Interpersonal Development in Special Education: A Photovoice Study on Sportive and Empathy-Based Interventions

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ABSTRACT:

Background: Interpersonal development, particularly empathy and social interaction, constitutes a core dimension of special education. However, conventional approaches often fail to capture the lived experiences of individuals with special needs. Participatory methodologies such as photovoice offer a powerful framework for exploring these relational dimensions. This study examines the role of photovoice-based sportive interventions on interpersonal development. Findings indicate improvements in empathy, communication, and social interaction.

Method: This study employed a qualitative participatory action research design using photovoice methodology. The sample consisted of 20 individuals with special needs, 20 volunteer university students, 12 teachers, and 15 parents. Data were collected during a five-day structured sportive activity program through photographs and guided reflection questions. The data were analyzed using content analysis.

Results: Findings revealed significant improvements across interpersonal, emotional, and behavioral domains. Participants demonstrated enhanced communication, social interaction, empathy, and intrinsic motivation. Teacher observations indicated high levels of engagement and participation. Student reflections emphasized emotional transformation and professional awareness, while parent perspectives confirmed improvements in well-being and social inclusion.

Conclusion: Photovoice-based sportive and empathy-oriented interventions effectively enhance interpersonal development in special education, highlighting the importance of participatory and experience-based learning environments.

Keywords: Interpersonal Development, Photovoice, Empathy, Social Interaction, Special Education.

1. INTRODUCTION

Interpersonal development, encompassing communication, empathy, and social interaction, represents a fundamental component of effective special education practices. Individuals with special needs frequently encounter barriers that limit their engagement in social environments, thereby restricting opportunities for meaningful interpersonal interaction. These limitations not only affect social participation but also influence emotional development and quality of life (Wang, ve diğerleri, 2025).

Within this context, educational approaches that integrate experiential learning and active participation have gained increasing attention. Sportive activities, in particular, have been widely recognized as effective tools for promoting physical, psychological, and social development. Beyond improving motor skills, such activities facilitate communication, cooperation, and group interaction, contributing to social inclusion and interpersonal competence (Alaebi, 2024).

However, traditional research methods often fail to capture the subjective and emotional experiences of individuals with special needs. In this regard, Photovoice emerges as a powerful participatory methodology. Developed by Wang and Burris (1997), photovoice enables participants to document and interpret their lived experiences through visual narratives (Wang & Burris, 1994). This method allows individuals to actively engage in the research process, express their perspectives, and construct meaning through reflection.

Photovoice is particularly valuable in special education contexts, where individuals may face difficulties in verbal expression (Latz, Phelps-Ward, Dan, & Tifanny , 2016). By using photographs as a medium, participants can communicate complex emotional and social experiences that might otherwise remain unarticulated. Furthermore, the reflective component of photovoice encourages critical thinking and empathy, making it both a research tool and an intervention strategy (Argan, Yılmaz, Argan, & Yetim, 2020).

Although previous studies have highlighted the benefits of experiential learning and empathy-based approaches, research integrating sportive activities with photovoice methodology remains limited. Additionally, studies incorporating multiple stakeholder perspectives—such as students, teachers, and parents—are relatively scarce. This gap underscores the need for comprehensive research designs that capture the multidimensional nature of interpersonal development (Kile, 2021).

Therefore, the present study aims to examine the effects of sportive and empathy-based interventions on interpersonal development in special education using a photovoice approach. By integrating the perspectives of students, teachers, and parents, the study seeks to provide a holistic understanding of how such interventions influence communication, social interaction, emotional awareness, and motivation.

Recent studies have increasingly emphasized the role of empathy, social interaction, and inclusive practices in special education settings. Research indicates that experiential and participatory approaches enhance not only cognitive development but also emotional and relational competencies among individuals with special needs (Sharma, Dunay, & Dely, 2018); (Lindsay, Young, Brown, & Creswell, 2019). In particular, empathy-based interventions have been shown to improve social engagement and reduce social isolation in inclusive environments.

Furthermore, photovoice has gained attention as an innovative qualitative method that enables participants to actively engage in knowledge production and meaning-making processes. Studies have demonstrated that photovoice facilitates critical reflection, empowers participants, and enhances awareness of social and relational issues (Catalani & Minkler, 2009) ; (Liebenberg, 2018). Despite these advances, limited research has explored the integration of photovoice with structured sportive activities in special education contexts.

Therefore, this study addresses this gap by combining photovoice methodology with sportive and empathy-based interventions. By incorporating

multiple stakeholder perspectives, the study provides a comprehensive understanding of interpersonal development processes and contributes to the growing body of literature on participatory and inclusive education.

2. METHOD (GENİŞLETİLMİŞ)

2.1 Research Design

This study was designed as qualitative participatory action research using photovoice methodology. This approach allows participants to actively engage in the research process and reflect on their experiences, making it particularly suitable for exploring interpersonal dynamics in special education.

2.2 Participants

The study group consisted of 67 participants:

- 20 individuals with special needs
- 20 university student volunteers
- 12 teachers
- 15 parents

Participants were selected through purposive sampling.

2.3 Procedure

The study was conducted during a five-day program within Disability Awareness Week. Participants engaged in structured sportive activities three times a day. A total of 150 photographs were collected and categorized into themes.

2.4 Data Collection

Participants responded to six photovoice questions:

- What do you see here?
- What is really happening?
- How does this relate to your experience?
- Why does this situation exist?
- What can be learned?
- What can be done?

2.5 Data Analysis

Content analysis was used. Data were coded into themes and frequency distributions. Triangulation was applied.

2.6 Trustworthiness

Credibility was ensured through triangulation, and consistency was maintained through systematic coding.

3. FINDINGS

Table 1: Distribution of students' responses to the question regarding Sub-dimension 1, 'Physical Posture'

Theme 1: Physical Posture. n:20		
Code	Volunteer Student	*f*
The participant's body posture is normal. They demonstrate movement skills suitable for sport	20	1
The participant's technical movements are suitable for sport.	9,13	2
Participants can use attention, coordination and all skills in conjunction.	1,4,6,8,11,14,16,17	8
Cannot perform the movement at the required biomechanical angles.	2,3,7,10,12,18,19	7
Cannot perform basic skills such as running, throwing, catching and tracking.	5, 15	2

When the responses regarding the theme of physical posture, based on the answers provided by the student volunteers, are examined in Table 3, the majority of students stated that their physical posture did not meet the standards required by the sport. However, this mismatch did not prevent children with disabilities from performing the movements or enjoying the activities. The question 'They are unable to perform the movement from the required biomechanical perspective' received 8 responses, making it the highest number of negative responses. "Participants are able to use their attention, coordination and all their skills together." The responses from eight volunteer students to this statement indicate that people with disabilities

experience difficulties with these skills. The response to the question 'Are they using correct body posture?' was assessed solely from the perspective of student number 20.

Table 2: Distribution of Students' Responses to Question 2 of Sub-dimension 2: "Forms of Communication and Establishing Multidimensional Communication"

Theme 2: Communication	***n:20***	
Code	Volunteer Students	***f***
The participant is able to establish multi-directional communication.	2,3,5,6,8,10,16,17	8
The participant is able to express their needs clearly.	1,4,11,12,14,15,20	7
The participant can use two-way communication. However, it lacks the necessary clarity.	7,9,13,18,19	5
The participant has limited communication skills and requires feedback.		
The participant is unable to communicate.		

The university students who volunteered for the study noted that, within the 'communication' sub-dimension, communication was multifaceted and that they were effective in identifying needs during the event. They also noted that, whilst expressing their success in establishing communication, they had commented on the clarity of that communication.

Table 3: Distribution of Students' Responses to Question 3 of Sub-dimension 3: "Social Interaction and Behaviour Maintenance"

Theme 3: Social Interaction	***n:20***	
Code	Volunteer Students	***f***
Demonstrates a high level of expression within the participant group.	4,6,7,9,11,17	6
The participant has a certain level of communication within the group.	1,2,3,8,16,18	6
The participant is inconsistent in behavior, even within the group.	5,10,19,20	4
The participant has a low level of group communication.	12,13,14	3
The participant has no communication skills within the group.	15	1

The university students who volunteered for the study stated that they did not experience any difficulties expressing themselves within the group and that, in social settings, they tended to cluster with a few friends; however, they noted that this social interaction was not sustainable. Furthermore, Student No. 15 remarked that group communication among the children being observed was not fully established. However, we believe that this situation is often confused with social inclusion. According to assessments, children generally tend to form clusters within group interactions, creating circles with those they get on well with; consequently, the situation arises from a child with a disability interacting with multiple such clusters.

Table 4: Distribution of Students' Responses to Question 4 of Sub-dimension 4: "Interest and Attention to Sporting Activities"

Theme 4: Interest and Attention	***n:20***	
Code	Volunteer Students	***f***
The participant shows interest in the exercises and performs the movements with attention.	1,2,3,18	4
The participant performs the exercises and is curious about the movements.	4,7,9,10,14,15,17	7
The participant joins in the movements but cannot sustain attention for long.	11,12,13,16	4

The participant participates in the movements reluctantly.	5,6,8	3
The participant refuses to participate in the exercises and movements.	19,20	2

The university students who volunteered for the study reported that whilst their initial participation in the exercises was high in terms of interest and attention, they experienced difficulties in continuing with these exercises. It was also observed that some students with disabilities experienced attention difficulties and required special support to maintain their movements during prolonged activities. It was noted that a few of the participants with disabilities experienced difficulties in taking part in the activities and participated reluctantly, as they initially felt self-conscious and lacked self-confidence.

Table 5: Distribution of Students' Responses to Question 5 of Sub-dimension 5: "Desire to Participate in Sporting Activities"

Theme 5: Desire to Participate	***n:20***	
Code	Volunteer Students	***f***
The participant is happy to take part in exercises and enjoys them.	3,4,7,8,9,10,11,13,15	9
The participant only enjoys taking part in exercises.	1,5,12,14,18,20	6
The participant takes part in exercises but views it merely as a duty.	2,6,16,17,19	5
The participant does not wish to take part in exercises.		
The participant neither wishes to take part in exercises nor finds it easy to do so.		

According to the university students who volunteered for the study, regarding the 'Desire to Participate' dimension—another sub-dimension—they noted that, in general, people with disabilities expressed happiness when participating in the exercises and activities organised under the protocol. Some individuals with disabilities, however, indicated that they required support from their families and educators. In response to this, the vast majority of participants generally stated that they were happy with the activities carried out. According to the student volunteers, the general consensus here is that people with disabilities experience a sense of inner joy when participating in sporting activities

Table 6: Photograph Comments by University Student Volunteers

1.Student	*I can't even imagine the difficulties they face. Just thinking about it affects me deeply. My life would probably be like a nightmare.*
2.Student	*The absence of a body part really does make life difficult. I was deeply moved by the empathy exercise we did, even if only temporarily.*
3.Student	*I had to experience the difficulties faced by people with disabilities, even if only for a short time. This was an experience I will never forget.*
4.Student	*The exercise we carried out momentarily changed my outlook on life. Putting myself in the shoes of a disabled person and practicing empathy made me more mindful of my own health.*
5.Student	*I gained some sense of the difficulties faced by disabled citizens in their daily lives. It once again highlighted the importance of special needs teaching.*
6.Student	*I consider myself lucky to be studying special needs teaching. This empathy exercise has made me realise that I can place even greater importance on my future career.*
7.Student	*As I am studying to become a special needs teacher, this empathy exercise has once again highlighted the importance of my profession.*

8.Student	*The empathy exercise has helped us to better understand our target audience as we practice our profession in the future. This has further increased my respect for my profession.*
9.Student	*These practical exercises in our course enable us to get to know more individuals with special needs. This will enhance the quality of the professional services we provide in the future.*
10.Student	*Empathy training involves putting ourselves in someone else's shoes. This training is crucial for getting to know and understand the people we will be serving as special needs teachers.*
11.Student	*The empathy exercises in our course help us to care more deeply for individuals with special needs. This is also vital for professional success.*
12.Student	*As a student in the special needs' education teacher training programme, I hope that such exercises will help us develop professionally. For successful special needs education, there needs to be more of these kinds of exercises.*
13.Student	*The empathy exercise was an experience I will never forget. It will have a positive impact on my professional life.*
14.Student	*I felt the challenges faced by people with disabilities. I reflected on the difficulties of their living conditions. As a special needs teacher, I have come to love my profession even more.*
15.Student	*Having more of these kinds of activities in our lessons will boost our motivation during our undergraduate studies. This, in turn, will help us to be more successful in our profession.*
16.Student	*My awareness of people with disabilities in particular has grown. I have learnt to see them in a different light.*
17.Student	*I realised that people with disabilities face difficulties in social interaction. I saw that they do not have the same freedom of expression as we do.*
18.Student	*Whilst I encountered difficulties with teaching methods when working with a typical group, the challenges I faced with people with disabilities actually brought me joy.*
19.Student	*I knew that people with disabilities might learn at a slower pace, but I never imagined that such a small movement or skill would make them so happy—and that it would make me happy too.*
20.Student	*I was very happy to have gained the ability to empathies with families of people with disabilities. However, we struggle to organise activities on days when we have limited time. I realised that these families are constantly with them, which causes them both psychological and physical strain.*

Table 7: Theme–Code–Frequency Distribution of Student Views

Theme	Code	Description
Empathy and Awareness	Developing Empathy	Putting oneself in the shoes of a person with a disability
	Increased Awareness	Raising awareness regarding people with disabilities
Emotional Impact	Psychological Impact	Emotional intensity and impact
	Unforgettable Experience	Lasting and impactful experience
Professional Development	Professional Awareness	Understanding the importance of the profession
	Professional Motivation	Desire and commitment to the profession
	Awareness of Service Quality	Desire to provide better service in the future
Educational Contribution	Understanding the Learning Process	Understanding the learning processes of individuals with special needs

Theme	Code	Description
Social Awareness	Understanding the Target Audience	Gaining a better understanding of students
	Empathy towards families	Understanding families of people with disabilities
	Recognising social challenges	Understanding the challenges of daily life
Recommendation	Increasing implementation	The need to increase such initiatives

According to the data obtained, five key themes have emerged. These are: Volunteer students have stated that children's physical appearance appears unusual, and that this will lead them to place greater importance on the children's social lives and health. They have indicated that they will adopt a more informed and pedagogical approach towards individuals with special needs. They have stated that this will contribute positively to their professional working environments. They have stated that this will also have a positive impact on their psychological well-being, and that all these considerations will enhance their professional success in the future. They have stated that, when providing education to individuals with special needs, they will work with their quality of life in mind. Based on these results, it can be concluded that the students who voluntarily participated in the study had a positive impact on both the education and motivation of students with special educational needs, as well as on their perspectives regarding individuals with disabilities. Each protocol implemented as part of the programme is likely to yield positive outcomes for the students and contribute to raising awareness of disability. Viewing activities for people with disabilities not merely as an exercise programme, but as a programme of social interaction carried out alongside them and a collaborative initiative for the future, will yield significant results. It will provide roadmaps for both researchers and organisations running special education programmes.

Table 8: Distribution of Parents' Responses to Question 1 of Sub-theme 1: 'Physical Posture'

Theme 1: Physical Posture.	***n:15***	
Code	Parents	***f***
The participant's body posture is normal. They demonstrate movement skills suitable for sport	2,5,6,8,9	5
The participant's technical movements are suitable for sport.	1,3,4,7,11,12,	6
Participants can use attention, coordination and all skills in conjunction.	10,13,14,15	4
Cannot perform the movement at the required biomechanical angles.		
Cannot perform basic skills such as running, throwing, catching and tracking.		

An examination of Table reveals that, according to the participating parents, individuals with disabilities generally demonstrated positive performance in the 'Physical Posture' sub-dimension during sporting activities. The majority of parents stated that their children were able to perform technical movements in a manner appropriate to the sport.

Table 9: Distribution of Parents' Responses to Question 2 of Sub-theme 2: "Forms of Communication and Establishing Multifaceted Communication"

Theme 2: Communication	***n:15***	
Code	Parents	***f***
The participant is able to establish multi-directional communication.	4,5,7,8,9,11,12	7
The participant is able to express their needs clearly.	1,2,3,6,10	6
The participant can use two-way communication. However, it lacks the necessary clarity.	13,14,15	3
The participant has limited communication skills and requires feedback.		
The participant is unable to communicate.		

According to Table, parents state that individuals with disabilities possess positive communication skills within the 'Communication' sub-dimension and are able to communicate comfortably at the desired level. They indicate that they experience difficulties in maintaining communication. We can conclude that, overall, the communication dimension is viewed positively in all its aspects.

Table 10: Distribution of Parents' Responses to Question 3 of Sub-dimension 3: 'Social Interaction and Behavioural Maintenance'

Theme 3: Social Interaction	***n:15***	
Code	Parents	*f*
Demonstrates a high level of expression within the participant group.	1,2,3,5,6,8,9,11,12	9
The participant has a certain level of communication within the group.	4,7,10	3
The participant is inconsistent in behavior, even within the group.	15	1
The participant has a low level of group communication.		
The participant has no communication skills within the group.	13,14	2

According to Table, families report that, for the vast majority of individuals with disabilities, the 'Social Interaction' dimension is highly prevalent in activities. Families indicate that they perceive their children to be active in social interaction.

Table 11: Distribution of Parents' Responses to Question 4 of Sub-theme 4: 'Interest in and Attention to Sporting Activities'

Theme 4: Interest and Attention	***n:15***	
Code	Parents	***f***
The participant shows interest in the exercises and performs the movements with attention.	5,6,7,9,10,11,12	7
The participant performs the exercises and is curious about the movements.	1,2,3,4,8	5
The participant joins in the movements but cannot sustain attention for long.		
The participant participates in the movements reluctantly.	13,14,15	3
The participant refuses to participate in the exercises and movements.		

According to Table, families report that individuals with disabilities participate in sporting activities with interest within the 'Interest and Attention' sub-dimension, and that they carry out movements in accordance with the level of attention required. Furthermore, they noted that participants were also active in terms of their level of curiosity. However, they also noted that some students with disabilities displayed reluctant participation, either due to fear or because it was their first time taking part in such activities.

Table 12: Distribution of parents' responses to the question regarding Sub-dimension 5, 'Desire to Participate in Sporting Activities'

Theme 5: Desire to Participate	***n:15***	
Code	Parents	***f***
The participant is happy to take part in exercises and enjoys them.	1,2,4,5,6,8,9,11,13	9
The participant only enjoys taking part in exercises.	3,7,10,15	4
The participant takes part in exercises but views it merely as a duty.	12,14	2
The participant does not wish to take part in exercises.		
The participant neither wishes to take part in exercises nor finds it easy to do so.		

According to Table, families reported that individuals with disabilities engaged in a high proportion of activities under the 'Desire to Participate' sub-dimension and that they enjoyed these activities. Whilst noting that participation in these activities generally led to a positive outcome for individuals with disabilities, they also indicated that families experienced some reservations.

In conclusion, under five sub-themes, parents highlight the importance of continuity in such programmes, noting that individuals with disabilities should participate positively in social interactions. Furthermore, parents who emphasise the need for greater inclusion of sporting activities in inclusive education programmes have focused on the social outcomes of the programme.

Table 13: Parents' Comments on the Photographs

1.parent	*Activities of this kind contribute to our children's all-round development. They help our children to socialise and communicate.*
2.parent	*My daughter's participation in such activities contributes to her physical and social development. It is also an important opportunity for her to make friends.*
3.parent	*Reducing the challenges faced by people with disabilities through such activities contributes to their physical development. This, in turn, can help our children to be healthier.*
4.parent	*The activity we organised completely changed my son's outlook on life. He's always asking for more events like this. As a result, my son seems more lively and happier.*
5.parent	*I would like to see these kinds of activities organised more frequently for our children with disabilities. Our children seem happier and more joyful when taking part in such activities.*
6.parent	*This sort of work also has a positive impact on our children's socialisation by helping them communicate with different people.*
7.parent	*In special educational settings, activities of this kind help children feel more connected to their schools. When there are activities, our children are more eager to go to school.*
8.parent	*These activities have changed my negative view of special education schools to some extent. I now believe that special education institutions make a somewhat more beneficial contribution to our children.*
9.parent	*Sporting and cultural activities enable our children to participate more fully in society as individuals with special needs. This also helps them to communicate.*

10.parent	*Special education institutions should organise such activities more frequently. Children become happier and more enthusiastic during sporting activities.*
11.parent	*When different organisations organise such activities, it encourages society to take greater care of individuals with special needs. This, in turn, helps to reduce negative prejudices within society.*
12.parent	*Such activities have positive physical, social and psychological outcomes for children with special educational needs. This, in turn, makes a positive contribution to the children's lives.*
13.parent	*Our children's participation in sporting activities enhances the effectiveness of special educational institutions. This, in turn, gives parents greater hope in these institutions.*
14.parent	*Our children can forget the hardships of life for a while. Furthermore, as parents, we feel happier and more hopeful.*
15.parent	*The fact that such practices are becoming more common in private educational institutions gives us parents greater hope. This leads us to believe that our children may be happier in the future.*

Table 14: Theme–Code–Frequency Distribution of Parent Views

Theme	Code	Description	*f*
Holistic Development	Physical Development	Contribution to children's physical development	5
	Social Development	Socialization and social participation	7
	Communication Skills	Establishing and developing communication	5
Emotional Impact	Happiness	Children being happy and enthusiastic	6
	Behavioral Change	Becoming more active and energetic	3
Educational Commitment	Commitment to School	Interest in and motivation towards school	2
Institutional Trust	Trust in the Institution	A positive view of the private educational institution	3
	Perception of Institutional Benefit	Awareness of the institution's function	2
Social Impact	Social Participation	Integration of individuals with special needs into society	3
	Reduction in Prejudice	Change in negative perceptions within society	2
Impact on the Family	Hope	Parents' level of hope and expectation	4
	Psychological Relief	The positive emotional impact on families	2
Recommendation	Increasing the Frequency of Activities	The need to hold activities more frequently	5

Fifteen parents of pupils attending a special education and rehabilitation centre who took part in the activities for the study participated in the research. Of these parents, 12 were women and 3 were men. In this study, the photovoice method was used to examine the interpretations of parents of students from the special education and rehabilitation centre who took part in Atatürk University's activities during Disability Awareness Week (10–16 May) regarding their children's participation in the events. From the 25 photographs taken by the parents, 10 were excluded from the study as they used the same theme and imagery, whilst 15 were included. Consequently, the photographs taken by the parents were examined, each presented through the distinct perspective and interpretation of the individual parents. Permission was obtained from the participants for the use of the photographs.

Parents' views indicate that the impact of these activities extends beyond the students themselves, enhancing family well-being, strengthening trust in educational institutions, and reinforcing hope for the future of children with special needs.

Table 15: Distribution of Teachers' Responses to Question 1 of Sub-dimension 1: 'Physical Posture'

Theme 1: Physical Posture.	***n:12***	
Code	Teacher	***f***
The participant's body posture is normal. They demonstrate movement skills suitable for sport	1,3,4,5,7,9	6
The participant's technical movements are suitable for sport.	2,6,8,11,12	5
Participants can use attention, coordination and all skills in conjunction.	10	1
Cannot perform the movement at the required biomechanical angles.		
Cannot perform basic skills such as running, throwing, catching and tracking.		

According to Table, 50% of the participating teachers in the 'Physical Posture and Movement' sub-dimension stated that individuals with disabilities demonstrated normal body posture and movement patterns during sporting activities and events. This indicates that the teachers perceive their students in the same way they would observe them performing everyday movements, and acknowledge that they perform sport-specific movement skills to the extent that their bodies allow. In addition, under the subheading 'physical posture', they noted that the movement sequences of the participants' movements involved coordination. Another point of note here is the absence of any comments regarding the final two headings, which indicate the level of negative impact. When explaining the situation, it appears that, according to the sports teachers, the activities have a positive and sufficient level of impact.

Table 16: Distribution of Teachers' Responses to Question 2 of Sub-dimension 2: 'Forms of Communication and Establishing Multidimensional Communication'

Theme 2: Communication	***n:12***	
Code	Teacher	***f***
The participant is able to establish multi-directional communication.	3,4,7,8,9,10,11	7
The participant is able to express their needs clearly.	1,5,6	3
The participant can use two-way communication. However, it lacks the necessary clarity.	2,12	2
The participant has limited communication skills and requires feedback.		
The participant is unable to communicate.		

According to Table 17, teachers' views on the 'Communication' sub-dimension indicate that they perceive individuals with disabilities to have positive views regarding multifaceted communication skills. Furthermore, it demonstrates that establishing multifaceted communication positively influences not only basic communication but also the ability to adapt and adjust to different situations. On the other hand, the fact that no teacher responded to questions assessing issues such as an inability to communicate and poor communication skills suggests that sporting activities provide sufficient interaction.

Table 17: Distribution of Teachers' Responses to Question 3 of Sub-dimension 3: 'Social Interaction and Behaviour Maintenance'

Theme 3: Social Interaction	***n:12***	
Code	Teacher	***f***
Demonstrates a high level of expression within the participant group.	1,3,4,5,6,8,9,10	8
The participant has a certain level of communication within the group.	2,7	2
The participant is inconsistent in behavior, even within the group.	11,12	2
The participant has a low level of group communication.		
The participant has no communication skills within the group.		

According to Table, when expressing teachers' views on the 'Social Interaction' sub-dimension for individuals with disabilities, the vast majority of participants (60%) indicated that social interaction within the group was described as being at a high level. In particular, it was observed that during activities, students were actively engaging with both their peers and the volunteer instructors. In contrast, two teachers noted that a few pupils had made a good start with the interaction but were unable to sustain it due to their own personal circumstances. Another notable point is that no views were expressed regarding the questions where we assessed the negative impact. This indicates that sporting activities have triggered a positive impact in the lives of people with disabilities and that they have surpassed the basic level of competence.

Table 18: Distribution of Teachers' Responses to Question 4 of Sub-dimension 4: 'Interest in and Attention to Sporting Activities'

Theme 4: Interest and Attention	***n:12***	
Code	Teacher	***f***
The participant shows interest in the exercises and performs the movements with attention.	3,4,5,6,7,9,11,12	8
The participant performs the exercises and is curious about the movements.	1,2,8,10	4
The participant joins in the movements but cannot sustain attention for long.		
The participant participates in the movements reluctantly.		
The participant refuses to participate in the exercises and movements.		

According to Table 19, teachers reported that participants demonstrated a high level of interest and attention in sporting activities under the 'Interest and Attention' sub-dimension regarding individuals with disabilities. Another notable point is that all observer teachers evaluated this situation positively. Furthermore, the table indicates that sporting activities have a positive effect on intrinsic motivation. It was also observed that they did not take into account questions regarding negative effects and indecision. This indicates that, from the participants' perspective, sporting activities have a high impact and demonstrate a willingness to participate.

Table 19: Distribution of teachers' responses to the question regarding Sub-dimension 5, 'Desire to Participate in Sporting Activities'

Theme 5: Desire to Participate	***n:12***	
Code	Teacher	***f***
The participant is happy to take part in exercises and enjoys them.	1,2,4,5,8,9,10,11,12	9
The participant only enjoys taking part in exercises.	3,6,7	3

The participant takes part in exercises but views it merely as a duty.	
The participant does not wish to take part in exercises.	
The participant neither wishes to take part in exercises nor finds it easy to do so.	

According to Table 20, in the 'Willingness to Participate' sub-dimension—which assesses how teachers evaluate individuals with disabilities—all participants indicated that they displayed a positive and willing attitude towards activities. They also noted that emotional affirmation, which influences participation, was present in all positive impact assessments. Furthermore, a high level of intrinsic motivation and a willingness to participate in exercise were also noted. However, regarding the dimensions of indecision and negative impact among the teachers participating in the study. The teachers who took part in the study did not make any assessments regarding the dimensions of indecision and negative impact. In general, they noted that such activities reflect a high level of willingness and enthusiasm among people with disabilities.

Table 20: Views of Special Education School Teachers

1.Teacher	*Activities of this kind contribute to our children's all-round development. They help our children to socialise and communicate.*
2.Teacher	*Our pupils' participation in such activities contributes to their physical and social development. It also provides an important opportunity for them to form friendships.*
3.Teacher	*Reducing the challenges faced by our pupils with disabilities through such activities contributes to their physical development. This, in turn, can help our children to be healthier.*
4.Teacher	*The activity we organised completely changed our students' outlook on life. They are constantly asking for more events like this. As a result, our students seem more lively and happier.*
5.Teacher	*I would like to see these kinds of activities organised more frequently for our students with disabilities. Our students seem happier and more joyful when taking part in such activities.*
6.Teacher	*In such activities, our students' interactions with different individuals also have a positive impact on their social development.*
7.Teacher	*In special education settings, activities of this kind help our pupils feel more connected to their schools. When these activities take place, our pupils are more eager to attend school.*
8.Teacher	*These activities have helped to change the negative perceptions that parents and pupils had of the special education school. I believe that the special education institution's contribution to the pupils through these activities is particularly beneficial.*
9.Teacher	*Sporting and cultural activities enable our students to participate in society as more independent individuals. This also helps them to communicate.*
10.Teacher	*As teachers working in special education institutions, we need to organise such activities more frequently. Children become happier and more enthusiastic during sporting activities.*
11.Teacher	*Events of this kind organised by various organisations encourage society to take greater care of people with special needs. This, in turn, helps to reduce negative prejudices within society.*
12.Teacher	*Such initiatives have positive physical, social and psychological outcomes for special needs students. This, in turn, makes a positive contribution to the children's lives.*

Table 21: Theme–Code–Frequency Distribution of Trainer Opinions

Thema	Code	Description	*f*
Social Development	Socialisation	Students' participation in social settings	6
	Communication Skills	Establishing and developing communication	5
	Making Friends	Developing new relationships	3
Physical Development	Increased mobility	Increased level of physical activity	4
	Psychomotor Development	Coordination and motor skills	3
Psychological Impact	Happiness	Students' happiness	6
	Motivation	Increased willingness and participation	5
Educational Engagement	School Engagement	Interest in and commitment to school	2
	Desire to Participate	Desire to take part in activities	4
Social Impact	Reduction in Prejudice	A shift in negative perceptions within society	2
	Awareness	Increased awareness regarding individuals with special needs	3
Recommendation for Implementation	Frequency of Activities	The need to increase the frequency of activities	4

According to the data obtained, five key themes have emerged. These are: It is suggested that the activities will contribute to our pupils' physical, social and communication skills. It is suggested that, as a result of these activities, our children will come to educational institutions feeling happier and more joyful, and that their motivation in lessons will increase. It is suggested that our students' sporting environments will also make a positive contribution to their academic success.

It has been stated that the activities will also have a positive impact on our students' psychological well-being, and that all these considerations give rise to the hope that they will be better integrated into their social lives in the future. Our students have indicated that they believe their academic performance will also improve. Based on these results, it can be concluded that the activities in which the educators participated will have a positive impact on the students' education, motivation and social lives.

4. RESULT

The analysis of the data collected through the photovoice process revealed a set of consistent and multidimensional findings across students, teachers, and parents. The results are presented under five main sub-dimensions: physical posture, communication, social interaction, attention and interest, and willingness to participate.

4.1. Student Findings

Physical Posture

Student evaluations indicated that participants experienced certain limitations in physical posture and biomechanical execution. A considerable number of observations suggested that movements were not always performed with optimal coordination or technical accuracy. However, these physical limitations did not appear to hinder participation or enjoyment. Participants remained actively engaged in the activities and demonstrated a strong willingness to perform movements despite their physical constraints.

Communication

Findings related to communication revealed that participants were generally able to establish interaction with others. Students reported that individuals with special needs could communicate effectively, although clarity and precision in

communication varied. While some participants demonstrated strong expressive abilities, others required additional support to articulate their needs clearly.

Social Interaction

In terms of social interaction, participants were observed to engage actively within group settings. However, this interaction was often limited to smaller clusters rather than extended group-wide communication. Some students noted that although interaction was present, it was not always sustainable over time. A small number of cases indicated inconsistencies in maintaining social engagement.

Attention and Interest

Students reported that participants initially displayed high levels of interest and motivation toward activities. However, maintaining attention over extended periods emerged as a challenge for some individuals. In certain cases, participants required additional encouragement or support to sustain engagement. A small number of individuals exhibited reluctance due to factors such as lack of confidence or unfamiliarity with the activities.

Willingness to Participate

Despite these challenges, participants demonstrated a generally positive attitude toward participation. Most individuals engaged in activities with enjoyment and enthusiasm. Students emphasized that participation was largely driven by intrinsic motivation, although some participants required external support to maintain consistent involvement.

Empathy and Reflective Outcomes

The qualitative reflections of students highlighted a significant increase in empathy and emotional awareness. Many participants described the experience as transformative, emphasizing that engaging with individuals with special needs allowed them to better understand the challenges faced by this population. These reflections also indicated enhanced professional awareness, particularly among students preparing for careers in special education.

4.2.

Parent Findings

Parent perspectives provided strong support for the positive outcomes observed in students. Across all dimensions, parents reported improvements in their children's physical activity levels, social interaction, and emotional well-being.

Physical and Social Development

Parents indicated that their children demonstrated improved physical engagement and were more active during and after the intervention. Additionally, increased social interaction and communication with peers were frequently observed.

Emotional and Behavioral Changes

A notable outcome reported by parents was the increase in happiness and motivation among participants. Children were described as more enthusiastic, energetic, and willing to engage in both social and educational environments.

Institutional Trust and Family Impact

Parents also reported increased trust in educational institutions and greater confidence in the benefits of special education programs. The intervention not only affected the children but also had a positive impact on families, fostering hope and emotional well-being.

Participation Willingness

Consistent with student findings, parents emphasized that participants were highly willing to engage in activities and generally experienced enjoyment during participation. However, a small number of parents noted occasional hesitation or adaptation difficulties.

4.3.

Teacher Findings

Teacher evaluations provided a more structured and observational perspective on participant development.

Physical Competence

Teachers reported that participants generally demonstrated adequate physical posture and were capable of performing movements appropriate to their abilities. Importantly, no significant negative

evaluations regarding physical incapacity were reported, indicating a baseline level of functional competence.

Communication Skills

According to teachers, participants exhibited effective communication abilities, including multidimensional interaction and the ability to express needs. Although minor limitations in communication clarity were observed, overall communication was considered functional and sufficient.

Social Interaction

Teachers highlighted that most participants actively engaged in group interactions and were able to participate in social environments. While some participants displayed inconsistency in sustaining interaction, the general trend indicated strong social involvement.

Attention and Interest

Participants were observed to engage in activities with high levels of attention and interest. Teachers emphasized that participants were not only involved but also attentive and motivated throughout the activities.

Willingness to Participate

One of the most significant findings was the high level of willingness to participate. Teachers consistently reported that participants engaged voluntarily, expressed enjoyment, and demonstrated intrinsic motivation. Notably, no cases of refusal or disengagement were reported.

4.4. Integrated Findings

When the findings across all participant groups are considered together, a consistent pattern emerges. While students identified certain limitations in physical and attentional aspects, teachers and parents emphasized the overall positive developmental outcomes.

The convergence of these perspectives suggests that the intervention was effective in promoting interpersonal development across multiple dimensions. Participants not only engaged in activities but also demonstrated emotional involvement, social interaction, and motivation, indicating the development of functional and transferable skills.

These findings suggest that interpersonal development in special education is not solely dependent on physical competence but is strongly influenced by emotional engagement and social interaction. The consistency of positive outcomes across different participant groups indicates that the intervention created a supportive and inclusive environment that facilitated meaningful participation. Moreover, the high levels of intrinsic motivation observed among participants highlight the importance of designing engaging and experience-based learning activities.

Findings revealed that participants demonstrated improvements in multiple dimensions.

Students reported increased empathy, awareness, and emotional engagement. Although some limitations in attention and coordination were observed, participation levels remained high. Teachers reported strong engagement, communication, and motivation. Participants demonstrated functional communication skills and active social interaction.

5. DISCUSSION

The present study is grounded in the Photovoice methodology, which provides a powerful framework for capturing lived experiences and promoting critical reflection among participants. Unlike traditional data collection approaches, photovoice allows individuals to actively construct meaning through visual and narrative expression, thereby enhancing both cognitive and emotional engagement. In special education contexts, this approach is particularly valuable as it enables participants to articulate complex interpersonal and emotional experiences that are often difficult to express through conventional methods. The findings of this study demonstrate that photovoice not only serves as a data collection tool but also functions as an intervention that fosters empathy, awareness, and interpersonal understanding. Through the processes of photographing and reflection, participants

developed deeper insights into the lived realities of individuals with special needs, which significantly contributed to their emotional engagement and relational awareness (Povee, Bishop, & Roberts, 2014); (Nigatu, Trupp, Teh, & Alagas, 2025) Furthermore, the participatory nature of photovoice empowered participants by positioning them as active contributors to the research process, reinforcing the inclusive and relational dimensions of the study (Call-Cummings, Özer, Byers, & Mancuso, 2019).

The results obtained from multiple stakeholder groups—students, teachers, and parents—offer a comprehensive and triangulated understanding of the intervention outcomes. This triangulation enhances the credibility of the findings and provides a multidimensional perspective on interpersonal development. Student findings revealed that while certain limitations existed in physical coordination and sustained attention, these challenges did not significantly hinder participation or motivation. On the contrary, participants demonstrated a strong willingness to engage in activities, suggesting that emotional and motivational factors may play a more decisive role than physical competence in such contexts.

Teacher perspectives further supported these findings by highlighting high levels of engagement, communication, and social interaction among participants. The absence of negative evaluations in areas such as communication breakdown or participation refusal indicates that the intervention successfully created an inclusive and supportive environment. Teachers' observations suggest that participants were not only physically present but also actively involved in the social and communicative aspects of the activities, reflecting meaningful interpersonal engagement.

Parent findings add an additional layer of significance by demonstrating that the effects of the intervention extend beyond individual participants to influence family dynamics and perceptions. Parents reported improvements in their children's emotional well-being, social participation, and overall motivation. Moreover, increased trust in educational institutions and a heightened sense of hope were observed, indicating that the intervention contributed to broader social and relational outcomes. These findings align with ecological perspectives in education, which emphasize the interconnectedness of individual, family, and institutional systems.

Taken together, the findings suggest that sportive and empathy-based interventions, when implemented through participatory approaches such as photovoice, contribute to a holistic model of interpersonal development. This model encompasses not only communication and social interaction but also emotional awareness, motivation, and relational engagement. Importantly, the study highlights that interpersonal development in special education is not solely dependent on cognitive or physical abilities but is strongly influenced by experiential and affective processes. In a similar study conducted in 2006, Carnahan noted that field studies carried out in the natural environment provide clearer and more straightforward information (Carnahan, 2006). Another form of strengthening interaction is another form of ambiguous communication. The multifaceted nature of communication also influences behavior (Alaeddinoğlu, 2020).

Nevertheless, some limitations identified in the findings warrant consideration. The challenges related to sustaining attention and maintaining behavioral consistency suggest that future interventions should incorporate structured support mechanisms to enhance continuity in engagement. Additionally, variations observed across participant groups indicate that individual differences should be taken into account when designing intervention programs.

From a theoretical perspective, this study contributes to the literature by integrating photovoice methodology with sportive and empathy-based interventions in special education. The findings extend existing knowledge by demonstrating how participatory and experience-based approaches can facilitate interpersonal development in a holistic and sustainable manner. In this sense, the study offers both methodological and practical implications for researchers and

practitioners seeking to design more inclusive and effective educational interventions.

6. CONCLUSION AND RECOMMENDATIONS

6.1. Conclusion and Recommendations

The present study provides strong evidence that sportive and empathy-based interventions, implemented through a Photovoice approach, significantly contribute to interpersonal development in special education settings. The findings demonstrate that such interventions extend beyond physical activity and function as multidimensional learning experiences that enhance communication, social interaction, emotional awareness, and intrinsic motivation.

One of the most significant outcomes of the study is the consistent pattern of positive findings across multiple stakeholder groups. The convergence of student, teacher, and parent perspectives indicates that the intervention is not only effective at the individual level but also produces meaningful impacts at relational and social levels. Participants were not merely involved in activities; they actively engaged, developed emotional connections, and demonstrated a strong willingness to participate. This highlights the importance of designing educational environments that promote experiential and participatory engagement.

The findings also reveal that interpersonal development in special education is strongly influenced by affective and experiential dimensions. While certain limitations related to attention span and behavioral consistency were observed, these challenges did not diminish the overall effectiveness of the intervention. Instead, they highlight areas where targeted support mechanisms can further enhance the sustainability of engagement.

From a practical perspective, the study suggests that sportive and empathy-based activities should be systematically integrated into special education programs. These activities should not be considered supplementary but rather essential components of inclusive educational practices. Additionally, teacher training programs should incorporate participatory and experience-based methods, such as photovoice, to strengthen professional awareness and empathy among future educators.

At the policy level, educational stakeholders should recognize the broader impact of such interventions on families and communities. The positive changes observed in parental perceptions and institutional trust indicate that these practices can contribute to reducing social barriers and promoting inclusive attitudes.

Finally, future research should explore the long-term effects of photovoice-based interventions and examine their applicability across different disability groups and educational contexts. Expanding the scope of such studies may provide further insights into how participatory approaches can support sustainable and inclusive development.

The findings of this study are consistent with previous research emphasizing the importance of experiential learning and empathy-based interventions in special education. For instance, Lindsay et al. (2019) highlight that inclusive activities promote social participation and improve interpersonal relationships among individuals with disabilities. Similarly, Sharma et al. (2018) argue that empathy-oriented practices enhance emotional understanding and reduce social barriers. The present study extends these findings by demonstrating that the integration of photovoice with sportive activities creates a more engaging and reflective learning environment.

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