peers were taught to request repair from students with disabilities. Request repair results in the general education peer using a phrase or question in order for the student with moderate to severe disability to clarify what he or she is trying to convey. This intervention resulted in increased repaired messages and increase of frequency of turns taken during conversation. By having general education peers request conversation repairs from students with disabilities, those students will increase their frequency of communication. The request repairs will prompt students with disabilities to restate their question or statement. Additionally, Carter and Hughes (2005) express that increasing initiation rates and self-management intervention methods may be used as an intervention for students with disabilities. These interventions will help students increase their communication frequency and awareness through joint attention. Initiation is a stepping stone to more complex communication skills.

A general education setting, such as physical education (P.E.), can also provide students with opportunities for intervention in communication initiation. Students with disabilities usually participate in inclusive education in physical education. This setting allows both groups of students to interact in a less restrictive environment as compared to a more structured and academically demanding class such as English or Math. P.E. is a least restrictive environment were students can practice communication skills in an informal and relaxed manner. APE in particular, is an environment in where students'

needs in communication can be met through hands on approaches. Such approaches include paired activities, group activities, or individualized work. It is an environment were students with special needs and general education peers can work together. Mu et al. (2000) conveyed that inclusive education has been shown to be beneficial socially and emotionally for both students with and without disabilities. Inclusive education enhances the participation and engagement of students with moderate to severe disabilities in school activities and promotes the acquisition and generalization of life skills, such as communication initiation, motor skills, and social skills.

National studies examining the peer relationships of students with moderate to severe disabilities are more restrictive (Carter, Sisco, & Chung, 2010). Unless there is a setting in which both groups can interact with one another, both groups rarely interact with one another. This rare interaction is due to the limited communication skills of students with disabilities and the lack of knowledge of general education students in interacting with students with disabilities. Carter and Hughes (2005) state that interaction with general education peers may play a role in academic, functional, and social skill development. Most students with disabilities have trouble in performing important social skills, such as engaging in reciprocal interactions and elaborating in social exchanges. Carter and Hughes (2005) convey that the complexity of peer interaction further intensifies as they enter adolescence; it is vital for students with disabilities to interact with their typical aged peers in order to obtain communication skills.

Klavina and Block (2008) also state that peer tutoring can be an integral part of interaction interventions, because peers provide natural contexts for peer behaviors. An APE class, can provide a setting in which both general education students and students

with moderate to severe disabilities can interact with one another. Utilizing peers as a natural support might facilitate interactions between students with and without disabilities while also providing individualized teaching instructions. This interaction between both group of students offers students with disabilities the opportunity to practice their communication skills such as communication initiation. Peer interaction has been successful in general education classes such as electives classes, such as Culinary, Art, Ceramics, and P.E. (Mu et al., 2000). Carter, Moss, Hoffman, Chung, and Sisco (2011) specifies that elective and related classes provide one widely available venue for addressing functional, recreation, leisure, communication, and other life skills development important for youth with severe disabilities.

Klavina and Block (2013) studied, the effects of peers in a general physical education (GPE) class, with students with severe and multiple disabilities. The researchers state that explorations or peer tutor training is related to the overall effectiveness in tutoring programs with students with moderate to severe disabilities. Results from their study indicated that peer-tutoring procedures could benefit students with severe disabilities in inclusion settings in terms of communication and interaction (Carter et al., 2011). Qi and Ha (2012) analyzed empirical studies on inclusion in physical education and found that strategies such as peer tutoring and cooperative learning could provide useful support in inclusive physical education and that students with disabilities can gain benefits from social interactions in inclusive P.E. The inclusive general education environment is considered to be fertile soil for the development of peer interactions (Klavina & Block, 2008). A general education environment that can produce development is a physical education class or an adaptive

physical education class. Both classes need to implement effective inclusive practices that involves a set of behaviors, activities, and interactions on the part of teachers and students without disabilities to provide the meaningful and successful learning environment for students with moderate to severe disabilities (Klavina & Block, 2008).

Effective instruction in inclusive settings require continuous change in the types, frequency, and quality of interactions in the teachers-students and students-students variables. There must be continuous chances for students with disabilities to interact with general education students. These chances for interactions must consist of different variables or activities. This can be accomplished by creating activities where general education students, P.E. buddies, are paired or grouped with students with moderate to severe disabilities such as rotating groups in a basketball game. The pair or group of students work on physical education activities such as playing basketball, adapted soccer, or tossing balloons with limited interaction from paraprofessionals. Both groups of students, P.E. buddies and student with disabilities, will have to work together to accomplish the task. Students with moderate to severe disabilities will have the opportunity to practice their communication skills, initiation of communication, with their general education peers.

Research Question

How does the use of Physical Education buddies and communication training impact the initiation of communication for students with moderate to severe intellectual disabilities?

Method

Setting

This study took place at a public high school in Monterey County. There are

currently 2,519 students in grades 9-12. The percentage of students who have disabilities

and attend this school is 7.8%. The study was conducted in an APE class that included 28

students.

Participants

There were three students recruited for this study from a special day class. These

participants were selected by their teacher because the participant struggled with

communication and needed to increase their initiation of communication. Each study

participant was paired with a general education peer as their P.E. buddy. The P.E.

buddies were recommended by their counselors. All participants were assigned

pseudonames to ensure confidentiality.

Andrew is a ninth grade, fourteen-year-old, male student with a diagnosis of

Orthopedic Impairment and Intellectual disability. The student is very shy and quiet in

nature. His mode of communication is using a whisper like two to three word sentence

and head nodding of Yes or No. He seldom initiates conversation and has a difficult time

continuing a conversation. However, at home parent report that Andrew carries on a full

conversation using voiced speech.

Bryan is also a ninth grade, thirteen-year-old, male student, with a diagnosis of

intellectual disability. He uses a variety of modalities for communication including

utilizing a Speech Generating Device (TouchChat), facial expressions, gestures, and body

movements. He demonstrates emergent skills in using the device to gain attention of a

person. Bryan has not had success with in expanding his skill to engage in social/reciprocal communication.

Cathi is a twelfth grade female, eighteen-year-old, student with a diagnosis of Autism. She communicates using one to two word sentences, and gestures/pointing. Cathi only interacts with familiar peers and staff and has limited socialization with unfamiliar peers. Cathi also has many behaviors such as biting, scratching, pinching, hitting, and screaming that makes it difficult for her to interact with others. During episodes of escalation, a paraprofessional or teacher must intervene to stop behaviors for the safety of the student and other students around her. De-escalation protocols require the student to be taken to a quiet place away from other students. This often hinders the opportunity for the student to interact with general education peers and practice her communication skills.

The general education students that participated in this study included three female students, without disabilities, from ninth to twelve grade. Three general education students were selected by counselors and were paired with a student with moderate to severe disabilities by the APE teacher.

Dependent Measures: Initiation of Communication

Data was collected to track the frequency in which the students with disabilities initiate communication. Initiation of conversation is defined as any verbal behavior emitted by the participant to the P.E. buddy (Weiner, 2005). The frequency count, using tally marks, was collected by the primary observer, teacher, and second observer, paraprofessional, when student with disabilities initiated conversation with their P.E. buddy. Andrew, Bryan, and Cathi were taught how to initiate conversation. The lesson plans, as stated in Appendix A and Appendix B, provided examples that the three

students could use in their ten minute session with their P.E. buddy. Participants received

a tally mark when they initiated conversation with their P.E. buddy through greeting such

as, "Hi how are you?" Data collection occurred for ten minutes during the APE class

four days a week. Their APE class was approximately fifty-five minutes in length.

Independent Variable: Physical Education Buddies
P.E. buddies are general education students who were paired with students with

disabilities. The P.E. buddies were taught strategies in order to engage and maintain

students in a conversation prior to the sessions. The students with Moderate/Severe

disabilities were taught how to initiate and maintain conversation with their P.E. buddy

after the baseline.

P.E. buddies were taught strategies on how to respond when a student with special

needs initiated communication through lesson plans as listed in Appendix A. Components

of the training included introduction to behaviors (initiating conversation), continuing

conversation strategy (e.g., "Tell me more," "What about ____?" "Can you repeat that"

"Do you mean___?") and natural social responses (Weiner, 2005) (e.g., "That's great,"

"Oh, I get it," "Awesome!") During intervention session P.E., buddy had the opportunity

to practice these skills with their target student (student with disability). The P.E. buddies

didn't receive coaching from the researcher while they worked with a SDC student. The

student with disability received a Level 0 prompt (total dependency prompting: verbal,

gestural, and physical) as stated in Basics2 Curriculum Framework for Students with

Moderate to Severe Disabilities during intervention session (San Bernardino County City

Unified School District, 2009). After baseline session the student with a disability was

given intervention using a Level 5 prompt (independent).

Design

This single case study utilized a multiple-baseline design across participants. Andrew

entered intervention first, subsequent participants entered once the previous student

showed an increase in initiations.

Procedural Fidelity

Procedural fidelity was measured for 50% of the sessions by the secondary

observer, which were my paraprofessionals. During these sessions paraprofessionals

filled out a checklist. This checklist consisted of Appendix C a checklist for intervention

steps. The procedural checklist checklist consisted of nine sequenced yes or no questions.

The number of "yes" answers were divided by the number of questions. In Andrew's,

Cathi's, and Bryan's sessions, the procedural fidelity was 100%.

Interobserver Agreement

For 50% of all sessions a second observer was present. The primary researcher

and the secondary observer independently counted the number of initiations for each

session. Interobserver agreement will calculated using point by point. That is, the total

number of agreements (initiation of communication) between the primary observer and

the second observer divided by the total agreements and disagreements of initiation

multiplied by 100%.

Andrew's IOA for baseline was 100%. Both the primary and secondary observer

were in agreement with the score of 0 initiations of communication during baseline. The

IOA during Andrew's intervention was 90%. In the nine sessions of intervention, there

was only one disagreement of data.

During Cathi's three sessions of baseline data, her IOA was 100%. Her IOA for

her intervention sessions differed for the baseline. Cathi had eight sessions in intervention

in which the secondary observer was present. By comparing the number of initiation from each observer, Cathi receive, the IOA was 75%. This low IOA was due to the participant's behaviors of scratching, pinching, biting, and screaming. During periods of escalation, data was stopped abruptly in order to attend to the participant. The participant's whining (pre-escalation indicator) could have also been misinterpreted as initiation. Bryan's IOA during baseline was 100% and during intervention it was 80%.

Social Validity

All P.E. buddies who participated in the study and implemented intervention, were asked to complete a social validity instrument at the end of the study, as stated in Appendix D. The instrument included five statements to be scored on a Likert-type scale of 1 to 5, anchored with 1 as strongly disagree and 5 as strongly agree. The instruments were completed anonymously and are only identified by grade level and gender.

The first three statements of students with moderate to severe disabilities have difficult time communicating with their peers, intervention in communication is essential for students with moderate to severe disabilities, and students with moderate to severe disabilities benefit from peer interaction in general education settings, had an average score of 5. Statement four, communication training in initiating and maintaining conversation has helped me provide my peer to initiate and maintain conversation, had an average score of 2.4, the lowest score being 3 and highest score being 5. Statement 5, my partner has improved his or her communication initiation through intervention, had an average score of 2.2, the range of this statement as 2-5. Both of the last statements had a somewhat disagree answer based on the average. Thus representing the variability in response to the peer intervention.

Results

Figures 1 display the participants' number of initiations during the APE class. The x-axis is the number of sessions and the y-axis is number of initiations of communication. During baseline, he consistently made 0 initiations of communication. In Andrew's intervention stage he averaged 2.4 initiations of communication. The range of initiations was between 2-3 initiations per session.

During baseline, Cathi averaged 0.8 initiations of communication. The range of initiations was between 0-2 initiations per session. In Cathi's she averaged 0.75 initiations per session. The range of initiations was between from 0-2 initiations per session.

In Bryan's baseline stage, he averaged 6.4 initiations of communication. The range of initiations in was 3-8 initiations per session. In Bryan's intervention stage he averaged 8.3 initiations per session. The range of initiations during the intervention period was 9-8 initiations per session.
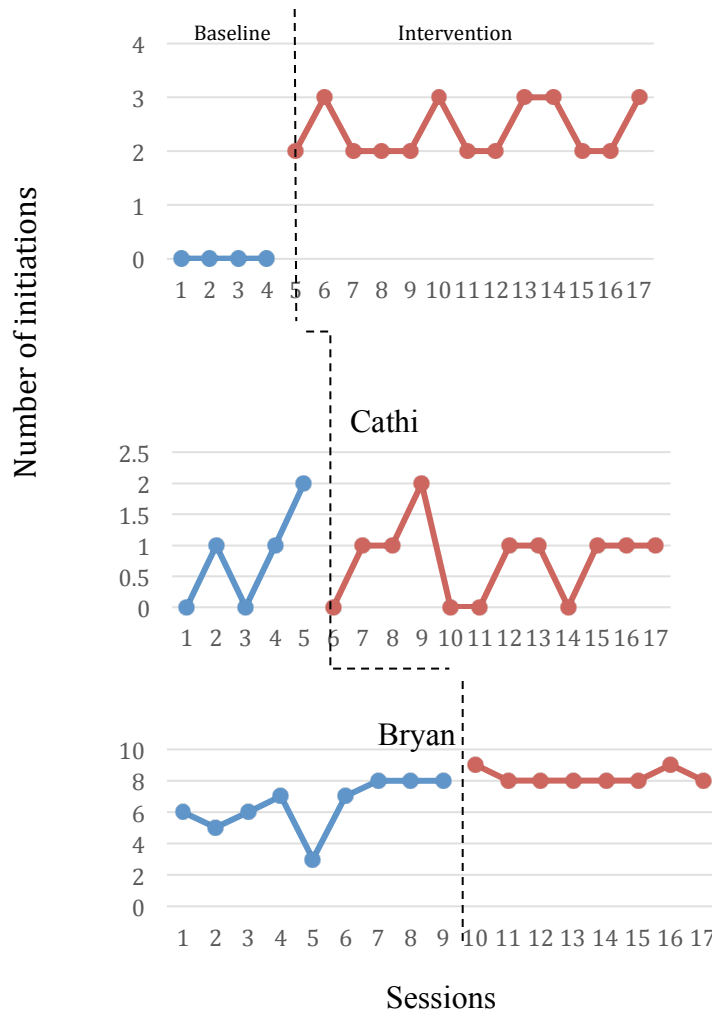
Figure 1. Number of initiations across baseline and intervention for Andrew, Cathi, and Bryan.

Discussion

The purpose of this study investigates whether the use of P.E. buddies and communication training impact the rate of communication initiation of students with moderate to severe intellectual disabilities. Each participant experienced different results after their intervention stage. The intervention stage was successful for Andrew. By analyzing his data and calculating the non-overlapping data we can conclude that the intervention was successful. Andrew increased his initiation frequency from 0 to 3 initiations in his intervention sessions. By calculating his PND, overlapping data, Andrew scored 100% above the highest point on his baseline data. This tells us that the

intervention was highly effective. The trend line on his graph suggests that the intervention with the P.E. buddies had a positive impact on Andrew's initiation of communication. Andrew interacted with peers that he normally would not have interact with. This was due to his selective mutism and shyness. As he practiced his communication skills, he became comfortable and his initiation rate increased.

Cathi's non-overlapping data, is 0%. The data states that the intervention was unreliable and ineffective. Cathi scored 11 points under the highest point in baseline during intervention. Her low scores were due to her behavior, scratching, pinching, biting, and screaming, and absenteeism during data collection. During behaviors, paraprofessionals and the teacher had to intervene for the safety of the participant and P.E. buddy.

Bryan exhibited a negative trend during his intervention stage. There was a negative correlation between intervention and initiation of communication. The PND for his data during intervention was 25%. This states that the intervention was not successful. Although Bryan did display higher initiations of communication than Cathi or Andrew, his initiations did not increase, but instead remained the same or decreased. Intervention could have been successful if intervention was implemented earlier, he had a male P.E. buddy, and the sessions were more than ten minutes. Bryan responds and interacts more with older male students.

Andrew's success was due to presenting the lesson of initiating communication weekly, reoccurring prompting, reminding to initiate conversation by the primary observer before each observation period, use of this AAC device, and interaction with his P.E. buddy. This allowed Andrew to gain confidence in asking questions. Bryan's and

Cathi's results were directly impacted by their partners, P.E. buddies, not engaging participants in conversation. When their P.E. buddies did not engage, the participants did not make the effort to initiate conversation. This effected the amount of initiations that the participants could have made during that period of silence, 1-2 minutes. Bryan's and Cathi's frequency of initiation could have improved if they were engaged in conversation and practiced their skills more frequently.

Limitations and future research

There were various limitations to this study that warrant further discussion and additional research. Limitations to the study includes behavior interfering with intervention, student's being absent when intervention was scheduled, and P.E. buddies not engaging participants to engage conversation. During the intervention phase, Cathi exhibited behaviors that had to be addressed by the primary and secondary observer. In most cases, Cathi had to be removed from her APE class in order to de-escalate. This impacted the amount of initiations that she could have initiated if she did not display behaviors. Additionally, participants were absent during their session, due to this, their initiations for that session was a 0. Another limitation that effected the amount of initiations were P.E. buddies. Although P.E. buddies were reminded about the study and how to engage participants in conversation, Cathi and Bryan's P.E. buddies did not engage the students enough. Their P.E. buddies remained quiet for 1-2 minutes, which is an abundance amount considering that the sessions were 10 minutes in duration. When the P.E. buddies did not engage, the participants did not make the effort to initiate conversation.

Other limitations included teaching the participants to navigate through their AAC device, as well as their AAC device malfunctioning. It was necessary for all participants to use an AAC device due to their unintelligibility of speech. Initiation of conversation required the participants' vocalization to be understandable. The P.E. buddies could not have engaged in conversation if they did not understand what their partner was saying. When participants did use their AAC device, the device would malfunction by freezing. This made it difficult for the participants to navigate to the appropriate page and question.

Future research should focus on investigating AAC implementation in inclusive settings at the high school level. Additionally, it should emphasize an intervention that will enhance communication access and participation in general education settings for students with multiple to severe disabilities. Furthermore, research should focus on the level of engagement that general education peers provide in correlation to the effectiveness of intervention. Lastly, future research should focus on different training strategies for general education peers to help students with disabilities increase their communication use in the general education setting.

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Appendix A

Social Skills: Initiating Conversation Lesson Plan

OBJECTIVE

Student will learn skills in order to initiate conversation out of their special day class.

MATERIALS NEEDED
1. White board
2. Eraser
3. Topic cards
4. Conversation starter worksheet

Instruction Procedures:

Teacher starts lesson by asking class why they start conversations with other people.
1. **Describe skill**: Initiating a conversation means going up to someone you know or don't know in order to get and/or give information.

Teacher will discuss reasons for initiating conversations, eliciting examples from the class first, then providing reasons to help guide them.

-To learn about people's interests

-To make friends

-To get help

-To join in a group

-To share your opinion

2. Next the teacher will model both good and bad examples of how to initiate conversation with a peer by acting out a scenario with the paraprofessional as listed below:

 Teacher: goes to paraprofessional and start poking her and making weird face

Paraprofessional: Stop that is annoying, leave me alone.

3. Ask student what was wrong with your approach and elicit bad examples of initiating a conversation. Then discuss good ways of initiating conversation, guiding student examples to fit the steps of the skill (Make eye contact, smile and say name, greeting) Next model an appropriate way to initiate a conversation with the paraprofessional using an example below.

 Teacher: Ms. Gonzales, how was your weekend?

Paraprofessional: Good, I went to the mall. What did you do?

Procedure for Initiating conversation:

1. **Steps of the skill**: Teacher will specify why each step is important, but will first elicit reasons from class and supplement accordingly. For example: Eye contact and saying a person's name lets them know we are talking to them, smiling lets others know we are approaching them in a friendly manner, appropriate space ensures that our peers can hear what we are saying. Do not invade personal space as it makes people uncomfortable. Come up with an appropriate greeting (e.g., "Hi, how are you? What did you do this weekend?)

1. **Make eye contact**
2. **Smile and say person's name**
3. **Greeting (topic sentence or question)**
4. **Space (allow peer personal space)**
5. **Wait for a response**

- Teacher then differentiates situations in which the student approaches someone they know versus someone they don't know and elicits ideas from class while writing them on the board.
- Together the class will make a list of topic sentences to initiate conversations with people the students know and people they don't know.
- Next pass out topic cards to pairs of students and let them practice with each other or a paraprofessional.
- Student will report back what they learned about their partner and if they have anything in common.
- Next switch partners and topic cards and let students practice again.

Appendix B

Name _____

Conversation Starter checklist for students

Behavior	Yes	No
Make eye contact		
Smile and say person's name		
Space		
Greeting		
Wait for response		

Examples of sentences to use as a greeting:

1. Hello.

2. How are you?

3. I like your shirt.

4. Can you help me?

5. Where did you buy that _____?

Appendix C

Procedural Fidelity Checklist

Student:		
Date:		
Pre-Intervention		
	1. Lesson/training was taught to P.E. Buddies on how to maintain and initiate conversation	Yes No
	2. Lesson/training was given to participants on how to initiate conversation	Yes No
Intervention		
	1. Data collections materials were organized and accessible.	Yes No
	2. Data collection materials were given to secondary observer.	Yes No
	3. Participants were reminded how to initiate conversation before intervention session.	Yes No
	4. P.E. buddies were reminded about the study and how to engage participants.	Yes No
	5. Both primary and secondary observers set up their timers on their phones for 10 minutes.	Yes No
	6. Ten minute intervention session between participants and P.E. buddies.	Yes No
	7. Number of initiations were recorded for each participant.	Yes No
	Total agreements	/9

Appendix D

Grade level:

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
1. Students with moderate to severe disabilities have difficult time communicating with their peers.	1	2	3	4	5
2. Intervention in communication is essential for students with moderate to severe disabilities.	1	2	3	4	5
3. Students with moderate to severe disabilities benefit from peer interaction in general education settings .	1	2	3	4	5
4. Communication training in initiating and maintaining conversation has helped me provide my peer to initiate and maintain conversation.	1	2	3	4	5
5. My partner has improved his or her communication initiation through intervention.	1	2	3	4	5

Gender: