

# SECONDARY PEER BUDDY PROGRAM IN PHYSICAL EDUCATION

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## Abstract

Peer buddy programs, where peers with and without disabilities are engaged in coursework together, have demonstrated positive motor and social-emotional effects in school settings. Despite the positive effects demonstrated in research, there is limited information on starting a peer buddy program in physical education settings. This investigation provides information on navigating a peer buddy program and demonstrating the positive effects in an adapted physical education class in a high school setting. Purposive sampling was used to recruit 22 individuals who participated in the secondary peer buddy program (16 students with disabilities, 6 typically developing peers) for 20 weeks. The Peer Buddy PE Survey and Students with Disabilities PE Survey were conducted pre and post intervention. The data from the survey questions were analyzed using frequency analysis. Results indicated students with disabilities had an increased interest in participating in activities with their peers and an increased opportunity for peers greeting them at school. Results for peer buddies found a significant increase in participation in physical activity after the program, an increase of knowing their peers with disabilities, and awareness of disabilities after the program. Implementing and fostering peer buddy programs in physical education settings not only enhances social interaction and physical engagement but also promotes inclusivity and understanding among students with and without disabilities.



### What is Adapted Physical Education?

The Individuals with Disabilities Education Act (IDEA, 2004) mandates that children with disabilities have access to physical education (PE) as part of their special education services. IDEA emphasizes the importance of PE in promoting physical fitness, motor skills, and overall well-being for students with disabilities, specially designed if necessary. According to the National Consortium for Physical Education for Individuals with Disabilities (NCPEID, 2022), adapted physical education (APE) is instruction that is designed to be adapted or modified as appropriate for individuals with disabilities, ensuring equitable access and participation in physical activities tailored to their needs. This ensures that all students have the opportunity to benefit from physical education programs that support their individual growth and development.

### What is an inclusive environment?

According to California Teachers Association (2024) an inclusive environment is needed in physical education class. An inclusive environment is a place where everyone is welcome regardless of their differences, abilities, or knowledge. This environment is usually created by creating a safe and supportive classroom. This can entail from acknowledging students' backgrounds, respecting cultures, and using universal design for learning. Inclusivity in a classroom is ensuring everyone feels a sense of belonging or active participation.

### What are Peer Buddies?

One strategy to help individuals with disabilities reach their maximum potential in PE is to utilize peer buddies. A peer buddy is a typically developing peer (TDP) who is partnered with a student or group of students of the same or similar age with disability and serves as a role model (Carter et al., 2015). Smart et al. (2023) indicated that peer buddies can have roles in leadership, demonstrate tasks, or assist the student in activities. Peer buddies should not simply be placed into the APE setting without training. Pratiwi and Mangunsong (2020) concluded that peer buddies need training in skill acquisition, increased knowledge of disability categories, instructional support, positive at-

titude, willingness, assigned roles, and training in social interaction prior to engaging in a peer buddy program.

### Why use Peer Buddies?

There are many benefits to a peer buddies program. Benefits may include communication between peers, appropriate socialization, assisting with large class sizes in PE, and specific benefits for both sets of students (i.e., students with and without disabilities).

**Communication.** Students with disabilities may communicate in different ways and have varying levels of communication. Some students with disabilities communicate with an Augmentative and Alternative Communication (AAC) device, while others use gestures. Some students are comfortable with carrying a conversation while other students can respond with short phrases. Using peer buddies can aid in communication by increasing greetings, increasing the preference of communication (e.g., AAC device, gestures, nods, verbal), increase opportunities for social communication, and social support/guidance to carry a conversation (Pratiwi & Mangunsong, 2020).

**Socialization.** Students with disabilities may encounter challenges in social skills, such as experiencing fewer mutual friendships, reduced peer acceptance, and increased internalizing behaviors (Pinto et al., 2018). Social interactions among peers are limited due to a scarcity of individuals capable of facilitating conversations. For example, two students with limited expressive language are unlikely to engage in conversation with each other due to their communication challenges. This difficulty may hinder their ability to initiate and sustain meaningful interactions, impacting their social engagement and opportunities for developing peer relationships. Therefore, a peer buddies program may help facilitate conversations and communication.

Santamaria and Lafuente (2023) examined the emotional variables of students working cooperatively in PE. Overall, the study demonstrated a positive difference in emotions like tension, friendship, and intensity in the experimental group when peer buddies assisted students with disabilities. Meulen et al. (2021) demonstrated similar results with im-

provement for students with disabilities in social skills like providing opportunities for social interactions, and empathy when a peer buddy program was utilized. These findings highlight the beneficial impact of peer buddy programs in enhancing social interactions and emotional well-being among students with disabilities in PE.

**Large Class Sizes in Physical Education.** Peer buddies can significantly support PE teachers in managing large class sizes, a common challenge noted by the California Teacher Association (2024). By incorporating peer buddies, teachers gain additional assistance with various PE tasks, such as demonstrating exercises, setting up and picking up equipment, and providing feedback to classmates. This collaborative approach, when effectively implemented, not only alleviates the burden on the teacher but also fosters a supportive learning environment. Utilizing peer buddies may better help the teacher as additional individuals can assist with PE-related tasks (e.g., demonstration, equipment set up/pick up, feedback). Peer buddies can help ensure that each student receives more individualized attention, which can enhance the overall effectiveness of PE lessons and improve student engagement. This strategy leverages the skills and enthusiasm of students to create a more dynamic and manage-

able classroom experience.

**Benefits for TDP (Peer Buddies).** Research has demonstrated there are several benefits for peer buddies. Pinto et al. (2019) indicated that these programs promote empathy and positive attitudes towards individuals with disabilities. By engaging in activities together, peer buddies developed leadership skills, patience, and a sense of responsibility (Lafuente & Maeso, 2023). Peer buddies also experienced enhanced social skills and increased self-esteem as they forged meaningful friendships across abilities (Carter et al., 2006). Moreover, these programs create inclusive school environments that reduce bullying and foster a sense of community (Kurth et al., 2018). Peer buddy programs contribute to a more compassionate and supportive school culture (Liasidou, 2014).

To date, there is limited research on initiating a peer buddy program in PE. The purpose of this investigation was to demonstrate the effects of a peer buddy program during an APE class in a high school setting.

Methods

**Participants.** After obtaining university institutional review board approval for this

Table 1: Participant Demographics

	Factor	n	%
Peer Buddies	Female	4	66
	Male	3	33
	Latinx or Hispanic	5	83
	Black or African American	1	16
Student with Disabilities	Female	7	43
	Male	9	56
	Latinx or Hispanic	13	81
	Black or African American	3	13
Disabilities	Autism	7	44
	Intellectual Disability	5	31
	Orthopedic Impairment	2	13
	Multiple Disabilities	1	6
	Visual Impairment	1	6

investigation, purposive sampling was used to recruit participants with and without disabilities. Inclusion criteria for students with disabilities were having APE on their individualized educational program (IEP). TDP students were selected from an application they submitted with four questions (e.g., Why do you want to be a peer buddy? What qualities or experiences do you have that make you a good peer buddy?), two recommendations (i.e., from staff and counselor), and commit to a semester. The peer buddies were chosen because they had an interest in leadership, and a positive attitude.

There were 22 individuals who participated in the high school peer buddy program. Six individuals were TDP buddies who applied to be in the program. Sixteen were students with disabilities who had APE on their IEP. See Table 1 for demographic results. The program took place in a 45 minute daily self-contained APE class taught by the primary investigator.

**Research Design.** A mixed methods research design was used. The program requires TDP to be recruited and applied for the program. To recruit students, the principal investigator provided a visual presentation to the PE Department at one secondary school in southern California to promote the program (see Figure 1). The PowerPoint informed the program's purpose and defined what a peer buddy was, the application process, benefits, grading, expectations, and contact information.



Figure 1. QR Code for Recruitment PowerPoint

The application to become a peer buddy had four short response questions regarding interest in the program, prior knowledge of disability awareness, and extracurricular activities. The students also needed three recommendations (e.g., counselor, teacher). See Figure 2 for application to become a peer buddy.



Figure 2. QR Code Application to Become a Peer Buddy

Peer buddy participants were trained in-person by the research team, which included the APE teacher, on feedback, behavior management, disability awareness, and routines (see Figure 3). Training was provided during the 1st and 2nd weeks of the program for 30 minutes, 5 days per week. Participants were also given in-person feedback from the research team during the 90-minute APE lesson, 5 days per week, for 20 weeks. The APE lessons consisted of cooperative games, sports, and non-traditional sports to ensure students were meeting their grade standards. See Figure 4 for curriculum plan. The TDP students received PE credit from the counselor as students were meeting their grade standards.



Figure 3. QR Code Peer Buddy Training



Figure 4. Curriculum Plan

The peer buddies were partnered with a new student with a disability every 2 weeks. Rotating peer buddies promotes inclusivity and fosters social-emotional learning by encouraging students to interact with diverse peers, which helps reduce social isolation and builds empathy (Jones et al., 2017; Edutopia, 2020). This approach also supports a collaborative classroom environment and enhances interper-

sonal skills critical for long-term academic and social success (Van der Meijden et al., 2005). Students were paired based on grade level, similar interests (e.g., video games, hobbies), or request by both student and peer buddy. This was done to intentionally promote conversation and connection between peers. The teacher supported this by using purposeful prompts such as, “Hey, did you know that the two of you really enjoy...,” helping to spark shared interests and build rapport.

**Instrumentation.** The peer buddies completed a pre- and post- survey regarding working with individuals with disabilities. The Peer Buddy PE Survey was evaluated by eight APE experts who were current APE teachers or higher education university faculty who had more than 10 years of experience related to APE to establish face/content validity. After updated edits and consensus from the experts, the final Peer Buddy PE Survey had nine total questions. Eight questions used a 5-point Likert response (1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree) and one question was open-response. Example questions included: ‘I like participating in PE activities’, ‘I like to work with my peers’, and ‘I know someone with a disability.’

Table 2: Peer Buddy PE Survey Results

Survey Question	Pre survey mean	Post survey mean
I like participating in PE activities.	3.5	5.0
I like to work with my peers.	3.6	4.5
I know someone with a disability.	2.6	5.0
I have previously participated in an activity w/ student w/ disability.	2.1	5.0*
I have played at a unified sports event before.	2.0	4.0
I am familiar with disabilities.	2.3	5.0*
I have received any disability training.	2.0	5.0*
I have heard of inclusion.	2.0	5.0*
I participated in inclusion activities.	2.0	5.0*

Table 3: Students with Disabilities PE Survey Responses

Survey Question	Pre survey mean	Post survey Mean
Do you like PE?	2.3	2.6
Do you like playing sports?	2.5	2.6
Do peers say hi?	2.2	2.8*
Do you like playing by yourself?	1.5	1.1
Do you like to play with others?	2.3	2.7*

Students with disabilities were asked five similar questions pre- and post-intervention with a 3-point Likert scale in the form of emojis (i.e., thumbs down [no], thumbs sideways [sometimes], thumbs up [yes]). The Students with Disabilities PE Survey was evaluated by the same eight APE experts to establish face/content validity.

Example questions included: ‘Do you like PE?’ or ‘Do you like playing sports?’.

**Data Analysis.** The data from the survey questions were analyzed using descriptive statistics. Results were compared based on the pre-survey and post-survey responses. Alpha level was set at .05.

### Results

The Peer Buddy PE Survey results demonstrated that peer buddies found a significant increase in participation in physical activity after the program, knowing their peers with disabilities, and awareness of disabilities after the program. For instance, students with disabilities stated they liked participating in PE activities

with a mean score of 3.8 and increased participation to a 6.0 mean score. See Table 2 for peer buddy results and Table 3 for students with disabilities survey results.

## Discussion

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**The purpose of this investigation was to demonstrate** the effects of a peer buddy program during an APE class in a high school setting. Based on survey responses, both peer buddies and students with disabilities indicated improvements.

**Peer Buddy Improvements.** The peer buddies demonstrated increased awareness and knowledge of disabilities, facilitating their ability to engage meaningfully with peers with disabilities. This provided peer buddies with more opportunities to participate in activities alongside their peers with disabilities. As mentioned in previous research, Meulen et al. (2021) demonstrated similar results with improvement for students with disabilities in social skills like providing opportunities for social interactions, and empathy when a peer buddy program was utilized. These findings highlight the beneficial impact of peer buddy programs in enhancing social interactions and emotional well-being among students with disabilities in PE.

**Students with Disabilities Improvements.** The students with disabilities reported slight increases in their enjoyment of PE, participation in sports, interactions with peers, and preference for playing with peers. These findings align with Pratiwi and Mangunsong (2020), who observed improvements in social communication skills, peer support opportunities, and overall social and academic skills. Furthermore, peer buddies continued to engage with students with disabilities outside of structured programs, fostering ongoing peer support and social interactions. These outcomes echo Meulen et al. (2021), highlighting the broader benefits of inclusive peer support systems in enhancing social opportunities, acceptance, self-esteem, empathy, and interpersonal connections among all students involved.

**Limitations.** There were limitations that should be addressed within this study. First, there were a small number of participants, from one setting. This decreases the generalizability of the investigation. In addition, there were a small number of survey questions. Some students with disabili-

ties needed support to help read or understand the survey questions.

**Future Directions and Recommendations.** In the future, more responsibility may be placed on a general physical education teacher. For example, the general physical education teacher could be responsible for grading the TDP students. Regarding participant recruitment, speaking at teacher professional development days may help to advocate for the program and help with the recruitment process.

## Conclusions

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**PE and APE teachers should consider imple-**menting a peer buddy program to benefit both students with and without disabilities. However, it is vital to train peer buddies extensively, covering essential aspects such as skill acquisition, understanding of disability categories, providing instructional support, fostering a positive attitude, willingness to engage, assigning roles effectively, and promoting social interaction. Implementing a peer buddy program has the potential to enhance socialization, manage larger PE class sizes effectively, increase opportunities for inclusion, and promote greater disability awareness among all students involved. These efforts can contribute significantly to creating a supportive and inclusive environment within physical education settings.

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