

AN EXPLORATORY STUDY OF A PEER MENTORING PROGRAM FOR HIGH SCHOOL
STUDENTS WITH DISABILITIES

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MASTER OF SCIENCE

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ABSTRACT

Many students with disabilities are isolated from general education classrooms and are restricted in the social opportunities that are available to them. With the shift toward more inclusive education settings, these students are given the chance to develop alongside their general education peers. The present study analyzed a peer mentoring program that partnered students with disabilities (i.e., mentees) and students without disabilities (i.e., mentors) with the goal of promoting inclusion at a high school. The study included a set of focus groups and surveys. The four focus groups included past mentors, teachers, and administrators who answered questions about their perception of the program and the impacts they have seen. For the surveys, mentors ($n = 86$), mentees ($n = 14$), and general education students ($n = 676$) responded to a variety of questions about inclusion at their school, their perceptions of disabilities, and the program's impact. Findings indicated that the mentors and mentees perceived an increase in social connections and skill development as a result of the program. Additionally, mentors and general education students differed in their perceptions of individuals with disabilities and views of the program. Findings support previous research that indicates that inclusive peer mentoring programs can influence relational and skill-based outcomes for students involved in the program, in addition to mentors' perceptions of individuals with disabilities.

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Finally, I would like to thank my parents, who have always encouraged me to reach for more and never settle for less. It is because of you that this thesis marks not the end but the beginning of the next chapter in my academic journey.

DEDICATION

I would like to dedicate this thesis to my wonderful family and friends. Your endless encouragement has pushed me to become a woman I am proud of. No words will ever be able to adequately convey the depth of the love I have for you all.

DISCLAIMER

When writing this thesis, it became apparent that the language surrounding people with disabilities is ever-evolving. I hope always to respect the individuals I am discussing in this paper, and I intend to always place emphasis on the individual as a human being before anything else. With that being said, I am in a position where I must choose the specific language that clarifies the type of individuals I am speaking of. Because of this, I have researched and consulted advocates to understand better what is preferred and accepted by those with disabilities. I have chosen to utilize the abbreviation SE for special education over SPED due to the argument that the abbreviation SPED has been used as a derogatory term.

Additionally, I will be predominantly using person-first language rather than identity-first language. Again, my intent is to put the individual first, so I chose this approach to make that clear. I am also aware of differing views on the use of this language, but unfortunately, I cannot accommodate all viewpoints. At the time this is being written, I believe the use of person-first language and the abbreviation SE are the most appropriate and respectful. I do believe that all people with disabilities should be able to choose how they are identified, and I acknowledge that my writing may not express this.

TABLE OF CONTENTS

ABSTRACT.....	iii
ACKNOWLEDGMENTS	iv
DEDICATION.....	v
DISCLAIMER.....	vi
LIST OF FIGURES	x
LIST OF ABBREVIATIONS.....	xi
LIST OF APPENDIX TABLES.....	xii
1. LITERATURE REVIEW	1
1.1. Exclusion of Those with Disabilities	2
1.2. Peer-Mediated Instruction and Intervention.....	3
1.3. Basic Psychological Needs Theory and Peer Mentoring.....	5
1.3.1. Inclusive Peer Mentoring and Competence	6
1.3.2. Inclusive Peer Mentoring and Relatedness	8
1.3.3. The Contact Hypothesis	9
1.4. Peer to Peer	11
1.5. The Present Study	13
2. METHOD	15
2.1. Study One.....	15
2.1.1. Participants	15
2.1.2. Procedure and Measures.....	16
2.2. Study Two	16
2.2.1. Participants	16
2.2.2. Procedure.....	17
2.2.3. Measures.....	19

3. RESULTS	20
3.1. Results Study One	20
3.1.1. Positionality Statement.....	20
3.1.2. Plan of Analysis	20
3.1.3. Genuine Connections	21
3.1.4. Changes in School Culture	21
3.1.5. Natural Peer Support	22
3.1.6. Strong, Core Mentors	23
3.1.7. Dedicated Program Head	23
3.2. Results Study Two	24
3.2.1. Plan of Analysis	24
3.2.2. Mentee Responses	24
3.2.3. Mentor Responses	25
3.2.4. Comparing GE Students’ and Mentors’ Responses	26
4. DISCUSSION.....	32
4.1. Connecting to the Contact Hypothesis.....	32
4.2. Increasing Relatedness.....	33
4.3. Increasing Competence.....	35
4.4. Overall Perceptions of Peer to Peer	36
4.5. Implications.....	38
4.6. Limitations	39
4.7. Future Directions.....	41
4.8. Conclusions.....	42
REFERENCES	43
APPENDIX A. QUESTION GUIDE FOR FOCUS GROUPS.....	49

APPENDIX B. SURVEY QUESTIONS.....	51
APPENDIX C. SURVEY RESPONSES.....	55

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Daily Interactions.....	27
2. Interaction Enjoyment.....	28
3. Capabilities of People with Disabilities.....	29
4. Peer to Peer is an Asset.....	30
5. Positive Changes.....	31

LIST OF ABBREVIATIONS

IDEA	Individuals with Disabilities Education Act
SE	Special Education
GE	General Education
I/DD	Intellectual and Developmental Disabilities
ASD	Autism Spectrum Disorder
P2P	Peer to Peer
PMII	Peer-Mediated Instruction and Intervention
BPNT	Basic Psychological Needs Theory

LIST OF APPENDIX TABLES

<u>Table</u>	<u>Page</u>
C1. Mentee Perceptions of P2P.....	55
C2. Mentor Perceptions of Inclusion	56
C3. Mentor Perceptions of P2P	57
C4. GE Student Perceptions of Inclusion.....	58
C5. GE Perceptions of P2P	59

1. LITERATURE REVIEW

For many decades, children with disabilities have been marginalized and excluded from public life, with changes coming only in recent years (Tarvainen, 2020). This social exclusion has resulted in lower reported well-being and higher levels of mental health problems for these individuals (Arslan, 2018). One study found that those with intellectual and developmental disabilities (I/DD) were lonelier and had smaller social networks than those who did not have I/DD (Fulford & Cobigo, 2018). To address this problem, inclusive education programs have been developed to focus on building relationships and closing the social gap between those with and without disabilities.

Many advocates of inclusion for people with disabilities suggest more inclusive school programs, such as the Peer to Peer (P2P) program, which integrates special education (SE) and general education (GE) students using a mentor-mentee model. Inclusive programs like P2P focus on building relationships between the GE mentor and SE mentee to promote inclusion and positive social and educational outcomes for the mentee. These programs have been found to promote self-esteem and well-being in students with disabilities (Van der Meulen et al., 2021). Additionally, numerous studies have shown that inclusive environments can improve academic performance and social inclusion for students with a variety of disabilities (Kefallinou et al., 2020; Oh-Young & Filler, 2015; Ruijs & Peetsma, 2009) and increase GE students' acceptance of people with disabilities (Ouellette-Kuntz et al., 2010; Ruijs & Peetsma, 2009). The purpose of the present study was to evaluate P2P, a peer mentor program for high school students with disabilities that attempts to promote a school-wide culture of inclusion as well as relationship development between students with and without disabilities.

1.1. Exclusion of Those with Disabilities

The Rehabilitation Act (1973) was the first significant push for the rights of people with disabilities on the federal level, as it prohibited discrimination by federal organizations based on disability. This legislation was followed in 1975 by the Education for All Handicapped Children Act, subsequently renamed the Individuals with Disabilities Education Act (IDEA; 2004), which guaranteed that all children with disabilities have access to free and appropriate public education in the least restrictive environment. IDEA was a crucial step towards the inclusion of people with disabilities in educational settings. While the education system has evolved to make learning opportunities more accessible to people with disabilities, this act signified the shift in the public mindset that people with disabilities are entitled to an education. These Acts were followed later by the Americans with Disabilities Act (1990), which prohibited discrimination against people with disabilities in places open to the public. These changes have been echoed by disability advocacy programs that operate on the state and federal levels. As a result of these policies, there was an increase in the visibility of people with disabilities. Disability advocates have begun pushing for their inclusion in mainstream life, in addition to supporting the idea that people with disabilities can live independently, obtain jobs, and start families. While there has been tremendous progress in the past 50 years, there is still a disconnect in understanding and contact between people with and without disabilities.

There are many barriers that perpetuate this gap. As a result of problems such as a lack of transportation, communication, and even understanding, people with disabilities are often limited in the social communities and events to which they have access (Abbott & McConkey, 2006). Additionally, when shifting the focus to educational settings, students with disabilities are often placed in SE classrooms that limit the students' opportunities and ability to interact with their GE

peers (Cipriano et al., 2018; Elbaum, 2002). Within schools and SE classrooms, there is a necessary but delicate balance between providing SE students exposure to GE settings and providing an environment that is conducive to learning for the level of the student. The SE classroom is often the most appropriate and productive place for the student. This means that while the students receive the specialized education they need, they lose time with their GE peers. It is also essential to consider other settings that are instrumental in building connections between students, such as sports and clubs. Because individuals with disabilities are often unable to participate in these activities for various reasons, such as inaccessibility or lack of support, students also lack the opportunity to forge friendships outside of the classroom (Abbott & McConkey, 2006). To address this problem and promote greater inclusion, programs have focused not only on integrating students but also on building positive relationships among students through peer interventions.

1.2. Peer-Mediated Instruction and Intervention

An approach involving peer-mediated instruction and interventions (PMIIs) has been used to support students with disabilities both socially and academically and has been found to promote positive outcomes for students (Odom et al., 2003). PMII is an intervention approach that utilizes peers without disabilities as a support system for learning across different domains, including skills used in and out of school. The concept involves having the peer play the role of teacher to supplement the educators or therapists. More often, this method is used as a part of interventions for children with autism spectrum disorder (ASD), but it has been applied to a diverse range of I/DD (Zagona & Mastergeorge, 2018). PMII can be run on a smaller scale, such as between two pairs, or on a larger scale, such as a classroom-wide program. Additionally, peer mentors are often taught how to effectively communicate and interact with their mentees

(Zagona & Mastergeorge, 2018). Overall, PMII uses peer guidance to encourage people with disabilities to reach the goals set by their instructional or intervention plan.

The primary purpose of PMII is to promote social, communication, and behavior development (Zagona & Mastergeorge, 2018). The aim is to improve the child's competence in these areas while providing an opportunity to develop positive relationships with their peers. One study found that children with ASD had improved social communication skills and peer engagement across different classroom contexts (Zagona & Mastergeorge, 2018). The connections built during the intervention have been found to facilitate later informal interactions between students, resulting in an increase in overall social connections and peer affiliations that last beyond the intervention period (Asmus et al., 2017). For mentors, PMII can also stimulate school engagement, increase self-worth, promote skill and career development, and improve attitudes toward those with disabilities (Travers & Carter, 2022).

While PMIIIs are evidence-based, there is variability in the types of curriculums adopted by these interventions, which means they can differ in their goals and outcomes (Travers & Carter, 2022). One form of PMII is peer mentoring, which includes students with disabilities as mentees and their peers without disabilities as mentors. This PMII utilizes an existing form of support already found in schools and after-school activities, meaning a natural system of support exists to be tapped into. It allows the students to receive needed support while avoiding the stigma associated with adult support, such as from a paraprofessional (Travers & Carter, 2022). Peer mentoring programs in inclusive settings may promote similar outcomes as other PMIIIs through the facilitation of inclusive collaboration between students. They could foster the development of relationships and personal competencies, both of which are aspects of Basic Psychological Needs Theory.

1.3. Basic Psychological Needs Theory and Peer Mentoring

From a theoretical context, we can view inclusive peer mentoring through the lens of the Basic Psychological Needs Theory (BPNT). BPNT attempts to explain how social conditions influence a person's basic psychological needs, specifically focusing on a person's need for autonomy, competence, and relatedness (Vansteenkiste et al., 2020). Within BPNT, much of the research focuses on the social and psychological state that allows people to excel in their environment (Deci & Ryan, 2000). When utilizing BPNT in peer mentoring, we need to understand what it means to have mentors aid in the promotion of autonomy, competence, and relatedness within their mentees. For the current study, we will focus only on competence and relatedness. Competence relates to a person's need to master their environment, particularly concerning the important life circumstances in which they find themselves (Ryan & Deci, 2017). Mentors can provide guidance and support to facilitate learning and skill mastery. As for relatedness, it involves not only feeling connected with others but feeling a sense of belonging as well (Deci & Ryan, 2000). Relatedness includes a person feeling as though they are contributing to others. To foster this feeling, mentors can provide a safe place for a relationship to be built and help facilitate other connections for their mentees. Providing this scaffolding and fulfilling these needs can contribute to a person's overall well-being and can influence students' outcomes related to well-being.

When considering BPNT in the context of students with disabilities, how their needs for autonomy, competence, and relatedness are being met affects their motivation to advance alongside their peers. For students with disabilities, there is a disconnect between these basic psychological needs and the student's experience. In relation to their feelings of competence, it is possible that SE students' sense of proficiency is diminished by social comparison (Ryan &

Deci, 2017). Academic and social standards are set by what is typical and expected, meaning that students with disabilities are often compared to a standard that is unrealistic for them to meet. This indicates that these students are often assigned to classes designated for students who need a more individually paced learning experience for both academic and social purposes. While this may increase these students' competence in that area, there may still be a negative connotation applied to these types of classes.

In addition to this social comparison, SE classrooms separate students from their GE peers, often multiple times throughout the school day. These isolating factors can contribute to a decline in a student's sense of relatedness to their peers and their school as a whole. In order to experience relatedness, a person needs to feel as though they are a significant part of a group and that they are connected to and cared for by others (Ryan & Deci, 2017). With both social and communication barriers, it can be difficult for students to feel as though they are connected to their GE peers (Crowe et al., 2022). As a result, the focus now shifts to how we can improve the environment and social conditions surrounding SE to meet students' needs and, more specifically, increase their feelings of competence and relatedness.

1.3.1. Inclusive Peer Mentoring and Competence

Inclusive education involves empowering SE students and ensuring that they have an accessible education that allows them to succeed (Wertlieb, 2019). While the intention of SE classrooms is to provide students with the specific support they need, the separation of GE and SE students has perpetuated the assumption that people with disabilities lack the same competencies as their GE peers (Shifrer, 2013). Looking at student outcomes, research has shown that SE students in a more integrated setting perform better both socially and academically than those in a less integrated setting (Oh-Young & Filler, 2015; Ruijs & Peetsma,

2009). It is also important to note that while there is concern that inclusive settings may hinder GE student outcomes, there is a considerable amount of evidence that suggests that this is not the case (Ruijs & Peetsma, 2009).

Turning the focus to peer mentoring, SE students are intended to develop with the guidance of their experienced GE peers. The overall goal is for the SE student to improve their academic abilities and school adjustment. Peer mentoring, in general, has been shown to enhance mentees' quality of life and self-esteem (Curtin et al., 2016). Mentoring creates a connection between peers, allowing mentees access to an approachable resource and friend who may provide comfort and guidance in environments where mentees may be uncertain. Curtin et al. (2016) found that mentors provided a source of support that encouraged mentees to be confident in their abilities and capacity to learn and grow. Mentoring has also been shown to encourage socialization and improve social skills in mentees (O'Hagan et al., 2023). As for mentor outcomes, O'Hagan et al. (2023) found that mentors had improved confidence and leadership skills. Mentors also reported changes in their worldview and an increase in their flexibility.

The use of peer mentoring for students with disabilities is an emerging trend. Many schools have begun utilizing GE students as tutors for SE students, but the focus and findings of these programs are mainly on the student's academic growth (Moeyaert et al., 2021). While tutoring programs are associated with positive educational outcomes for students with disabilities, they do not address inclusion or social development in the curriculum or outcomes (Okilwa & Shelby, 2010). This study aims to address this gap. The goal of inclusive mentoring is to help students with disabilities transition into mainstream education settings while also supporting them socially and academically (Hillier et al., 2019). This suggests that it is possible

that inclusive peer mentoring programs may result in an increase in both social and academic competence in SE students.

1.3.2. Inclusive Peer Mentoring and Relatedness

While many schools have made efforts toward inclusive education, disparities remain. The label of “special needs” frequently means some students with disabilities find themselves placed in SE settings only (Cipriano et al., 2018; Elbaum, 2002). Some schools dedicate separate areas of their building for these students, leaving limited room for experiences between SE and GE peers (Zhang et al., 2004). This lack of exposure to SE students increases the divide between people of differing abilities and perpetuates stigmas surrounding people with disabilities (Cipriano, 2021; Shifer, 2013). Schools that implement inclusive school environments have been shown to increase the visibility and participation of students with disabilities while also encouraging new opportunities for inclusion (Booth, 2005). Through these increased opportunities for interactions, relationships can form between SE and GE students, allowing for an increase in their sense of peer-relatedness.

Inclusive schools can act as a precursor to social inclusion on a broader and more widespread scale, as SE students graduating from more inclusive schools have greater long-term social support in comparison to students from more segregated schools (Kefallinou et al., 2020). These positive outcomes go beyond SE students. One study found that the more contact one has with individuals with disabilities, the less likely they are to distance themselves from people with disabilities in social situations (Ouellette-Kuntz et al., 2010). Similarly, GE students who have increased exposure to SE students rated their SE peers more favorably than those who did not have this exposure (Ruijs & Peetsma, 2009). This demonstrates that more frequent interaction leads to more accepting views of people with disabilities. This evidence lends itself to the contact

hypothesis, which also supports the idea that an increase in GE and SE student interactions may increase the acceptance of people with disabilities and decrease inequity between these groups (MacMillan et al., 2014).

1.3.3. The Contact Hypothesis

The contact hypothesis postulates that contact between two different groups can diminish the prejudice and conflict experienced between the groups (Crystal et al., 2008). Gordon Allport (1954) argued that these interactions did not necessarily indicate that prejudice would be lessened. He asserts that in order for interactions between these groups to be effective, there needs to be cooperation, a common goal, equal status between groups, and institutional support for the interaction.

There are many suggested explanations as to why increased contact reduces prejudice. A primary explanation is that it may reduce the anxiety related to working with an unfamiliar group in addition to increasing empathy for that group (Dovidio et al., 2003). In relation to people with disabilities, it may be argued that they are not always seen in mainstream settings, which limits the knowledge people without disabilities have of them. Without personal connections to someone with a disability, there are few opportunities to learn about and become comfortable with disabilities, especially when that disability may affect how a person socializes. Increasing contact could possibly increase not only a person's familiarity with disabilities but also promote more positive attitudes towards people with disabilities (MacMillan et al., 2014).

While the validity of the contact hypothesis is an unsettled question, it has considerable implications for inclusive programs such as peer mentoring (Rademaker et al., 2020). Increasing contact between students with and without disabilities has the potential to decrease the prejudice that GE students feel toward SE students (Armstrong et al., 2017). In considering Allport's

requirements to meet this decrease in discrimination, we can analyze the current peer mentoring model. This peer mentoring program allows students with disabilities to receive the support of a paraprofessional but from a more companionate provider (i.e., their GE peer). While the status may not be equal between a mentor and mentee, it is a way to diminish the inequality experienced when support is provided by an adult paraprofessional (Travers & Carter, 2022). As for common goals, the program of interest provides the aim of improving social competence and creating meaningful relationships. Within the program, both mentor and mentee share these objectives and cooperate to meet these goals. Likewise, cooperation is a main priority of this peer mentoring and is what connects the two students throughout their day as they work together. Finally, effective contact requires institutional support, which is provided by the program facilitator and the school's leadership. Furthermore, it may be argued that peer mentors act as leaders within their school, providing support to their GE peers and encouraging further interaction between SE and GE students.

Overall, there is a solid theoretical base for the possible impact of inclusive peer mentoring. By meeting SE students' needs for competence and relatedness, this program may have the ability to increase student motivation and well-being. It is valuable to investigate whether students in this program are reporting increases in their feelings of both social and academic competence in addition to their reports of relatedness in relation to their peers and school. It is also essential to understand whether the program leads to an increase in contact between SE students and GE students who are not mentors and whether this correlates with an increase in acceptance of people with disabilities. This study will examine whether the program's foundation in BPNT and the Contact Hypothesis have influenced SE student outcomes, such as

their feelings of competence and relatedness, and GE student outcomes, such as their frequency of contact and acceptance of students with disabilities.

1.4. Peer to Peer

The current study focuses on Peer to Peer, a peer mentoring program found in a high school in the upper Midwest. The program's primary aim is for mentors and mentees to integrate and collaborate to promote socialization, independence, and friendship. The program goals, which are focused explicitly on mentors, include developing rapport with mentees, modeling appropriate social behaviors, building friendships, developing leadership and communication skills, and promoting independence and self-advocacy. GE students qualify for enrollment in the P2P classes, and they can take up to three year-long courses in total, with each class progressively becoming more advanced than the last.

There are no concrete qualifications for becoming a mentee. Mentees are predominantly students with ASD or intellectual disabilities. Additionally, students with learning disabilities and emotional disturbance may also participate if their Individualized Education Program (IEP) team believes that the program would be beneficial to the student. It is generally a subjective process to determine whether a student qualifies to be a mentee. The average mentee is in one or two applied topics classes and is in general education classes for half or more of their day. In general education classes, many of the students have one-to-one or one-to-three paraprofessional support. They also may leave their classroom to work on assignments in the school's resource room to get additional support from SE teachers. Their applied classes, such as math and English, are taught in a SE class by a SE teacher. Overall, mentees are students who require moderate support throughout their school day.

As for the classes for mentors, P2P One, which students can take starting their sophomore year, involves training GE students to be peer mentors. In this class, mentors learn about leadership skills, inclusion, and the characteristics of different disabilities. They also participate in a once-weekly scheduled combined day with their SE mentees. On combined days, mentees join their mentors in a classroom to participate in various social activities. These days are included with the goal of giving mentors an opportunity to become more comfortable with their mentees and for mentees to work on their social skills in a unique setting. Beyond the class, the students in P2P One are required to complete twenty or more hours of out-of-school activity with their mentees each semester. Out-of-school activity includes events such as going to football games, getting ice cream, or going to the movies. Students are expected to complete a journal entry after each out-of-school activity and turn it in to the instructor. Additionally, they are required to participate in ability awareness events that involve educating others in the community. Students are graded in the class based on attendance, participation in class activities, and participation in out-of-school activities.

P2P Two and Three consist of junior and senior students who have completed P2P One. These mentors take on the position of paraeducator and accompany SE students in one of their daily classes. The goal of P2P Two and Three is for mentors to appear more approachable to both mentees and their peers than an adult paraeducator. Mentors are required to help their mentees with class work and make adaptations to class material when necessary. Once a week, mentors must complete weekly objective forms with notes about their week with their mentees. They also complete a mandatory ten or more hours of out-of-school activity with their mentees per semester and one ability awareness event. Finally, students must complete papers each quarter that are reflections of their experience throughout the quarter. With this paper, students

provide samples of classwork completed and other artifacts from the time spent with their mentee. Students present this work to their fellow P2P classmates each quarter.

One requirement specific to year three is the P2P Capstone Project. These students must complete a capstone research project on a community issue needing awareness and transformation. The project is related to student interests and how the student's topic area relates to either P2P or individuals with disabilities. For the project, students must develop a research question and create a literature review on their topic. The project requires students to provide evidence of work they have done within the field of their research and to reflect on their experiences and growth throughout P2P. Upon completion, students present their project to a panel. The goal of the capstone project is for students to demonstrate the skills and knowledge they have developed through the P2P program.

Not all students who enter the program complete all three years. Additionally, the course can be taken on a semester basis, meaning that some students may only complete one semester of a particular year. The program is, however, formatted for the student to complete the entire year of each level of the program. The program ideally involves the student taking the first class as a sophomore, the second as a junior, and the third as a senior. There are no requirements for the students to complete the program in these years, only that classes are taken in ascending order.

1.5. The Present Study

With evidence that suggested the success of peer mentoring in inclusive education settings, the current project aimed to build upon previous research by analyzing the peer mentoring program. Such programs have been found to be effective for both mentor and mentee outcomes related to intra- and interpersonal skills. The question remained whether P2P, specifically at that school, had similar outcomes to previous studies for the students within their

program. Additionally, research was limited regarding the effects of these types of programs on those who are not directly involved with it or exposed to its curriculum. The purpose of this study was to assess the impact of this program on not only the mentors and mentees but the GE students and school culture as well.

The overarching aim of this study was to expand upon the empirical evidence of school outcomes related to inclusive peer mentoring. The study was broken into two separate but related sections. The first study examined the impact of the program through the perceptions of past mentors and current faculty and administrators at the school. This section used focus groups to answer the question, in what ways has the P2P program affected those involved with the program? The second study focused on the broader effects of the program. It aimed to answer the question, in what ways has the P2P Program affected the school as a whole? This question was answered with a series of surveys that were completed by mentors, mentees, and GE students at the school. Answering these research questions allowed the extension of current research on PMHs and provided an evaluation of a unique program that has never been studied.

2. METHOD

2.1. Study One

2.1.1. Participants

Participants included in the present study were drawn from a larger study examining the P2P program at six schools. Subsequent sections describe the samples used for the present study, which come from one school.

2.1.1.1. Past Mentors

The first focus group consisted of five White female GE students who had all graduated in the three to five years prior to their participation and were no longer enrolled in the P2P program. Participants were a part of the program in its early years of development. All students had completed the first P2P course, two students completed the second, and two completed a third year.

2.1.1.2. GE and SE Teachers

The next two focus groups were made up of GE and SE teachers who have daily interaction with SE students. The first of the two consisted of three female and one male teacher, while the second consisted of three female and three male teachers. All participants were White, and all had taught at the school for at least one year prior to participating in the focus group. These educators represented a broad range of departments (e.g., English and math).

2.1.1.3. Administrators

Four administrators participated in the final focus group, some of whom were integral to the creation of the program. All of these participants were White.

2.1.2. Procedure and Measures

Prior to the focus groups, both the district school board and IRB approval were obtained. Participants were recruited from a list provided by the leader of the P2P program, and participant consent was obtained prior to the focus groups. The researcher reviewed the form with the participants and answered their questions. The focus groups took place via video conference software and in person, all between 40 to 50 minutes in length. Each focus group was recorded for transcription purposes. Participants were offered a \$5 gift card as compensation for participation in the study. The focus groups were conducted to collect qualitative data from key people affected by and involved with the P2P program. While using semi-structured interviews to allow for flexibility and probing, participants were asked about their perception of the program and their experiences as a student or as an educator in relation to the P2P program (see Appendix A).

2.2. Study Two

2.2.1. Participants

2.2.1.1. Mentors

P2P mentors were included in the survey portion of the study. To be considered part of this group, students needed to be either currently or previously enrolled in P2P as a mentor and be a student at the school. The program head estimated that 120 students qualified and were invited to participate in this group. A total of 48 previous and 39 current mentors volunteered to participate. These participants were predominantly White (83%, $n = 71$). Of these students, 72% ($n = 62$) identified as female, and 2% ($n = 2$) identified as having a disability. Eight percent ($n = 7$) qualified for free or reduced lunches. These participants consisted of freshmen through seniors and were between the ages of 14 and 18 years old.

2.2.1.2. Mentees

P2P students who were currently participating or had previously participated as a mentee at the school were included in the study. Approximately 30 students qualified and were invited to participate, and 14 current students chose to participate. Sixty-four percent ($n = 9$) of these students identified as male. Though there were nine students who were shown the full demographic questions, there were variations in the number of students who answered each one. Of the seven participants who answered the race question, 86% ($n = 6$) reported that they were White. Three (33%) of the nine students who answered the ability status question identified as having a disability. Three (50%) of the six students who answered qualified for free or reduced lunches. These participants were between the ages of 14 and 19 years old and were freshmen through seniors.

2.2.1.3. GE Students

GE students who are current students at the school were included in the study. Approximately 1200 students qualified to participate in this group, and 676 chose to participate. These participants were predominantly White (78%, $n = 525$), 48% ($n = 327$) identified as male, and 10% ($n = 65$) identified as having a disability. Nineteen percent ($n = 128$) of the students qualify for free or reduced lunches. These participants span between freshmen and seniors and were between the ages of 13 and 18 years old.

2.2.2. Procedure

Prior to the initiation of this portion of the study, approval from both the district school board and IRB was received to deploy a set of online questionnaires during school. Before recruiting students, an opt-out form was sent to all parents via email from the school. This letter informed parents of the risks and benefits of their child's participation and allowed parents the

opportunity to return the form if they did not want their child to participate. This form was sent out approximately one week in advance to provide parents time to review the form. No opt-outs were returned.

To recruit students, the school provided time during the school day for students to complete the surveys. A slide with a QR code, a link to the survey, and the PI's contact information was displayed during a time of the school's choosing (e.g., homeroom, GE class). Students were able to complete the surveys either on their laptops or personal devices during the class period. Teachers were instructed not to answer student questions, not to encourage or discourage student participation, and only to direct students to contact the PI for any questions they had about the survey. Prior to answering survey questions, students were shown an assent form in Qualtrics. They were informed that there was little risk or benefit to them personally and were then asked whether they wanted to participate. Once they selected their willingness to participate, they were redirected to the study questions.

Members of the research team went in person to each participating school to collect data with SE students due to some mentees having disabilities that impacted their ability to complete an online survey. This also ensured that there was no support provided to the mentees that could have biased their responses to the survey questions. For these students, the research team described the assent form aloud to ensure that the students agreed to participate. These students received the opportunity to complete one of three surveys based on their ability to complete long-, medium-, or short-length surveys. Program heads pre-selected which survey they felt the student was able to finish. Further, the research team read mentee surveys aloud when it was requested. All short-length surveys were read aloud, and most were physically filled in by the research team. Most medium-length surveys required a great deal of assistance (e.g., read aloud,

questions explained, assistance selecting options). As for the long surveys, the majority of mentees were able to complete these independently. There was also an optional paper copy of the survey available to students who had the research team present for data collection.

There were no direct incentives provided to any of the students for their participation in the survey. There was, however, an incentive for the school. The school was offered \$150 to spend on the P2P program in exchange for their facilitation of the research, including time during the day for students to complete the survey, coordination of the research team coming to assist with some mentee surveys, and emails sent to families on behalf of the research team.

2.2.3. Measures

The survey questions were designed to elucidate the differences in how P2P impacts subgroups at the school (see Appendix B). The questionnaires included items formulated from insights and themes developed from the focus groups. The survey questions were designed to understand better the differences in student perceptions of the program within the school. All participants answered questions about their perceptions of people with disabilities and inclusion at their school. Mentors and mentees also responded to questions aimed at understanding whether they have seen changes in specific skills, such as independence and communication, due to P2P. For mentees, five students received the full-length survey, which included 13 items; three students received six items, and six students received three items. Additionally, all students received demographic questions. Both the long- and medium-length surveys included questions of race, gender, age, grade level, disability status, and whether they qualified for free or reduced lunches. Short surveys included only gender and grade level as demographic questions. These variations allowed students of differing support needs the opportunity to complete the survey that matched their capability and increased the inclusion of mentee participants in the current study.

3. RESULTS

3.1. Results Study One

3.1.1. Positionality Statement

Prior to presenting the results of this study, it is important to establish my background in relation to the topic. I have extensive experience working with and building relationships with individuals who have a diverse range of disabilities. Additionally, I have participated as a mentor in an earlier version of the Peer to Peer program, working directly with the program head. Beyond that, I am currently employed as a part of an inclusive postsecondary education program for students with intellectual disabilities. As a result of these experiences, I am heavily involved in the community that is attempting to implement these types of programs. I acknowledge that my experiences may have influenced this project, and I have relied on the support of my advisors to limit the effects of my biases and to aid me in the evaluation of the study's findings.

3.1.2. Plan of Analysis

An exploratory data-driven approach was taken in the analysis of the focus groups to help generate questions for the survey portion of the study. Specifically, the focus group transcripts were analyzed using inductive thematic analysis in order to identify reoccurring themes (Braun & Clarke, 2006). Transcriptions were read and then re-read, and initial codes were created as patterns were identified within the lines of data. From there, the codes were organized and revised to capture overarching themes that encompassed the data as a whole. The themes were merged, revised, and compared against the data for accuracy. The themes were then defined and finalized. All data was coded as a group to answer the general research question for study 1 (i.e., in what ways has the P2P program affected those involved with the program?). There were five

themes identified from the completed coding process. Finally, exemplar quotes for each theme were selected from the transcripts.

3.1.3. Genuine Connections

One central recurring theme throughout all focus groups was the perceived *genuine connections* that have been built between mentors and mentees within the P2P program. One administrator explained that the program began because “parents were saying, ‘I want my kid at the end of their high school career to have someone they can call their friend.’” The program was developed around this idea of building relationships among students, and administrators and teachers alike recall not knowing initially how authentic the connection would be between mentors, mentees, and the rest of the school. One teacher explained that they “couldn’t anticipate that students would basically start to see it not as a class anymore [because] they’ve just become friends.” Another teacher explained that they “don’t think it stops after they end the class,” with students “putting time into these relationships.” The past mentors echoed this sentiment, saying that “the connections built with Peer to Peer are way different and life lasting.” Even though the program’s initial goal was to create these connections, the teachers and administrators repeatedly brought up that they “just never thought that [the students] would be able to build relationships like that.” One teacher explained, “When those relationships are continuing after high school and into college, that is how you know your program is impacting [students] how you want.”

3.1.4. Changes in School Culture

Another theme that participants cited as a result of the program was the *change in school culture*, specifically regarding inclusion. Each focus group touched on the gradual shift towards inclusivity that was a result of more students joining P2P. One teacher explained this shift, saying, “Kids talk, and when they have a good experience, they are going to say, ‘let’s do this’

[and that] is what grows the program.” Another teacher emphasized that “within the whole building, they see the value of the [students with disabilities]. They are so immersed in the culture here that is so accepting and so inclusive.” One of the past mentors said, “It’s just normal. I don’t want to say normal, but they’re just all included. Everybody’s included now.” This culture change expands into what language is tolerated at the school. One administrator mentioned that “you don’t hear those same [mean] comments about students with disabilities [...] they are few and far between.” The other administrators shared this sentiment, explaining that a majority of students do not tolerate those types of comments at their school. One teacher noted, “You never saw that before Peer to Peer.” A mentor summarized this culture change by saying, “Peer to Peer connects the missing link between students with disabilities and students without disabilities to create a culture of inclusion.”

3.1.5. Natural Peer Support

The theme of *natural peer support* was repeatedly mentioned throughout the focus groups. Teachers explained that the program “organically morphed” and “evolved” into naturally occurring peer support. One teacher noted that “parents would rather have their student have a natural support [...] than adult support.” Another added that mentors are “way more natural [than aids]” and that their support creates a “natural learning process and natural connection.” A teacher described paraprofessional support as being “so much better with someone who is their own age and speaks the same language.” While these supports began as a program-facilitated connection, this formal process was not always necessary. Teachers and mentors alike mentioned that mentees “are being found in natural spots like student sections, lunch tables, managers of teams, sports, [and] after-school activities.” One teacher mentioned that she could look into the student section at a sporting event and not know whether the mentee was there with a mentor or

just with other peers. One mentor explained that it is easy to create this natural support and environment because “all you have to do is be a high school student and then bring your [mentees] with you. It was natural things like that.”

3.1.6. Strong, Core Mentors

Each group talked about the importance of having *strong, core mentors* who lead the program. Administrators explained how they “handpicked” the first group of students for the program. “[We] found the popular kids, the most desired kids, the student-athletes, people that were influencers at [the school], and that is what created that culture out of the gate. Every student saw those well-respected kids being part of this, and it [...] encourag[ed] others to do so.” The mentors mentioned that the like-mindedness of the initial students in the program played a pivotal role in influencing program outcomes. One explained that “most people in Peer to Peer [...] aren’t just doing it [because] they want to look like a good person. They truly do actively want to be a good person and to include others.” Another reflected on this, saying, “Everyone was like-minded, and they’re pretty much there for the same reasons, and they have the same heart.” Beyond intentions, the teachers emphasized the commitment of the core students. They stressed that the program would not have worked initially without the “strong student buy-in.” Overall, the focus groups alluded to the fact that a portion of the program’s success can be attributed to the selection of a strong group of core students.

3.1.7. Dedicated Program Head

Each group repeatedly mentioned the importance of a *dedicated program head* and their role in creating what they consider an effective program. The administrators describe the head as the “right person with the right skill set and the right attributes.” They mentioned that the head had the drive and the connections throughout the school that were necessary to make the

program successful. One teacher explained that the program “is way more successful here because of [the program head].” The mentors felt similarly. They stated that the head “made it easy for us to include everybody.” Mentors expressed that they thought they had consistent support and felt valued by the program head for the work that they were doing. Similar to the strong student core, many participants credited the program head as a key factor behind the program’s positive outcomes.

3.2. Results Study Two

3.2.1. Plan of Analysis

The goal of the survey analysis was to examine the frequency of responses for students and to compare responses across groups when questions overlapped. To make these comparisons, independent sample *t*-tests were conducted to compare the means of these groups and to test for significant differences in these means. These tests highlight the similarities and differences in views across groups and allow some insight into which groups are affected in what ways by the program.

3.2.2. Mentee Responses

Mentees responded to a series of questions about their experiences and perceptions related to their school and the P2P program. They answered questions with a 3-point scale including *Yes*, *Somewhat*, and *No* as response options. Not all the mentees received all the questions due to the variations in surveys; therefore, percentages are based on the total that received the question. When asked broadly about inclusion, 88% (7 of 8) responded that their school accepts people with disabilities. Explicitly focusing on P2P, 86% (12 of 14) of the mentees responded that they liked the program. Students were questioned about program-related outcomes, and approximately 80% (4 of 5) of the mentees said that their social skills had

improved as a result of the program. Sixty percent (3 of 5) responded that they pay more attention in class, are more independent, try new things more, and feel like better students because of P2P. Overall, 88% (7 of 8) of students reported that they like school a lot better because of P2P.

Mentees were asked specifically about their relationships built through P2P. Eighty-eight percent (7 of 8) of mentees said that they have more friends because of P2P. Specifically, 93% (13 of 14) reported that their mentor is their friend. Results were split when it came to the level of familiarity felt by mentees. When asked whether they felt close to their mentors, 40% (2 of 5) of mentees said no, while another 40% said they felt close. It is important to note that five of the mentees who answered that their mentor is their friend did not receive the question of whether they feel close to their mentor.

3.2.3. Mentor Responses

Mentors responded to a series of statements about personal changes and experiences with the P2P program. They were asked to rate their agreement on a 5-point Likert scale from *Strongly Disagree* to *Strongly Agree*. Approximately 45% ($n = 39$) of the mentors strongly agreed that they had seen positive changes in themselves due to their participation in the program. Sixty-five percent ($n = 56$) of mentors strongly disagreed that the program has had a negative impact on them. In response to the statement, “My involvement with the program has not changed my life,” 40% ($n = 34$) of the mentors responded *Strongly Disagree*, and 37% ($n = 31$) responded with *Disagree*. When asked whether the program had given them skills that were applicable beyond the class, 45% ($n = 39$) rated that they agreed. Mentors were also asked about changes they had seen in relation to their experiences with people with disabilities. A majority of mentors (52%, $n = 45$) strongly agreed that their perception of people with disabilities had

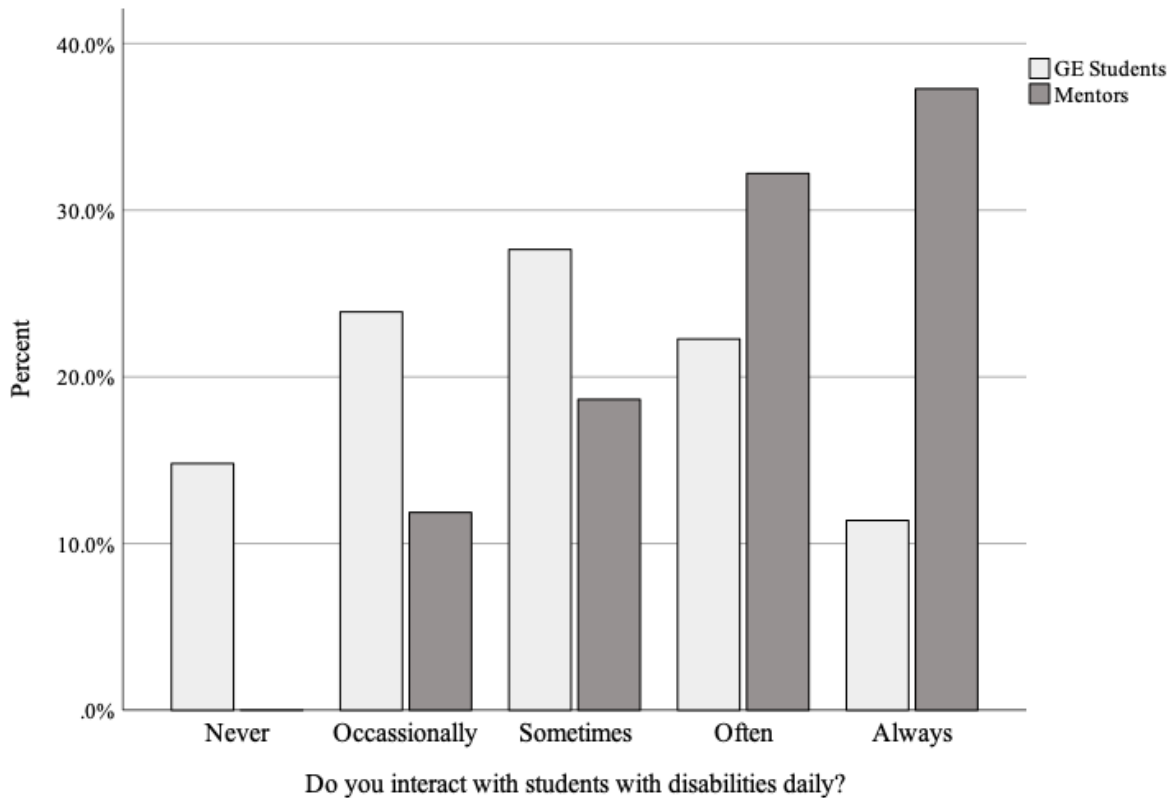
changed for the better. When posed with the statement “I am more accepting of people with disabilities,” 56% ($n = 48$) of mentors responded *Strongly Agree*. Finally, when asked whether they find it easier to interact with their peers who have disabilities, 48% ($n = 41$) strongly agreed, and 41% ($n = 31$) agreed that it is easier.

3.2.4. Comparing GE Students’ and Mentors’ Responses

Mentors and GE students both responded to a question about whether students with disabilities are isolated at their school. There was a significant difference in responses between the GE students and the mentors, $t(668) = 2.67, p = .01, d = .36$. While this is a small effect size, mentors ($M = 1.51, SD = .817$) were less likely than GE students ($M = 1.87, SD = 1.02$) to report that students with disabilities are isolated at their school. The next item assessed whether GE students and mentors see SE students throughout their day at school. There was not a significant difference between student responses, $t(668) = -1.53, p = .13, d = .21$. Mentors ($M = 4.51, SD = .70$) and GE students ($M = 4.32, SD = .92$) both predominantly reported they often (28.1%) or always (56.3%) see students with disabilities throughout their day at school. To probe students further, they were asked whether they interact with students with disabilities daily. There was a significant difference between mentor and GE student responses, $t(74.92) = -7.27, p < .001, d = .85$. Mentors ($M = 3.95, SD = 1.02$) predominantly reported that they more often interact with students with disabilities daily than GE students ($M = 2.92, SD = 1.23$). See Figure 1.

Figure 1

Daily Interactions



Students were also questioned about their interactions with students with disabilities.

There was a significant difference between the groups when asked whether it was easy to interact with their peers who have disabilities, $t(79.57) = -5.11, p < .001, d = .55$. Mentors ($M = 4.22, SD = .79$) reported more often than GE students ($M = 3.65, SD = 1.06$) that it was easy for them to interact with their SE peers. When followed up with whether they enjoyed interacting with these peers, these groups were again significantly different, $t(90.90) = -7.78, p < .001, d = .71$. Mentors ($M = 4.47, SD = .68$) responded that they more often enjoy these interactions than GE students ($M = 3.70, SD = 1.11$). See Figure 2. Another question asked whether they thought people with disabilities were as capable as they are. The groups significantly differed in their responses to

this question, $t(673) = -3.79, p < .001, d = .52$. Mentors ($M = 4.36, SD = .89$) reported that they more often thought people with disabilities are as capable as they are than reported by GE students ($M = 3.80, SD = 1.10$). See Figure 3.

Figure 2

Interaction Enjoyment

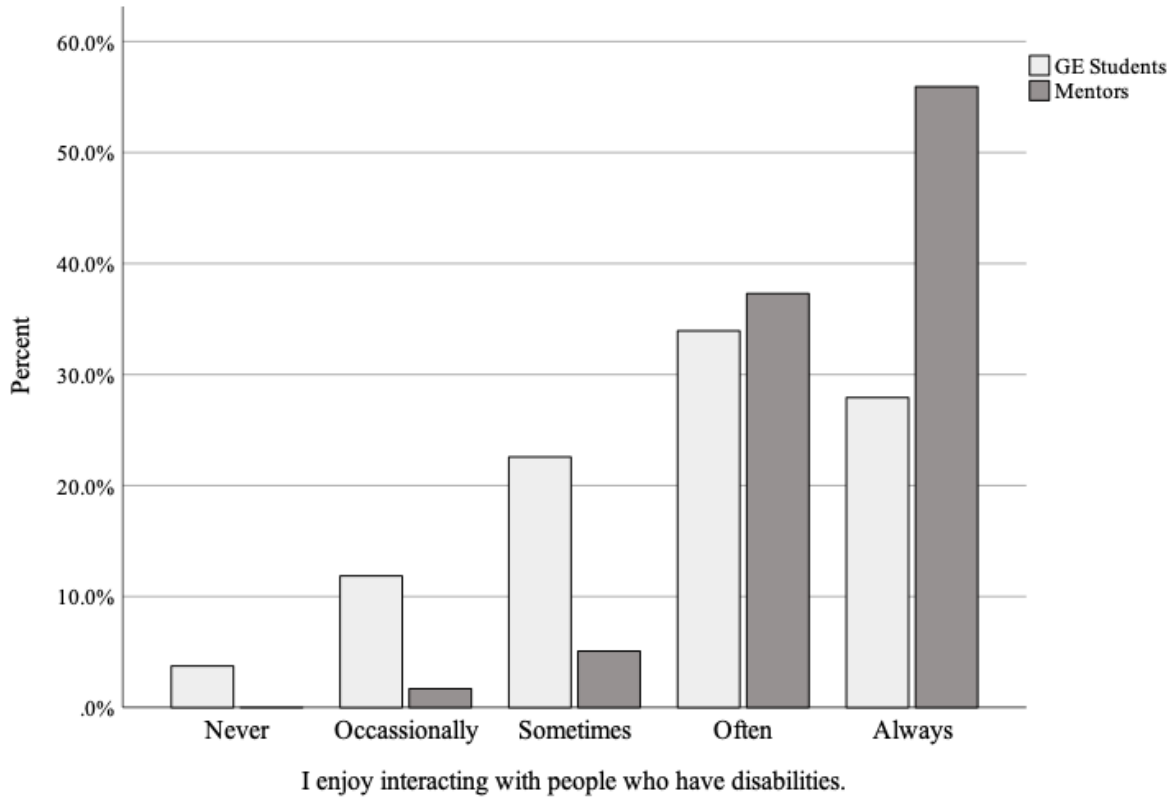
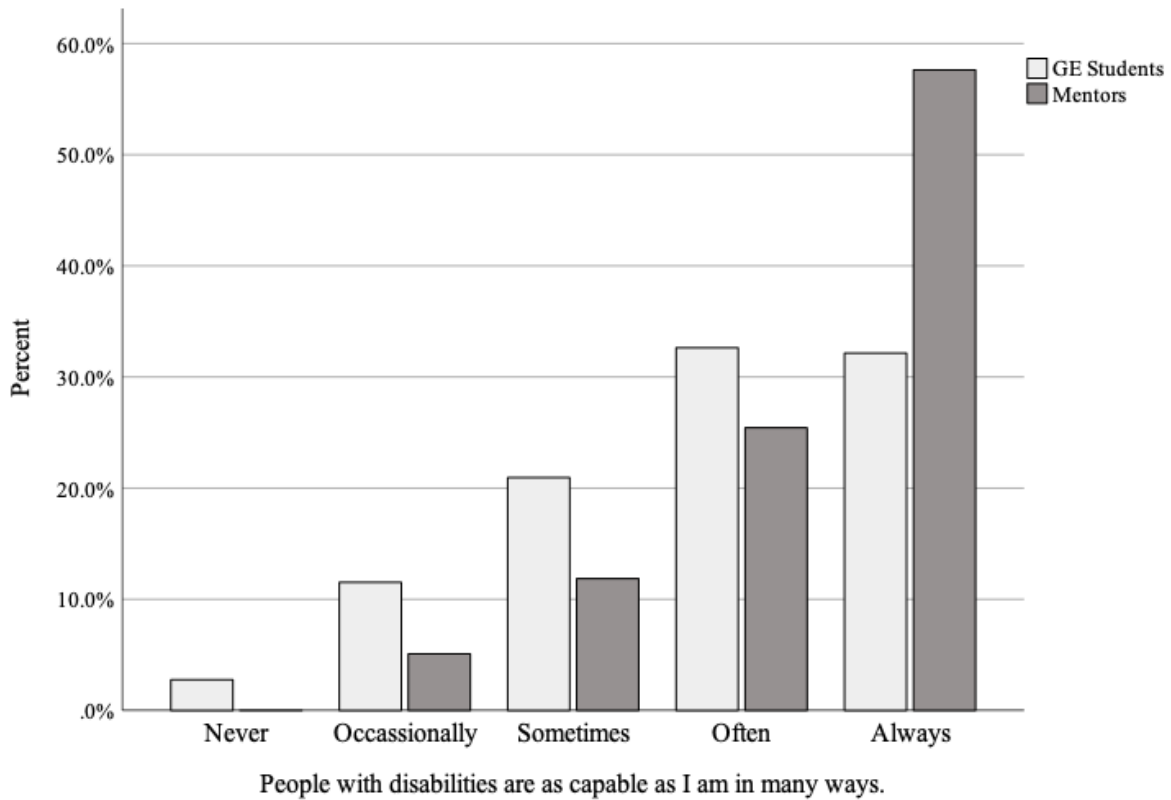


Figure 3

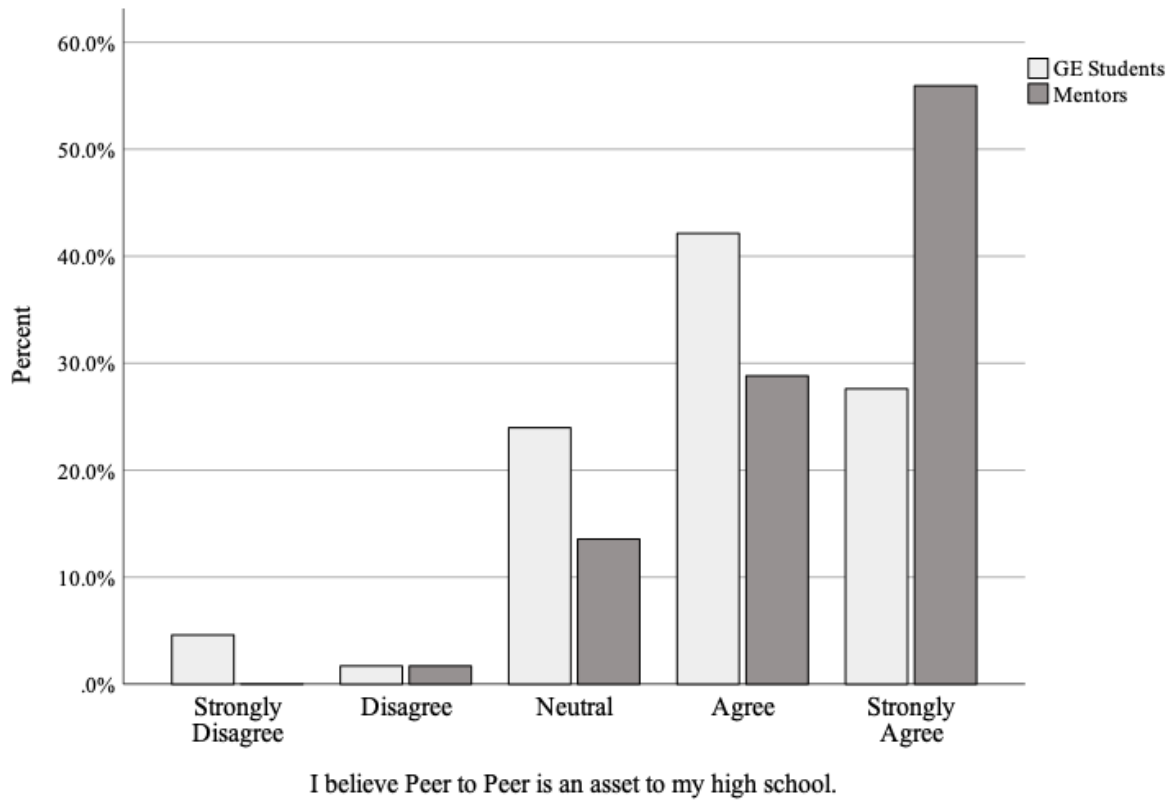
Capabilities of People with Disabilities



For the next set of questions, GE students received these questions only if they indicated that they were familiar with the P2P program. For the first item, students rated their agreement to whether they believed P2P was an asset to their school. The mentors and GE students significantly differed in their responses, $t(470) = -3.90, p < .001, d = .54$. Mentors ($M = 4.39, SD = .79$) were more likely to agree that P2P was an asset than GE students ($M = 3.86, SD = .99$). See Figure 4. Students rated their agreement to whether P2P could be doing more for their school, and the groups did not significantly differ in their response, $t(68.86) = -1.55, p = .125, d = .26$. Students predominantly reported they were neutral (53.3%) to whether P2P could be doing more for their school.

Figure 4

Peer to Peer is an Asset

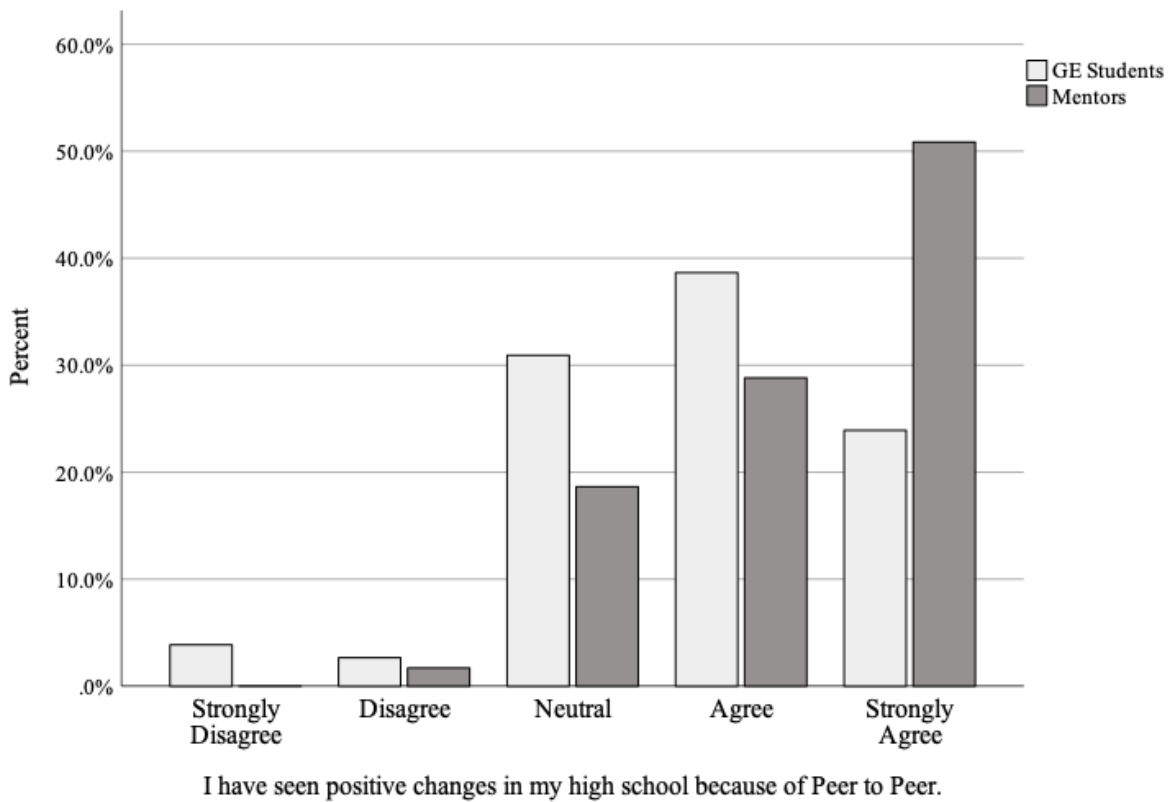


When students were asked whether they agreed that P2P was an inconvenience to their school, the two groups had a significant difference in their responses, $t(78.05) = 2.19, p = .03, d = .28$. This, however, was a relatively small effect size. Mentors ($M = 1.43, SD = .82$) were slightly more likely to disagree that P2P is an inconvenience than GE students ($M = 1.69, SD = .91$). Students also answered whether they had seen positive changes in their high school because of the program. The groups were significantly different, $t(471) = -3.96, p < .001, d = .55$, with mentors ($M = 4.29, SD = .83$) more likely to agree that they have seen positive changes in comparison to the GE students ($M = 3.76, SD = .97$). See Figure 5. When asked whether they had seen positive changes in how their teachers teach, both groups responded similarly, $t(470) = -$

1.85, $p = .06$, $d = .26$. Students predominantly reported they were neutral (47.4%) or agreed (26.4%) that P2P has positively changed how teachers teach. Finally, both groups were asked whether they believed they benefited from P2P. The groups significantly differed, $t(470) = -11.76$, $p < .001$, $d = 1.64$, with mentors ($M = 4.25$, $SD = .82$) being more likely to agree that they have benefited than GE students ($M = 2.65$, $SD = 1.00$).

Figure 5

Positive Changes



4. DISCUSSION

4.1. Connecting to the Contact Hypothesis

Focus group participants described the need for a program like P2P stemmed from a lack of exposure to individuals with disabilities. Mentors expressed that they had a desire to connect with their peers who had disabilities but lacked opportunity and guidance on how to make that connection. They explained that the program facilitated the connection and broke down the perceived barrier between students with and without disabilities. This may explain why mentors reported in their surveys that it was often easier and more enjoyable to interact with their peers with disabilities than GE students. The focus groups explained that, with this barrier gone, there was a shift that led to *changes in school culture* and an increase in the inclusion of students with disabilities overall. The mentees' surveys supported this, showing that most mentees believe that their school is inclusive for individuals with disabilities. Likewise, the mentors' surveys showed that most mentors agreed that their perceptions of people with disabilities improved as a result of P2P, and they have become more accepting of their peers with disabilities. While it is not clear whether the increased contact or the education portion of the program is contributing to these changes in perceptions, mentors attributed it to their participation in the program.

When comparing mentor and GE student surveys, both disagree that students with disabilities are isolated at their school. They also predominantly reported that they often or always see students with disabilities throughout their day at school. This speaks to the inclusiveness of the overall school culture, showing that the majority of students believe that students with disabilities are included and visible at their school. However, their responses differ when asked about interactions with peers. Mentors reported interacting with their peers with disabilities more often than the GE students. As previously stated, mentors rated these

interactions as easier and more often enjoyable than GE students. Additionally, mentors, more often than GE students, reported that people with disabilities are as capable as they are in many ways. The differences in these perceptions are clear. While the majority of students are reporting that students with disabilities are included and visible, it is predominantly the mentors who are reporting more favorable views of individuals with disabilities.

Based on the contact hypothesis, it could be argued that the differences in student perceptions are a result of the increased contact with students with disabilities (MacMillan et al., 2014). According to the contact hypothesis, an increase in contact with individuals with disabilities leads to possible increases in familiarity and empathy (Dovidio et al., 2003; MacMillan et al., 2014), along with decreasing anxiety and prejudice towards individuals with disabilities (Armstrong et al., 2017; Crystal et al., 2008; Dovidio et al., 2003). In support of this, a decrease in anxiety around people with disabilities was mentioned in the focus groups. Both teachers and mentors recalled a fear or uncertainty related to interacting with students with disabilities. They cited P2P as a source of confidence to overcome these feelings. While this study is unable to make causal claims, there is evidence to support that the mentors in the P2P program may differ in their experiences and views of people with disabilities in comparison to their peers who do not participate in the program.

4.2. Increasing Relatedness

Similar to other PMIIIs, the focus groups and survey responses revealed P2P has increased perceived social connection for students with disabilities both during and beyond the program (Asmus et al., 2017). This was demonstrated in the focus groups by the themes of *natural peer support* and *genuine connections*. The focus groups revealed that the participants believed that relationships built from P2P were not superficial or limited to the class environment. They

thought the relationships went beyond the requirements of the class and became genuine and enduring. Additionally, the groups reported that the support became more natural over time. They described that they believed that students no longer needed the coordinated effort of the P2P program to provide mentees with support in different activities. They also explained that SE students appeared to become a part of the student body and received support not just from mentors but GE students as well. While the groups did not list specific examples of how this connection between students was built, they attributed it, in part, to a natural evolution that resulted as students spent more time together and more students joined the program.

This rapport is also highlighted in the surveys with the questions on relationships built through P2P. Most mentees reported that they believed their mentor was their friend. However, the mentees were split on whether they felt close to their mentor. Two students felt that they were close to their mentor, while one felt somewhat close, and two others did not feel close. There are two points to consider with this finding. First, the wording of the question itself may limit the ability to interpret these results. The question specifically was, “Do you feel close with your mentor?” and included examples of sharing feelings and thoughts. It is essential to consider whether the nuance of the question was lost on these students. Another consideration for this question is the small sample size. A larger sample size may show a trend that the smaller sample was unable to reveal. With these considerations aside, this question possibly reveals while students consider their mentors as their friends, the depth of the relationships built in P2P may be inconsistent between different mentors and mentees.

Overall, both the focus groups and the survey responses revealed that, to some extent, students are attributing the perceived connection between students with and without disabilities to P2P. Some students appear to identify these relationships as more than a mentor and mentee

relationship, suggesting that there may be differences in reported connections dependent on relationships outside of P2P. It may also be possible that by decreasing mentees' sense of alienation, inclusive peer mentoring may increase their sense of relatedness and belonging (Deci & Ryan, 2000). However, questions remain about the quality and depth of the relationship between these peers, which should be considered in future studies.

4.3. Increasing Competence

In the surveys, mentees were asked about improvements in a variety of different competencies related to program outcomes. Similar to previous findings (e.g., O'Hagan et al., 2023), a majority of mentees reported that they experienced an improvement in their social skills as a result of the program. When asked about academic-related outcomes, three-fourths of the mentees also responded that they pay more attention in their classes and feel like better students. It is not clear what precisely is influencing these results, but it may be attributed to students having a stronger desire to participate in class when they feel more connected to their peers in their classes. It is also possible that students reported an improvement in these skills due to a natural bias toward social desirability.

Mentees also predominantly reported that they are more independent and try new things more often as a result of P2P. The focus groups mentioned that students with disabilities, prior to P2P, very rarely were seen at after-school activities such as at sporting events or in clubs. With the program, teachers and mentors reported a significant increase in their presence at after-school events. The implication was that P2P may have provided students with more access to new opportunities. One teacher explained in the focus groups that mentors often refuse to do some of the tasks for their mentees that a paraprofessional may have done for them. They elaborated that this refusal often pushed mentees to do more things for themselves. It is possible that the

program may have offered more options for independent skills to be cultivated or that students are generally offered more opportunities for independence as they age. Overall, mentees report that P2P, like other PMIs, may be contributing to an improvement in social and academic skills (Odom et al., 2003; O'Hagan et al., 2023)

Beyond the competence of the mentees, the mentors from the focus group talked about their lack of knowledge on how to interact with their peers who had disabilities. They spoke of P2P providing them with the knowledge and confidence they needed to interact with their peers. This is similar to findings by O'Hagan et al. (2023), who found that mentoring was related to improved confidence and increased open-mindedness for mentors. A large part of the P2P program is educating students about different disabilities, with the goal of developing the skills needed to interact with a diverse set of students. In the surveys, most mentors agreed that the program made it easier for them to interact with their classmates who have disabilities. Most also agreed that the program gave them skills that were useful beyond the class. This demonstrates similarities to previous findings that show that PMIs support skill and career development in mentors (O'Hagan et al., 2023; Travers & Carter, 2022). Taken together, there is evidence that both mentors and mentees experienced a perceived improvement in their competence that they attribute to the program.

4.4. Overall Perceptions of Peer to Peer

Across the surveys, all students who knew about the P2P program were asked about their perceptions of the program. Mentees predominantly reported that they liked the program and that they liked school better because of the program. Additionally, most mentors agreed that they have seen positive changes in themselves because of the program, disagreeing that the program has had a negative impact on them. They also primarily believe that the program has changed

their lives. Overall, both mentees and mentors reported positive views of the program, specifically agreeing that they have benefitted or changed as a result of the program.

Mentors and GE students had varying levels of agreement across their compared questions. Most mentors strongly agree, and most GE students agree that P2P is an asset to their school. They also predominantly agree that they have seen positive changes in their school because of the program, though mentors were more likely to agree strongly. GE students are reporting that they are seeing an impact of the program, but not to the same extent as the mentors are reporting. It is possible that mentors may have closer contact with the changes that are occurring, or they are perceiving a more significant impact due to their participation in the program and their desire for the program to be effective. This difference is even more prevalent when it comes to the benefits of the program. When asked whether they benefitted from the program, mentors predominantly reported that they agree and strongly agree that they have benefitted, while GE students were mostly neutral on this question. While this could be expected, as GE students are not intended to be directly impacted by the program, it may also show the bias of the students in the program. The groups were similar, however, with both mainly responding neutrally as to whether P2P could be doing more for their school and whether they have seen positive changes in their teacher's teaching because of the program.

The focus groups revealed some of the aspects of the program that may have led to the perceived benefits. The groups repeatedly mention that having a *dedicated program head* and *strong core mentors* were a critical part of what allowed the program to have a strong start. The administration focus group explained that the program head was well-connected within the school, implying she was able to build the support network that the program needed to be successful. Mentors mentioned that the head provided students with consistent support that made

it easy to include their peers with disabilities. It appears both the skills of the program head and her social status within the school were seen as important influences of the program to the participants. Additionally, all groups explained that the program specifically selected visible students who would participate in the program for what they deemed were the right reasons. The hand-selected first set of students has been noted as a catalyst for the expansion of the program and inclusion at the school. In combination, these mentors and the program head were cited as possible sources of the changes the students reported.

4.5. Implications

The present study demonstrated some consistency with previous research that has found that inclusive peer mentoring programs can have positive effects on relational and skill-based outcomes for mentees (Hillier et al., 2019; Kefallinou et al., 2020). Furthermore, these programs also influence the perceptions of the mentors involved in the program (Carter et al., 2001; Ouellette-Kuntz et al., 2010). Specifically, this study revealed that those in the P2P program report more contact with individuals with disabilities, along with a greater level of ease and enjoyment they experience within these interactions. Overall, students, teachers, and administrators reported that their school was inclusive and that P2P was an asset to their school. All things considered, there are many possible implications of these findings. First and foremost, there are significant implications for the students involved in the program. While there were no pre and post-tests to determine the actual change among students exposed to the program, there is a clear difference in the experiences and views of mentors and GE students. These findings suggest that there is a difference between students who participate in the program and students who do not. Whether this can be attributed to the curriculum of the program or the characteristics

of the participants is worth investigating further to understand what aspects of the program are worth investing in to expand on the perceived changes the participants are experiencing.

As for mentees, they are reporting skill gains in addition to relationships built as a result of the program. With this perceived change being attributed by students to the program, schools could possibly benefit from utilizing peers to encourage these social and academic outcomes in their SE students. This would also help to provide consistent support in the face of the current shortage of paraprofessionals and SE teachers. Having a peer to provide support may supplement this shortage while also promoting important relational outcomes for students. Overall, the study implies a further need to evaluate the program to understand whether the program is leading to changes in student perceptions. With further causal evidence of the program's effect, the replication and implementation of the P2P program in other schools may help promote the inclusion and acceptance of students with disabilities. If that evidence is found, replicating this program may allow other schools to experience changes in school inclusion, in addition to mentor and mentee outcomes.

4.6. Limitations

One limitation of the first portion of the study was the composition of the focus groups. Because the study targeted a specific school, all participants were somewhat familiar with each other, which means that the focus groups lacked the anonymity that is usually desired. This may have resulted in participants feeling as though they were unable to disagree with the opinions of their focus group (Sim & Waterfeild, 2019). All focus groups were largely unanimous in their views of the program, which possibly highlights this concern. To overcome this limitation, separate interviews could be conducted with each participant to investigate whether there are differences in perceptions of the program and its effect on students. Additionally, these groups

consisted of participants who were self-selected to join the study, signifying that there is a risk of self-selection bias (Heckman, 2010). It is possible that those who chose to participate may have had a more distinct and impactful experience than those who did not choose to participate. This indicates the focus groups may have captured only one extreme of experiences related to the program.

One limitation of the second portion of the study is the mentee sample size and surveys. The mentee surveys were designed to ensure that most mentees of any ability could have the opportunity to answer a few questions for the study. While this ensured the inclusivity of the survey, it meant that a significant number of questions for this group were responded to by very few students. This is a considerable concern when working with this specific population. People with disabilities are already a minority group who are often left out of research due to the inaccessibility of survey materials or study designs (Rios et al., 2016). It is often easier for researchers to utilize parent and teacher reports in place of self-report measures for individuals with disabilities. While parent and teacher reports are valuable, it limits the perspective of students with disabilities. This study sacrificed the number of questions and the size of the sample for the direct perspective of individuals with disabilities.

Another limitation of the study is that it measured student perceptions rather than objective measures of change. The study relied on students' subjective experiences and asked them to reflect on changes in themselves over time. This specifically led to a concern for the social-desirability bias of the respondents. It is possible that students over-reported the positive effects of the program and modified some of their responses to fit what they perceived was expected of them. This is especially a concern for the mentor responses. Another concern for this group is whether the mentors were fundamentally different from the GE students. It is possible

that the mentors were predisposed to being inclusive and already viewed students with disabilities more positively. This would explain the differences in the responses between mentors and GE students. With more objective measures and a longitudinal study design, these concerns would be addressed and minimized.

A strength of this study is the mixed method design. The focus groups offered the flexibility for participants to direct the conversation and reveal aspects of the program and its outcome that they found important. Additionally, the groups presented traits they deemed essential to the success of the program, which allowed for nuance that the surveys did not offer. The focus groups also provided insight into which topics to target with the surveys. The surveys then presented the ability to compare views across groups, which highlighted the differences between those who participated in the program and those who did not. Finally, the surveys ensured the collection of diverse perspectives from a large portion of students for a more complete picture of the program's presence within the school. Overall, the surveys provided more objective data than the focus groups allowed for, strengthening the study.

4.7. Future Directions

There are many considerations for future research. First and foremost, a longitudinal study should be conducted in order to better assess the causal effects of the program. This would include taking baseline measures of new mentors and mentees and following them throughout the school year. A multi-wave approach could encompass the measurable changes in students that result from the program, which may corroborate the perceived change reported in this study. With this longitudinal approach, it is also important to involve measures to better assess specific program components that may be contributing to changes in student outcomes. Mentee outcomes such as academic and social skills may be more thoroughly measured and complemented with a

teacher or parent report measure. From a theoretical standpoint, the study would benefit from the addition of measures of autonomy to expand on the findings related to BPNT. Additionally, more comprehensive measures of mentor and GE students' perceptions of and biases toward individuals with disabilities may facilitate a better understanding of any changes the program is having on student views. Finally, future research should include measures of relationship quality. With the mixed findings from mentees on friendship and closeness, it is important to understand the complexity behind the mentor and mentee relationship and how it may be influencing student perceptions of the program and outcomes.

4.8. Conclusions

This study focused on the P2P program and investigated whether there were perceived effects of the program on high school students. Overall, it was reported that students with disabilities are included at their school. When asked about specific interactions and perceptions of students with disabilities, mentors reported that they tended to enjoy their interactions more and tended to view students with disabilities as more capable than general education students. As for program outcomes, mentors and mentees reported that they experienced changes in different competencies and social connections as a result of P2P. These findings suggest that programs such as P2P may prove beneficial for inclusion in high school settings. Future research should investigate the causal effects of the P2P program to strengthen the current study's findings.

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APPENDIX A. QUESTION GUIDE FOR FOCUS GROUPS

Questions for Past Mentors

- How did you first learn about Peer to Peer?
- What stood out to you most about Peer to Peer?
- What is your overall impression of the program?
- How is your life different because of your involvement in Peer to Peer?
- What changes did you see in your time in Peer to Peer? Did you notice changes in your peers, teachers, school, etc.?
- Has Peer to Peer influenced any career or academic plans?
- What do you feel you took away from Peer to Peer? Did you gain any skills or knowledge?
- What is Peer to Peer doing well? Why do you think this is?
- Who is benefiting the most from Peer to Peer?
- What part of Peer to Peer could improve? Why do you think that is?
- Who, if anyone, is benefiting the least from Peer to Peer?
- Do you still communicate with people from Peer to Peer?
- Is there anything else you would like to comment on?

Questions for Special and General Education Teachers

- When did you first learn about or get involved with Peer to Peer?
- What does your involvement look like?
- What is your overall impression of the program?
- How has your classroom changed since Peer to Peer?
- How have student interactions changed since Peer to Peer?

- What changes have you seen in the school because of Peer to Peer? Did you notice changes in students, teachers, the school, etc.?
- Has Peer to Peer influenced how people interact with students with disabilities?
- What is Peer to Peer doing well? Why do you think this is?
- Who is benefiting the most from Peer to Peer?
- What part of Peer to Peer could improve? Why do you think that is?
- Who, if anyone, is benefiting the least from Peer to Peer? Why do you think that is?
- Is there anything else you would like to comment on?

Questions for Administrators:

- When did you first learn about or get involved with Peer to Peer?
- What does your involvement look like?
- What is your overall impression of the program?
- What areas have you seen built and or benefit from having a peer-to-peer program?
- Has Peer to Peer influenced school budgets and staffing? If so, how?
- How has Peer to Peer impacted your job?
- What is Peer to Peer doing well? Why do you think this is?
- Who is benefiting the most from Peer to Peer?
- What part of Peer to Peer could improve? Why do you think that is?
- Who, if anyone, is benefiting the least from Peer to Peer? Why do you think that is?
- Is there anything else you would like to comment on about the program?

APPENDIX B. SURVEY QUESTIONS

Questions for Mentors

Select the option that best answers the following questions about your school.	Never	Occasionally	Sometimes	Often	Always
Do people try to include everyone?					
Are students with disabilities isolated?					
Do you see students with disabilities throughout your day at school?					
Do you interact with students with disabilities daily?					

Select the option that best answers the following questions about you.	Never	Occasionally	Sometimes	Often	Always
It is easy to interact with my peers who have disabilities.					
I enjoy interacting with people who have disabilities.					
People with disabilities are as capable as I am in many ways.					

How much do you agree with the following statements about the Peer to Peer program?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I believe Peer to Peer is an asset to my school.					
I believe Peer to Peer could be doing more for my school.					
I believe Peer to Peer is an inconvenience to my school.					
I have seen positive changes in my school because of Peer to Peer.					
Peer to Peer has positively changed how teachers teach.					

Questions for Mentors (Continued)

How much do you agree with the following statements about your experience in the Peer to Peer?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I benefited from it.					
I have seen positive changes in myself due to my participation.					
It has had a negative impact on me.					
My involvement has not changed my life for the better.					
It has given me skills that are useful beyond the class.					
Because of Peer to Peer, I am more accepting of people with disabilities.					
Because of Peer to Peer, my perception of people with disabilities has changed for the better.					
Since joining Peer to Peer, I find it easier to interact with my peers who have disabilities.					

Questions for General Education Students

Select the option that best answers the following questions about your school.	Never	Occasionally	Sometimes	Often	Always
Do people try to include everyone?					
Are students with disabilities isolated?					
Do you see students with disabilities throughout your day at school?					
Do you interact with students with disabilities daily?					

Select the option that best answers the following questions about you.	Never	Occasionally	Sometimes	Often	Always
It is easy to interact with my peers who have disabilities.					
I enjoy interacting with people who have disabilities.					

People with disabilities are as capable as I am in many ways.					
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How much do you agree with the following statements?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I believe Peer to Peer is an asset to my school.					
I believe Peer to Peer could be doing more for my school.					
I believe Peer to Peer is an inconvenience to my school.					
I have seen positive changes in my school because of Peer to Peer.					
Peer to Peer has changed how teachers teach for the better.					
I benefited from Peer to Peer.					

Questions for Mentees

Please select the best answer to the following questions.	No	Somewhat	Yes
Does your school include everyone?			
Does your school accept people with disabilities?			
Do you like Peer to Peer?			
Have your social skills gotten better because of Peer to Peer?			
Do you have more friends because of Peer to Peer?			
Since Peer to Peer, are you more independent?			
Since Peer to Peer, do you try new things more?			
Since Peer to Peer, do you introduce yourself to new people more?			
Since Peer to Peer, do you pay more attention in class?			
Is your mentor your friend?			
Do you feel close with your mentor? (for example, share feelings and thoughts)			
Does Peer to Peer help you feel like a better student?			

Questions for Mentees (Continued)

In Peer to Peer...	Never	Somewhat	A lot
Do you like school better?			

Questions for Current Mentees- Modified

Please select the best option for the following questions.	No	Somewhat	Yes
Does your school include everyone?			
Does your school accept people with disabilities?			
Do you like Peer to Peer?			
Do you have more friends because of Peer to Peer?			
Is your mentor your friend?			

In Peer to Peer...	No	Somewhat	Yes
Do you like school better?			

Questions for Current Mentees- Extra Modified

Please select the best option for the following questions.	No	Somewhat	Yes
Do you like Peer to Peer?			
Is your mentor your friend?			

APPENDIX C. SURVEY RESPONSES

Table C1

Mentee Perceptions of P2P

Questions	No	Somewhat	Yes	<i>N</i>
Does your school accept people with disabilities?	0.0	12.5	87.5	8
Do you like Peer to Peer?	7.1	7.1	85.7	14
Have your social skills gotten better because of Peer to Peer?	0.0	20.0	80.0	5
Do you have more friends because of Peer to Peer?	0.0	12.5	87.5	8
Since Peer to Peer, are you more independent?	20.0	20.0	60.0	5
Since Peer to Peer, do you try new things more?	0.0	40.0	60.0	5
Since Peer to Peer, do you introduce yourself to new people more?	0.0	25.0	75.0	4
Since Peer to Peer, do you pay more attention in class?	20.0	20.0	60.0	5
Is your mentor your friend?	7.1	0.0	92.9	14
Do you feel close with your mentor? (for example, share feelings and thoughts)	40.0	20.0	40.0	5
Does Peer to Peer help you feel like a better student?	20.0	20.0	60.0	5
Do you like school better?	0.0	12.5	87.5	8

Note. Mentees' percentages of responses to statements about P2P.

Table C2*Mentor Perceptions of Inclusion*

Questions	Never	Occasionally	Sometimes	Often	Always
Do people try to include everyone?	0.0	1.2	3.5	51.2	44.2
Are students with disabilities isolated?	61.6	24.4	10.5	2.3	1.2
Do you see students with disabilities throughout your day at school?	1.2	0.0	8.1	24.4	66.3
Do you interact with students with disabilities daily?	0.0	8.1	14.0	30.2	47.7
It is easy to interact with my peers who have disabilities.	0.0	1.2	16.3	41.9	40.7
I enjoy interacting with people who have disabilities.	0.0	1.2	4.7	31.4	62.8
People with disabilities are as capable as I am in many ways.	0.0	4.7	10.5	30.2	54.7

Note. Mentors' percentages of responses to statements about inclusion. $N = 86$.

Table C3*Mentor Perceptions of P2P*

Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I believe Peer to Peer is an asset to my school.	0.0	1.2	9.4	27.1	62.4
I believe Peer to Peer could be doing more for my school.	4.7	22.1	37.2	22.1	14.0
I believe Peer to Peer is an inconvenience to my school.	75.3	16.5	3.5	2.4	2.4
I have seen positive changes in my school because of Peer to Peer.	0.0	1.2	12.8	26.7	59.3
Peer to Peer has positively changed how teachers teach.	1.2	5.8	40.7	32.6	19.8
I benefited from it.	1.2	1.2	10.5	34.9	52.3
I have seen positive changes in myself due to my participation.	0.0	0.0	16.3	39.5	44.2
It has had a negative impact on me.	64.7	24.7	5.9	1.2	3.5
My involvement has not changed my life for the better.	40.5	35.7	13.1	4.8	6.0
It has given me skills that are useful beyond the class.	1.2	1.2	14.1	45.9	37.6
My involvement has not changed my life for the better.	40.5	35.7	13.1	4.8	6.0
Because of Peer to Peer, I am more accepting of people with disabilities.	1.2	1.2	14.1	28.2	55.3
Because of Peer to Peer, my perception of people with disabilities has changed for the better.	1.2	2.4	10.6	34.1	51.8
Since joining Peer to Peer, I find it easier to interact with my peers who have disabilities.	1.2	1.2	9.4	41.2	47.1

Note. Mentors' percentages of responses to statements about P2P. *N* ranges from 84 to 86.

Table C4*GE Student Perceptions of Inclusion*

Questions	Never	Occasionally	Sometimes	Often	Always
Do people try to include everyone?	1.6	12.2	23.0	37.5	25.7
Are students with disabilities isolated?	45.8	29.1	17.6	5.1	2.5
Do you see students with disabilities throughout your day at school?	0.7	6.4	9.2	28.6	55.0
Do you interact with students with disabilities daily?	13.8	23.1	27.9	22.7	12.6
It is easy to interact with my peers who have disabilities.	3.6	10.4	25.3	36.0	24.7
I enjoy interacting with people who have disabilities.	3.7	11.6	22.5	32.9	29.3
People with disabilities are as capable as I am in many ways.	2.8	11.2	20.6	31.2	34.2

Note. GE students' percentages of responses to statements about inclusion. *N* ranges from 671 to 676.

Table C5*GE Perceptions of P2P*

Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I believe Peer to Peer is an asset to my school.	4.4	1.8	23.8	42.0	28.0
I believe Peer to Peer could be doing more for my school.	6.2	15.8	56.3	14.7	6.9
I believe Peer to Peer is an inconvenience to my school.	55.6	24.9	14.9	2.9	1.8
I have seen positive changes in my school because of Peer to Peer.	3.8	2.4	30.2	38.2	25.3
Peer to Peer has changed how teachers teach for the better.	5.6	7.4	48.7	25.2	13.2
I benefited from Peer to Peer.	15.8	18.8	48.7	10.9	5.8

Note. GE students' percentages of responses to statements about P2P. *N* ranges from 448 to 450.