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MINDFULNESS FOR MIDDLE SCHOOL STUDENTS RECEIVING ADAPTED PHYSICAL EDUCATION SERVICES: QUALITY IMPROVEMENT PROGRAM

By

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A doctoral project submitted in partial fulfillment of the requirements for the

Occupational Therapy Doctorate

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Doctoral Project Approval

The Graduate College The University of Nevada, Las Vegas

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This doctoral project prepared by

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Mindfulness for Middle School Students Receiving Adapted Physical Education Services: Quality Improvement Program

is approved in partial fulfillment of the requirements for the degree of

Occupational Therapy Doctorate Department of Brain Health

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Abstract

Middle school students with disabilities are often isolated from their peers with decreased opportunities for participation, struggle with social emotional regulation, and self-efficacy. This has been evident among students with various disabilities who are from various age groups receiving special education services including adapted physical education (APE). Research has shown mindfulness amplifies learning and promotes a positive environment that supports children's overall wellbeing. This quality improvement project focused on developing an occupational therapy centered mindfulness program to enhance social participation, self-efficacy, and social-emotional regulation. Data collection occurred pre and post program from specialized program teacher assistants (SPTAs) using the School Participation Questionnaire (SPQ v1.4) to understand their perceptions of the mindfulness programs impact on middle school students receiving APE services. The program involved 15 middle school students receiving APE services during two separate general physical education (GPE) classes at one local CCSD middle school. Students that participated were boys with autism spectrum disorder (ASD) and a mixed gender functional life skills (FLS) class with varying disabilities. Outcomes from the program did not show statistically significant results from combined totals on the SPQ v1.4. However, the boys with Autism results showed increased scores pre and post program for Being and Doing factors of the SPQ v1.4.

Keywords: Adapted Physical Education, Mindfulness, Self-Efficacy, Social Skills, Self-Regulation

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Section One: Introduction

Occupational therapy and mindfulness are harmonious concepts which can aid in the promotion of creating positive domains when combined. Over 7,000 studies in primary and secondary education indicate mindfulness programs amplify learning and build greater capacity to self-regulate through meaningful interpersonal development (Bakosh et al., 2018). Occupational therapists can specialize in the facilitation and promotion of social emotional regulation, play and social participation by modifying activities, environments, or people to enhance participation. In school-based settings occupational therapists and educators can integrate their services in natural contexts including physical education versus isolated therapy rooms (Bazyk & Cahill, 2014). One example of this is through adapted physical education (APE), which can be defined as specially designed physical education for individuals with disabilities and mandated by law under the Individuals with Disabilities Education Act (IDEA).

The uniquely tailored instruction provided through APE services supports students with disabilities by adapting or modifying physical education activities, so they are appropriate in aiding the development of motor skills (National Consortium for Physical Education for Individuals with Disabilities [NCPEID], 2022). Additionally, APE teachers provide direct services including the planning, placement, coaching, evaluating services, coordination of school resources and advocacy.

It is important to understand the scope and legal mandates occurred through policy and advocacy changes within the United States (U.S.) to address the current state of APE services in educational settings. Historically, individuals with disabilities were subjected to unjustified and unlawful segregation in school institutions and communities. The Americans with Disabilities Act (ADA) and the Olmstead decision of 1990 activism protests pushed for more integrated

settings to promote more independence for individuals with disabilities, including children in school systems (Haegele et al., 2020; How 'Build Back Better' Supports People with Disabilities, 2022). Along with the historic legal decisions in the U.S., school-based occupational therapy services were implemented to support student participation in daily learning tasks. Students receiving adapted physical education services are typically led by APE specialist educators in middle schools (Clark County School District, n.d.). to meet unique needs and create an inclusive integrated environment, promoting increased participation within the general physical education (GPE) classroom.

The Parental Readiness and Empowerment Program [PREP] (2024) explained special education services, such as APE, include children with a wide array of qualifying disabilities such as hearing, visual, and orthopedic impairments as well as autism, specific learning disabilities or developmental delay. A child's eligibility determination is identified through evaluations conducted by the school district assessing cognitive, behavioral, physical, and developmental factors (PREP, 2024). Specific to this project middle school students ages 11-13 receiving APE services who participated were identified as boys with autism spectrum disorder (ASD) and children placed in functional life skills (FLS). Students in FLS may have multiple impairments impacting their ability to participate in traditional academic settings including intellectual disability (ID), learning, physical and emotional disability. Chen et al. (2019) highlighted middle school students with disabilities in general are at risk of social isolation, elevated levels of stress, and behaviors leading to disengagement in school activities. It is imperative to address mindfulness as it relates to social participation, self-efficacy, and social skills.

Mindfulness programs in occupational therapy focus on bringing an individual or group's attention to the present through reflection and connection of mind, body, and spirit (OTHC, 2020). Middle school students are at the center of growing mental health issues in the U.S. and there is a push to build capacity in schools, however the biggest challenge is a shortage of providers trained to meet the mounting needs of children and adolescents (Abrams, 2023). Espelage et al. (2016) points out students with disabilities are often isolated, have decreased self-efficacy and deemed unpopular due to prosocial skill deficits as well as peer rejection, meaning it is imperative to create programs which promote positive peer relationships.

Exploring the various ways occupational therapists can utilize their skills to target this population through program development is key. Olson (2010) created the social participation pediatric occupational therapy frame of reference which places an emphasis on the power of emotion to motivate and engage children by promoting increased social development through social emotional regulation as well as enhancing self-efficacy.

The aim of the program was to enhance existing APE services by implementing an occupational therapy centered mindfulness program for students receiving APE services at a Clark County School District (CCSD) middle school. There is a need for mindfulness programs tailored to students receiving APE services because of the barriers continue to exist in creating inclusive integrated environments within school based physical education. Additionally, the aim was to introduce self-efficacy, social, and self-regulation skills needed to succeed in physical education activities with school-based peers and determine the feasibility of incorporating occupational therapy centered mindfulness activities.

The role of occupational therapy in school settings according to the American Occupational Therapy Association [AOTA] (2020) is to deliver services for students in their

most naturally occurring environments support student access. Natural environments in school settings include the classroom, cafeteria, gymnasium, and playgrounds to provide programs are meaningful, which is in alignment with the IDEA Act mandates for creating least restrictive education (Christner, 2015). According to Kim & Kwon (2017) literature suggests mindfulness is effective for children with ASD and ID in addition to other neurodevelopmental disorders. To promote increased independence in physical education for children with disabilities skill development is necessary, which has led to the following question regarding the feasibility of incorporating mindfulness techniques.

Does occupational therapy centered mindfulness enhance self-efficacy, self-regulation and social skills for students receiving APE services at a Clark County middle school?

Section Two: Overview of Problem

Statement of the Problem

Legislation within the Individuals with Disabilities Education Act (IDEA) changed the landscape of children with disabilities in school, however, children with disabilities have continued challenges to full participation in physical activities due to physical, social, and emotional barriers (Wickman et al. 2016). Despite legal mandates and the development of APE, service barriers continue to exist. Children with disabilities have limited access for repetitive practice in physical education with non-disabled peer groups which is a necessary component in developing self-efficacy, social, and self-regulation skills within their natural integrated environments in school. According to Haegele et al. (2020) APE services have become more common internationally with integrated instruction in the school-based settings. However, there are several barriers that make it challenging for students with disabilities to have inclusive experiences.

Currently, Clark County School District (CCSD) is working hard to ensure students receiving adapted physical education (APE) services can participate in general physical education (GPE) with their peers. Nonetheless there is room for improvement by incorporating supplementary support services to take full advantage of the existing physical education curriculum. Current barriers noted in APE include limited opportunities to teach students about social skills, self-efficacy and behavioral skills related to social emotional self-regulation according to APE expert mentor Lesike (2023). In 2023 17% of CCSD schools were expected to lose federal Title I funding, which could cause a direct negative impact on funding for physical educational skills in the context of physical education classes (Longhi, 2023). Title I funding is a federal

education law created with the intention to ensure all students have equal opportunities in school to reach state standards through special programs and services including physical education and social emotional learning initiatives.

Proposed Solution

Programs such as "Every Moment Counts" (EMC) Refreshing Recess and Rethink ED address the importance of educator collaboration to promote positive mental health in schools through increased social emotional learning (SEL) opportunities.

For the purpose of this quality improvement program, SEL will be defined as the process in which children effectively acquire and apply knowledge, attitudes, and skills necessary to manage emotions, express empathy for others and maintain positive relationships (Daley et al., 2021). In the EMC project, these strategies were embedded into recess for elementary students, which is similar to physical education, and was intended to help children participate, enjoy socializing, making friends and ideally feel more connected in their school setting (Every Moment Counts [EMC], 2023). Additionally, Rethink Ed, which is currently being utilized across CCSD schools, provides videos about mindfulness and building emotional intelligence for children and adults to support families' social and emotional well-being. Providing these strategies to help recognize and manage emotions and build relationships may promote enhanced self-efficacy. Due to the prioritization of social emotional learning in the CCSD system it is apparent these skills should be addressed in the physical education classroom.

Increased self-efficacy is associated with reduced avoidance and anxiety during difficult situations and in turn creates better behavioral control. Providing students with disabilities with the skills to develop a greater belief in themselves through mindfulness can enhance social participation in the context of physical education (Hutzler et al., 2019).

The proposed solution is to develop a mindfulness program for students receiving APE services to enhance self-efficacy, social skills, and self-regulation at. Mindfulness and occupational therapy go hand in hand as person-centered approaches. For children, mindfulness can help them become present and centered with their mind and body to help deal with emotions and ability to self-regulate. (Occupational Therapy Helping Children [OTHC], 2023).

Significance of the Project to Occupational Therapy

Occupational therapy professionals can aid developing skills necessary to participate in instrumental activities of daily living (IADL) such as play and social participation with a holistic lens incorporates cognitive, psychosocial, and psychological aspects of individuals. EMC's mental health initiative program created by Susan Bazyk, an occupational therapist whose aim is to help children develop and maintain positive mental health through increased education on social interactions and reducing stress through the enhancement of social emotional well-being. Embedded in the EMC initiative is a program called "Refreshing Recess" which will help guide the quality improvement program at a local CCSD middle school through an occupational therapy lens. The "Refreshing Recess" program was created for elementary school aged children to promote more enjoyable play, friendship building, inclusion and social interactions respect individual differences (Bazyk et al., 2021). Concepts from EMC and SEL can aid in the creation of more inclusive GPE experiences for middle school students receiving APE services recess incorporates similar concepts to physical education in schools.

Section Three: Literature Review

In rehabilitation services, such as occupational therapy, there is a push for role emerging practice to increase school-based program approaches alongside teachers and families to enable children's full participation in school, including physical education. Participation in school settings include organized and unstructured activities such as play, friendships, clubs, as well as engagement in social roles (Maciver et al., 2019)

The use of activity and occupation-based programs such as physical activity, meditation, life-skills and sports for improved social participation, mental and behavioral health for children and youth is beneficial (Haegele et al. 2020). Participation in physical activities helps children develop knowledge of how their body functions and moves through space and how they react to different situations which is important for enhancing self-efficacy (Haegele et al., 2020; Pan & Mcnamara, 2020). When occupation-based programs are conducted in inclusive integrated settings amongst students with and without disabilities peer modeling can occur, ensuring students' unique deficits are being practiced and achieved making it possible to positively impact various settings within the school system (Haegele et al., 2020; Pan & Mcnamara, 2020). There are often barriers that exist in providing services such as the physical locations in which the APE services are provided, and with those who would limit access to engagement with peers in general physical education (GPE). Some of the common barriers include inaccessible facilities, lack of relevant opportunities, cost, and transport to and from classes (Shields & Synnot, 2016)

According to McNamara & Rizzo (2023) the barriers to access are not unique to Southern Nevada and there are system level issues across public school administrations contribute to the challenges of delivering APE services and ensuring students with disabilities are able to participate in GPE curriculum activities. The literature suggests APE teachers and services are

valued but not prioritized due to the lack of knowledge, resources, and funding often prevents administrations from providing sufficient support for APE services and teachers. To improve the quality of APE services, skill development of SEL in conjunction with physical activity through an occupational lens may help decrease emotional disturbances. Daley et al. (2021) targeted middle school students and discovered those with disabilities identified with social emotional disturbances make up a relatively large portion of students receiving special education services, therefore the need for increased support is high. It is critical to consider the benefits as well as the barriers that exist for students receiving APE services to create programming may enhance the existing experiences.

Benefits and Barriers of APE Services

Students receiving APE services are integrated in GPE classes, which is already a benefit of the physical education environment in schools. APE services promote inclusivity for children with disabilities and are intended to enhance motor skills, social interaction, and boost overall self-esteem through participation. School-based occupational therapists (OTs) can help facilitate the creation and implementation of new innovative programs. Traditionally, OTs in the school system have used more pullout therapy programs than integrated therapy. 40% of practitioners in a mixed methods study reported using pullout services, despite favoring integrated assistance, due to system barriers such as lack of training, high caseloads, variability, and attitudes in school environments (Watt et al., 2021). In theory, providing APE services often seems simple but despite the obvious benefits, the implementation process in practice can be fraught with obstacles and barriers.

APE services can be uniquely marginalized in the greater socio-cultural contexts of schools given special education and GPE has been undervalued historically (McNamara &

Rizzo, 2023). The marginalization of APE services leads to lack of attention from school administrators unless other issues arise in relation to the student's individualized education plan (IEP) (McNamara & Rizzo, 2023). McNamara & Rizzo (2023) conveyed APE services are put on the back burner despite advocacy from parents and educators due to pressure for increased test scores in other subjects and exclusion of APE teachers in some schools from the IEP process. A student's IEP according to the U.S. Department of Education (2000) is the foundation of providing quality education for students with disabilities by creating an opportunity for teachers, parents, personnel to work collaboratively for the purpose of improving the child's educational outcomes.

Benefits of APE services are easily identifiable throughout the literature providing opportunities to enhance the students' skill development of positive social and personal behaviors through sport (Olive et al. 2021). Additionally, Lieberman et al. (2017) explain APE services with the proper modifications for implementation and school support help maximize students' development in their least restrictive environment while offering a multisensory approach to aid in the learning process for students with disabilities.

The literature suggests there is a need for more nuanced SEL programs for students with disabilities calling for increased collaboration in curriculum development, facilitator training, and creation of learning tools to improve inclusivity (Daley et al., 2021). Assessing the feasibility of mindfulness programs incorporating SEL in the physical education classroom can potentially help the push towards increased opportunities for school-based integrated services in students' most natural environments.

Self-Efficacy, Self-Regulation and Social Skills (Being & Doing)

Social and Emotional Learning (SEL) is an umbrella term for a wide variety of strategies help meet SEL competencies outlined by the Collaborative for Academics, Social and Emotional Learning (CAESL), which place an emphasis on self-management, responsible decision making, self-awareness, social awareness, and relationship skills (Olive et al., 2021). Addressing SEL in schools has become more prevalent due to increasing concerns for youth mental health and although these concepts are not synonymous, the literature suggests SEL skill development is associated with better mental health for children with and without disabilities (Hagarty & Morgan, 2020). Hagarty & Morgan (2020) also point out universal school based and targeted programs teach SEL skill development and help improve various social emotional skills. School based programs such as EMC address the increasing mental health concerns for children in schools through targeted programming.

Children with disabilities have decreased opportunities to engage in physical activity and limited literature is available on how sports participation may influence their psychosocial health and well-being. Velde et al. (2018) looked at the associations of sports participation and selfperception, exercise self-efficacy and quality of life on children with physical disabilities and the results indicated participation in physical activity was beneficial for this specific population in enhancing self-perceptions and self-efficacy. Physical education classes within middle school systems are often one of the only daily opportunities a child may have to engage in physical activity, so it is critical to build the necessary skills needed to embody concepts related to enhanced self-efficacy.

Solomon (2012) explored children's social engagement from an occupational therapy perspective of doing, being and becoming. The interrelatedness of those concepts can be

connected to self-efficacy and self-regulation as forms of being in relation to impact they may have on a child's social participation. Solomon (2012) references as the doing portion of engaging in occupations.

Improved self-efficacy connects to enhanced social skills and greater independence (Velde et al., 2018). Social skill development during physical activity according to the AOTA (2020) reflects occupational therapy's scope of practice, specifically in the promotion of increased social participation, health management and play. Child centered mindfulness programs showed statistically significant increases in the social skills and self-efficacy of children with disabilities (Bistagani & Najafi, 2017)

Why Mindfulness Matters

Mindfulness-Based Social Emotional Learning (MBSEL) became a new approach placed an emphasis on daily practice as the foundation for learning, developing, and maintaining social emotional adeptness. Literature suggests mindfulness promotes positive mental health, supports engagement in meaningful activities and fosters positive social interactions (Bazyk, 2019). In addition, Bazyk (2019) explained mental health promotion from an occupational therapy perspective in schools requires all personnel to be mental health promoters by creating positive environments, promoting positive self-talk, fostering kindness and inclusivity, and encouraging physical activity for all children.

Literature suggests developing self-efficacy can help enable children to engage in more goal-directed activities are associated with self-determination and advocacy for oneself and promote increased independent decision making in the future (Lindsay & Varahra, 2022). Lindsay & Varahra (2022) noted children with various disabilities including physical, developmental, and intellectual often have lower levels of self-efficacy and confidence compared

to their peers without disabilities. Providing numerous opportunities for skill development through unique programming such as occupation centered mindfulness may enhance the learning environment in various school settings.

Although literature is limited to mindfulness program implementation in physical education settings it is evident opportunities to enhance children's social emotional skills through unique programming are available. Kim & Kwon (2019) highlighted mindfulness specifically focuses on awareness, attention and focused practice on mindful behaviors improved performance for children with disabilities. Mindfulness is more likely to be successful when combined with physical activity particularly when it targets psychological factors related to physical activity (Schneider et al., 2018).

Creating a program that incorporates mindfulness techniques may aid in addressing difficult or unfamiliar social interactions in the physical education aspect of school environments. Implementation of SEL mindfulness strategies for students receiving APE services will equip students with the aptitude needed to socialize, self-regulate while engaging in GPE with their peers, in addition to increasing self-efficacy (Olive et al., 2021). Olive and colleagues (2021) explain the necessity for SEL in GPE for students receiving APE because despite implementation of several SEL programs in schools, they are typically implemented without consideration of students with disabilities.

Section Four: Statement of Purpose

The purpose of the project was quality improvement of GPE for students receiving APE by assessing the feasibility of incorporating an occupational therapy centered mindfulness program to enhance social skills, self-efficacy, and self-regulation.

Hypothesis

Creating an occupational therapy centered mindfulness program for middle school students receiving APE services will promote enhanced social skills, self-efficacy, and social emotional regulation.

Objectives

- Implement occupational therapy centered mindfulness program for middle school students receiving APE services.
- Discover if mindfulness enhances social skills, self-efficacy and self-regulation (being & doing) in the physical education environment.
- Improve the quality of existing APE services for middle school students.

Section Five: Theoretical Framework

The Synthesis of Child, Occupational, Performance, and Environmental-In Time (SCOPE-IT) model is intended to enhance children's occupations as well as their occupational performance by recognizing children develop and enhance occupational performance through participation in daily activities. The model uses a top-down and bottom-up approach where occupational therapy practitioners attempt to identify strengths, barriers, and motivational factors (Poulsen, 2011). These occupational therapy frameworks promote client-centered collaborative practice facilitates enabling occupations such as play and social participation. Emphasis on the power of emotion to motivate and engage children's social participation. Unsupportive environments or limitations within the individual decrease occupational performance and occupational engagement as well as inclusion are critical for life satisfaction.

Several factors impact children's occupational performance and SCOPE-IT along with the Social Participation frame of reference are holistic approaches aim to maximize and empower the child-environmental-occupation fit.



Figure 1: Occupational Performance

Section Six: Methodology

Agency Description

CCSD is the fifth largest school district in the U.S. and the Las Vegas community has approximately 315,646 students. Among those students 60.8% are economically disadvantaged. Of the 374 schools 80 are listed as middle schools (U.S. News, 2021). The APE staff in CCSD services all schools in the district, including schools in outlying areas, In CCSD there are 73 itinerant APE teachers with an average caseload of 22-26 students. In September of 2023 data revealed approximately 1,592 students receiving APE services through their individualized education plan (IEP) and around 467 of those identified attend middle school.

Program Design

A pre-post design was utilized in this quality improvement project to examine special education teacher assistants' (SPTA) perceptions of each student's social participation in the context of GPE for students receiving APE services. The SPQ v1.4 was administered pre-post as a psychometric measure. Functional observation of APE adaptations, modifications, and children's interactions with their peers was conducted pre-program. In addition, this project assessed the feasibility of incorporating mindfulness with adapted physical education modifications to enhance skill development of self-efficacy, social skills, and self-regulation. Initial observation was beneficial to gain insight on students' daily interactions in one of their most natural environments within school as they participate in structured and unstructured activities. After the completion of functional observation, pre-post SPQ v1.4 and program satisfaction surveys data was analyzed.

Target Population

This program included a total of 15 participants (n=15) ages 11-13 from two separate GPE classes. All students receiving APE services at this local CCSD middle school attend GPE (General Physical Education) under the support of Adapted Physical Education Specialist Jason Gradyan. Children that participated were boys with ASD, a mixed gender class comprised FLS students with multiple physical and intellectual disabilities. Three of the seven students from the FLS group were in wheelchairs. Due to scheduling, access to campus and limited availability of the site mentor Jason Gradyan, APE specialist CCSD administration selected one location for program implementation.

	Boys with Autism Class	Function Life Skills Class
Number (n)	8	7
Male	8	2
Female	0	5
Age 11-13	8	7
years		

The goal of targeting this population in their natural setting was to enhance the experience for students receiving APE services. Espelage et al. (2016) points out students with disabilities are often isolated and deemed unpopular due to prosocial skill deficits and peer rejection, meaning it is imperative to create programs promoting positive peer relationships. This quality improvement project aided in the exploration of APE specialists and occupational therapists working together utilizing their unique skills to target this population through program development.

Program Implementation Flow

During week one the principal investigators introduced the mindfulness program. Additionally, in week one physical activities began and the principal investigator alongside APE specialist Jason Gradyan, conducted functional observations of students receiving APE services. Data collection of the SPQ v1.4 40-question form occurred pre and post program implementation. The SPQ v1.4 was administered pre and post to special education teacher assistants provide one on one assistance to students throughout the day including during physical education class. Additionally, during weeks three and four the APE specialist and principal investigator assisted students in indoor and outdoor GPE sports including: badminton, fitness stations, basketball, flag football, kickball, and volleyball.

Initial SPQ v1.4 pre-program questionnaire was administered to SPTAs to gather information on their perceptions of environmental or personal benefits and barriers impacting the 15 students during GPE. Data from the pre-program surveys and observation was analyzed in week three.

At the beginning of week five the occupation centered mindfulness program focused on self-efficacy was reinforced each day prior to the start of PE for repetitive practice to encourage self-love and compassion. Specifically, reinforcement occurred daily with a 15-minute positive affirmation activity. Students not in wheelchairs were provided with a scooter board and positive affirmation ball to participate with peers. Students in wheelchairs were given the same positive affirmation equipment while seated in their chair to engage in mindfulness exercise. In the sixth week of the project mindfulness lessons focused on social skills including gratitude and friendship building. The APE specialist and principal investigator physically demonstrated all activities beforehand and SPTAs helped students with line formation along with general

guidelines of the activity. Participants were indoors in the gymnasium as well as outdoors on the tennis court or field dependent upon the GPE schedule. They were placed on team one or two teams with peers, provided scooter boards or in their wheelchairs while working together towards a common goal in mindfulness relays. They could point at a word or verbally express a form of gratitude for a peer. Word choices were provided on oversized soccer balls.

In week seven mindfulness focused on dynamic breathing with expandable breathing spheres to promote social emotional learning on self-regulation. Week eight combined all the previous activities to continue incorporating in GPE class along with modifications or adaptations occurred for participation in the various sports being played throughout the semester. Opportunities to address mindfulness in real time scenarios throughout the duration of class were taken advantage of as the APE specialist and principal investigator utilized their expertise to modify the tasks or environment for students as they engaged in physical activities with their peers.

Throughout weeks nine and ten review of mindfulness program concepts on self-efficacy, social skills, and self-regulation to encourage repetitive practice of the previous weeks. Time was also spent during this period assisting students in more live scenarios while engaging in sports such as: kickball, badminton, basketball, and flag football tag to practice positive affirmations, gratitude, and breath work. In the final weeks, 11 and 12 the data was analyzed. During weeks 14 through 16 information was disseminated to APE expert mentors within CCSD.

Data Collection

Over a 14-week period there were observations, and surveys utilized to understand if the program was perceived as enjoyable and beneficial for enhancing APE services. The principal investigator completed functional observation through an environmental analysis form. Data

collection of the SPQ v1.4 40-question Likert scale form occurred pre and post program implementation. The SPQ v1.4 was administered to SPTAs who each provide one assistance to the 15 students throughout the day including during physical education class. The SPQ v.1.4 was printed out, each SPTA was provided with a form, pencil and given 20 minutes to complete the document during the class period.

Instruments

Adapted Environmental Analysis Observation

Provided tools for the principal investigator to be an inconspicuous observer while tracking transitions, behaviors, social interactions, and emotional challenges during participation in activities or games. The validity of the instruments requires further research and utilization in schools across the United States.

Social Participation Questionnaire (SPQ v1.4)

This instrument helps educators assess and implement programming for children with additional support needs in school settings who may be experiencing restricted participation. A pre and post SPQ v1.4 was administered consisting of 40 questions surrounding social participation and factors influence participation such as being, doing, symptoms and environment (Maciver et al., 2022). According to Maciver et al. (2022) the SPQ v1.4 instrumentation aids in providing insight on enhancing experiences for children with disabilities often have participation restrictions. The children's time spent at school is significant making it critical to utilize valid and reliable instrumentation to analyze a range of factors impacting their engagement.

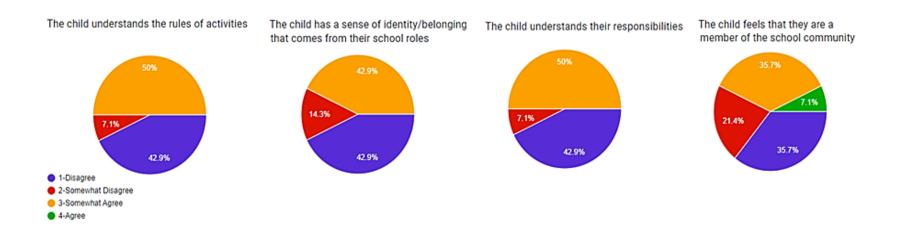
Program Satisfaction Survey

The satisfaction survey was a six question Likert scale program satisfaction survey, which included one free response for overall feedback of the occupation centered mindfulness program created by the principal investigator.

Data Analysis

The SPQ v1.4 data was analyzed after collection pre and post program implementation. Regression models examined how social participation-related constructs being, doing, symptoms and environment impacted participation in GPE for students receiving APE services. Rationale was psychometric measures of the SPQ v1.4 influence participation. Therefore, participation was the dependent variable, while SPQ v1.4 scales were independent variables, with other independent variables examined as confounders. Outcomes were observed for children (level 1 units) within schools (level 2 units) leading to non-independent data. In the pre survey of the SPQ v1.4 recommendations for the manual emphasized focusing on areas of concern rated as level (1) and level (2) which enabled the principal investigators to focus on the area of Being while progressing through mindfulness activities across the 4-week program.

Figure 2: Psychometric Measures for Program Implementation



Paired Samples t-test

Paired samples t-test of Being scores between pre and post program showed a difference in Being score in the pre (M = 2.34, SD = 0.77) and post program (M = 2.30, SD = 0.75) t (14) = 0.204, p>0.05. This was not statistically significant. Meaning, despite utilizing level (1) and level (2) units from the areas of concern in the Being category pre-program the scores were not statistically significantly enhanced post program as demonstrated in the table below.

 Table 2: Comparing the SPQ v1.4 Being Score Pre and Post Program

Pre	Post	Mean Difference	t-statistic	Sig (one tailed)
2.34	2.30	.04	.204	.842

Section Seven: Ethical & Legal Considerations

The principal investigator completed a federal background check through CCSD system and received official credentials for approval to be on campus under the supervision of a fulltime CCSD APE employee and administration. Students participating in the program were free to decline joining in the activities. Consent was obtained from the CCSD APE department and the site's administrative leadership. Data collection from all instruments utilized protected the confidentiality of student information and did not include any identifiable information regarding the identity of the students. To decrease the risk of breaching confidentiality the name and location of the CCSD middle school was protected by being removed from all documentation. Safety was considered regarding equipment that was selected for program activities to protect the students receiving APE services at all times. Professional boundaries were maintained when interacting with students in adherence with CCSD guidelines. As an educator person-first language was utilized throughout the program as a best practice to consistently maintain a positive environment that honored diversity, equity, and inclusion.

Legal mandates of the IDEA act were at the forefront of program implementation to ensure we were following legal requirements of working with this population of children in alignment with the CCSD physical education curriculum guidelines. The IDEA Act was a critical component of ethical and legal considerations because it places an emphasis on ensuring student accessibility in the least restrictive environment as well as achieving positive educational results through high quality collaborative instruction that is aligned with general curriculum (Bullock et al., 2001).

Section Eight: Results

The program consisted of a total of n=15 participants. Of the 15 participants n=8 were boys with ASD and n=7 was mixed gendered student in FLS. All students were receiving APE services. Overall, the data from SPQ v1.4 revealed similar scores in all the constructs, although two factors, Being and Doing of the SPQ v1.4 showed improvements in the group of boys with ASD pre-post program. Whereas the students in the FLS groups' scores decreased in Being and Doing segments of the SPQ v1.4. It was not statistically significant at p<0.05. See tables 3 and 4.

Table 3: Boys with ASD Being & Doing Pre-Post Program SPQ v1.4

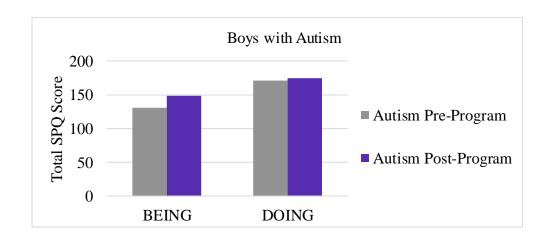
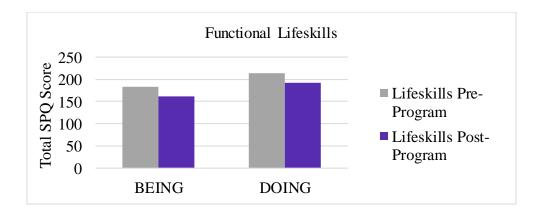


Table 4: Mixed gender FLS Being & Doing Pre-Post Program SPQ v1.4



Therefore, the paired t-test revealed the mindfulness quality improvement program did not create any significant difference in the GPE setting for students receiving APE services. Therefore, there is not enough evidence to support the claim there is a significant difference in being, doing, symptoms, and environment measures in the students before and after program. Despite SPQ v1.4 results feedback from the program satisfaction surveys Likert scale indicated the occupational therapy centered mindfulness program was well received and SPTA educators would like to see more in the future. The average score was 3.94 for Likert scale questions. For qualitative feedback from SPTAs see table 5.

Table 5: Program	Satisfaction	Survey	Feedback
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Survey Question	Quotes
What improvements would you like to see with the mindfulness program in the future?	No improvements. Daily kindness, non- judgmental, and positive attitudes were enforced daily. Very enjoyable program.
	Great program. I would possibly like to see more relatable equipment for the students in the future.
	I think they did a really great job with the kids in the program. They interacted with each and every child.
	Space was sometimes an issue because of the weather or other circumstances. There wasn't enough space in the gym on rainy days for activities. I would highly recommend this
	program in the future for our students. The program seemed to cover everything. No suggestions for improvement at this time.
	The program was an amazing edition to the PE environment. Something I would like to see in the future is more peer helpers from the general PE class.

Section Nine: Discussion

The purpose of this project was to create an occupational therapy centered mindfulness program for middle school students receiving APE services that promoted enhanced social skills, self-efficacy and self-regulation. This four-week program worked on social skills such as gratitude and friendship building, in addition to breath work coupled with positive affirmations. Occupational therapy centered mindfulness techniques were taught daily at the start of physical education classes for repetitive practice. Our program provided strategies for promoting a positive PE environment as well as opportunities for students receiving APE services to engage in uniquely tailored activities to facilitate social participation. The project concluded it is possible to implement mindfulness activities into GPE for students receiving APE services, however overall program quality improvements subjectively showed it was well received by SPTA administrators. Additional research needs to be conducted to determine if an occupational therapy mindfulness program can enhance self-efficacy, self-regulation, and social skills in the physical education setting for middle school students obtaining APE services.

Self-Efficacy, Self-Regulation, Social Skills (Being & Doing)

It is evident before the program, all measures except environment, were higher in the boys with ASD group. Interestingly, those results became statistically insignificant in the post program measures. Further examining the mean value revealed the boys Autism group received a higher score in being and doing measures after the program, and the FLS group encountered a lower score, which created insignificant results overall. Hence, the findings revealed some of the self-efficacy, self-regulation and social skills measures outlined as being in doing on the SPQ v1.4 were successful in the program to a specific group. This mirrored our preliminary data where we noticed there were more level (1) and level (2) selected, highlighting areas of concern in relation to SPQ v1.4 data analyzed for being and doing.

Although the SPQ v1.4 responses did not show statistically significant increases in being and doing, which relate to the enhancement of self-efficacy, self-regulation, and social skills the mindfulness program was well received and demonstrated slightly improved scores for the boys with ASD in a short 4-week format. programs are six weeks or more in the future to capture additional data. The results indicated that there was no increase in the being and doing for students in FLS indicating those students may need programming tailored to their unique needs in the GPE environment. Findings show quality improvement programs for middle school students receiving APE services may benefit from different strategies across groups.

Peer to Peer Partnerships

Creating unique programming for students receiving APE services in the future could include more structured peer to peer partnerships. Feedback from the program satisfaction surveys revealed that one administrator stated *something I would like to see in the future is more peer-to-peer helpers from the general PE class*. Wendelborg & Tossebro (2011) point out that with adequate training focused on peer interactions educators can facilitate increased opportunities for children with disabilities to connect with their non-disabled peers by increased concentrated efforts. Occupational therapist in school settings can aid in the promotion of more peer-to-peer social interactions if practitioners are provided the opportunity to expand their practice in school settings to develop unique programming for children receiving APE services. Occupational therapy practitioners can facilitate increased peer to peer social skill development by addressing attitudes and behaviors of peers in their social environment, which can be

challenging in school settings as practitioners are often misrepresented as "handwriting teachers" (Leigers et al., 2016)

Research shows that lack of meaningful participation in occupations can contribute to poor mental health and evidence supports occupation centered activities including mindfulness can decrease mental health risks (Cahill et al., 2020). This quality improvement project can contribute to AOTA's centennial vision emphasis on children and mental health through exploration of self-efficacy, self-regulation, and social skills with repetitive practice of mindfulness in a school setting. Cahill & Beisbier (2020) acknowledge the increasing demand for occupation-based program interventions to support children and youth's maximal participation by addressing occupational performance. Integration of occupational therapy, APE specialists and SPTAs is aligned with the clearly defined tenets of the American Journal of Occupational Therapy (AJOT) to provide effective collaborative services that are culturally responsive and customized to the individual or group needs (AJOT, 2017). Therefore, further development of occupational therapy centered mindfulness programs in school settings should be explored.

Section Ten: Limitations

The primary limitation of the quality improvement program was poor group size, which indicates the results would be more stable if the sample size were bigger and represented more CCSD middle schools. Due to limited access, resources, and time constraints to CCSD middle schools across the valley the group size was relatively small. Therefore, the generalizability of program findings was limited. Future program development may address the sample size and conduct a formal randomized controlled trial study.

Firstly, making a control group and an experiment group may address the program measures and its effect on the experiment group compared to the control group. Secondly, addressing a more homogeneous group and finding the program measures from group may reveal the success or failure of the program. An experimental study could be conducted to examine what factors affect the being, doing, symptoms, and environmental measures of the students, and how it can be increased or decreased to make the mindfulness program more effective. After implementing a formal intervention and comparing the pre and post measures it would be a logical trial to enhance the efficiency and effectiveness of the program to promote increased social skills, self-efficacy, and social-emotional regulation.

Secondary limitations of the project were student participation and time constraints. The principal investigators encouraged participation daily however factors such as absenteeism, varying levels of motivation, and disengagement may have influenced the consistency and depth of their daily participation in program activities. An additional factor that may have impacted absenteeism and engagement was the environment. The location of physical education changed depending upon weather, and space if there were other school wide events occurring in the gymnasium or outdoor fields. In instances where class was relocated due to inclement weather

conditions all GPE classes were combined into one space for an approximate total of 200 students. Time within each class was limited to approximately 15 minutes at the start of GPE, which is typically a 45-minute class period after students transition to and from previous class periods. In addition to daily time constraints the overall program length was 4 weeks as a result there was limited time to implement and assess the effectiveness of the occupational therapy centered mindfulness program, potentially impacting the comprehensiveness of the results.

Lastly, the quality improvement program had natural limitations from the instruments selected to measure the program's impact on the enhancement of the GPE environment for student's receiving APE services. The instruments relied primarily on self-report surveys from SPTAs which may be subject to bias and measurement errors as they were based on their subjective perceptions of the student's participation. Additionally, the use of functional observation pre-program to complete an environmental analysis was also a subjective assessment, meaning that all instrumentation may have limited the objectivity of the findings.

Section Eleven: Conclusion

In conclusion, there is an abundant amount of literature supporting mindfulness to enhance self-efficacy, social skills, and self-regulation, however there is a lack of data to support the mindfulness centered programming for middle school students receiving APE services. The purpose of this quality improvement program was to enhance the GPE environment with mindfulness techniques focusing on increased development of self-efficacy, self-regulation, and social skills. Integration of mindfulness program with an occupational therapy lens in GPE for students receiving APE services aligns with the centennial vision for the future of occupational therapy by addressing mindfulness. This quality improvement project utilized a pre-post design and SCOPE-It Theoretical Framework coupled with occupational therapy social participation frame of reference to enhance the physical education learning environment for students with disabilities. Future research should embrace evidence-based practice and conduct a study with large sample sizes for greater generalizability because the occupational therapy Centennial Vision points out the decisions in practice and program implementation should be based on evidence (AJOT, 2017). Overall, future quality improvement occupational therapy centered mindfulness programs for middle school students receiving APE services may benefit from being held for longer amounts of time, include peer to peer partnerships and incorporate objective measures.

Appendix A

Every Moment Counts (EMC) Refreshing Recess Environmental Analysis Original

oment			J.
Refr	eshing Recess E	nvironmental A	nalysis
r don't like about recess. Remer	that you'll be observing tion, try to be an incom ng 'hi' to students and nber that it's importan our observations of reco of the environment. No	to see how the stude spicuous observer. Ain showing an interest. In t to observe both indo ess. Your focus will be	nts on your caseload are n to 'fit in' by looking friendly, iformally ask students what they like or and outdoor recess! on the physical, social and
chool:	Grade le	evel:	Date:
Indoor recess (note location)	Outdoor recess (no	ote location)
Environmental Aspects	Concerns or challenges	Positive qualities or strengths	Describe & Make Suggestions
Transition to and from recess Students know the established routine and cooperate in going to and from recess. The process is orderly.			
Behaviors/Routines Rules are clearly stated and reinforced by supervisors & teacher. Rules are written and posted in visible location or reviewed in class.			
Describe Social Environment: Students' interactions → Students appear to be having fun, playing together, and getting along. Students include each other. Students share materials.			
Friendships. Students seem to have at least one friend. Are certain students excluded? Loners? Tune-into friendship groups.			
Students with disabilities and/or emotional challenges.			
Note their participation and enjoyment in recess. Are they included in groups? Any signs of bullying? If there are			

moment	1		M.

Environmental Aspects	Concerns or challenges	Positive qualities or strengths	Describe & Make Suggestions
Recess Supervisors Do supervisors interact in positive ways with students? Greet them by name? Smile? Are supervisors prepared to do their jobs (provide active supervision; foster active play & games; promote positive behaviors; able to resolve conflict)			
Playground toys & equipment (describe) • Variety? • Attractive? • Safe? • Adequate amount? • List types of toys/equipment • Identify any dangerous materials			Describe.
<u>Play activities & games</u> Students actively engage in enjoyable ply and games			Describe types of play.
Students are physically active Have opportunities to walk, run, skip, jump Appear to enjoy active play			Describe active play.
Students have opportunities to engage in adult-led structured activities Note approximate percentage of time Describe types of structured activities			Describe structured activities.
Students have opportunities to take part in unstructured play Note approximate percentage of time Describe types of unstructured play			Describe unstructured play.

Appendix B

Adapted Environmental Analysis Form for Physical Education

Environmental Factors	Challenges/ Opportunities for	Strengths	Suggestions/ Comments
	Improvement		
Students receiving			
APE services: Note			
their transitions and			
routines including			
line formations			
Social Interactions:			
note peer interactions			
and inclusion into			
sports/ activities.			
Friendships: Do			
certain students stay			
near the same			
peer/peers.			
Emotional			
Regulation: Observe			
challenges and how			
they are resolved.			
Motivation: Observe			
and note students'			
engagement			
GPE/APE			
Supervisors and			
Administrators:			
Note the environment			
they are fostering. Is			
it positive and			
encouraging? Are			
supervisors prepared			
to aid and include			
students in GPE			
activities?			
PE Equipment: Is it			
adaptable. Note if			
there is an adequate			
amount. List various			
items incorporated.			

Appendix C

Social Participation Questionnaire (SPQ v1.4) Manual



I INCLUEION REGENECHINEO GUERRICIZIUM LENANING

CIRCLE COLLABORATION

This tool has been produced by the CIRCLE Collaboration. A range of CIRCLE Collaboration materials are available. representing outcomes of a 10-year programme of research. The target audience varies including teachers, school leadership, therapists, and partner services. All materials are freely available at www.thirdspace.scot/circle These materials include detailed evidence based resources, developed through extensive research with teachers, parents and health professionals, to define best universal practice for inclusion and participation in schools.

CIRCLE represents a universal intervention for children with additional support needs. It is a practice model and guideline for teachers and schools. CIRCLE helps teachers to identify and provide supports auickly.

CIRCLE emphasises collaborative working; reduced reliance on specialist support; the idea that working with children of all abilities is the responsibility of everybody; that all teachers can and should provide support for all children; the key importance of the environment; and early, pro-active and ongoing identification of children's needs.

CIRCLE provides a focus on creating an inclusive environment, reducing the need for specialist support outside the classroom.

The SPO

The SPQ operates as a rapid introduction to important concepts reflected in CIRCLE. It complements, and may be used alongside existing CIRCLE materials. It is part of a suite of tools to support inclusion and participation.

The SPQ is a first level, universal tool which can be used:

- a. By teachers to understand the needs of individual children
 - please follow the instructions
- b. By school leadership to understand the range of needs and issues across groups/schools
- please read the separate information sheet for SCHOOL LEADERSHIP on www.thirdspace.scot/circle

The SPQ is a rapid measure to support understanding of the participation related constructs influencing involvement and engagement of children with health related additional support needs in the school context. Four key factors are identified that influence participation and the SPQ aims to address each of these systematically.

The SPQ is designed to ensure rapid understanding of children and environments in order to facilitate timely support which is tailored to need. Any support required should be provided as soon as possible. Children may need only small adaptations or supports to improve their participation. If more support is required then the full CIRCLE process can be adopted.

All CIRCLE materials and information are available free of charge at www.thirdspace.scot/circle

Information and calculation services

CIRCLE offers information and calculation services for the SPQ. If you wish further information on use of the SPQ, advice on how to generate statistics or other outputs associated with the tool, or further advice on utilising the tool please contact CIRCLE Lead, Professor Kirsty Forsyth kforsyth@qmu.ac.uk.

Children with additional support needs* require health, education or other supports of a type or amount beyond that required by children generally. These children may be formally identified, or could have emerging needs. Needs could require support from a health professional (e.g. an occupational therapist) or from other services/agencies (e.g. educational psychology), or might be being met by staff working within the school.

The SPQ can be used when there is a concern that a child with one or more additional support needs may be experiencing restricted participation. Participation in school is not only classroom activity, school work or achievement. School participation is everything that children do in school - all the activities which are required or desired to fulfil the 'role' of the school pupil within or around the school context. School participation can be understood in terms of how much, how often and what activities the child does (e.g. tasks or activities, school events, trips, teams, clubs, relationships with adults and friendships with peers), as well as their experience of participation whilst attending (e.g. enjoyment, satisfaction).

Research indicates four key factors are important when considering what influences children's participation:

- (1) "BEING" the thoughts and feelings the child has about themselves (e.g. understanding their own abilities, their interests, understanding their roles or feeling like a member of the school community).
- (2) "DOING" what the child actually does in school (e.g. following rules, showing interest, following a routine, or social interactions with others).
- (3) The child's "EXPERIENCE OF BODY AND MIND (SYMPTOMS)" commonly experienced by children with disabilities (e.g. pain, anxiety, mood and fatiaue/tiredness).
- (4) The school "ENVIRONMENT" the physical and social characteristics of the school context.

It is important that each of these areas is understood. School participation emerges out of a cooperation of these factors. Participation is a central force in achievement, wellbeing, and change.

Continued on page 4

*other dentitions internationally include "Special Educational Needs" (SEN) and/or "Special Educational Needs and Disabilities" (SEND) and is used to define the needs of children who have a difficulty or disability which makes learning harder for them than for other children their age as well as requiring special or additional provision to be made.



- · The SPQ is designed to assess key factors related to participation for children aged 5-12 years. The child does not have to be present when you complete the questionnaire.
- · For each statement indicate the extent to which you agree with what is said using the four-point scale provided.
- · When it is not clear which of two ratings to use, choose the lower ratings (e.g. pick a "2" and not a "3" if you are unsure).
- · Time frame: think about the previous two weeks.
- · The environment: be reflective and adopt a critical, probing, problemseeking approach towards the environment. You may find it helpful to do a "walk through" of the environment before completing the questions.
- · The child: do not think only about the child's good days, or only about their bad days, rather think about what the child is like generally. Consider the child with the supports they normally receive in place (e.g. if a child receives assistive technology then consider that child when they are using the technology).
- · Throughout: the focus is on school, therefore, when a question addresses activities the child takes part in, or roles they may fill, we are only concerned with the activities and roles that take place at school.

INSTRUCTIONS

To reflect real world practice, there are no restrictions on how information for completing the questionnaire is gained, including completion based on direct experience with the child, written notes and verbal communication with other staff. You can complete it in 'one go' or one section at a time; it is envisioned that the process will only take around 10 minutes per child. Please answer all the questions. You need to make a judgment of what rating best describes the child.





SCHOOL PARTICIPATION QUESTIONNAIRE (SPQ)

INSTRUCTIONS:

Please circle one number according to your answer. You must answer all questions.

"2" not a "3" if you are unsure).

Please use the lower number if you can't decide (e.g. pick a Class name (e.g. P1A, P1B etc.)

Child's name:

Date of birth: Date completed:

		Disogree	Somewhat Diasgree	Somewhat Agree	Agro
	The child has a realistic sense of their own skills and abilities	1	2	3	4
	The child values particular activities in school	1	2	3	4
	The child has interests (e.g. sport, computers, animals) that motivate them	1	2	3	4
DEIING	The child understands they need to follow routines in school	1	2	3	4
1	The child knows the routines they should follow		2	3	- 4
	The child understands the rules of activities	1	2	3	4
	The child has a sense of identity/belonging that comes from their school roles	1	2	3	- 4
	The child feels that they are a member of the school community	1	2	3	.4
	The child understands their responsibilities	1	2	3	- 4
	The child actively selects activities, when given a range of options	1	2	3	4
	The child persists to solve problems when they arise		2	3	4
	The child keeps going despite difficulties and setbacks	1	2	3	4
	The child follows school norms	1	Z	3	.4
	The child does what is expected of them	1	2	3	4
	The child manages daily routines	1	2	3	4
ś	The child meets the expectations of their roles	1	2	3	4
	The child meets their responsibilities	1	2	3	4
	The child successfully interacts with other people in school		2	3	4
	The child effectively controls their motor skills in school		2	3	4
	The child uses planning and organisational skills successfully in school		2	3	4
	The child has enough energy during school	1	2	3	- 4
NO NO	The child is free from anxiety in school	1	2	3	4
	The child seems to have a happy mood in school	1	2	3	4
INI	The child seems well-slept when they arrive for school	1	2	3	4
0	The child is pain free during school	1	2	3	4



INSTRUCTIONS:

Please circle **one** number according to your answer. You must answer **all questions.**

Please use the **lower number** if you can't decide (e.g. pick a "2" not a "3" if you are unsure).

	Disagree	Somewhat Diasgree	Somewhat Agree	Agree
	Strategies to foster involvement and interaction with peers are regularly applied	2	3	4
	Different adults are consistent with each other in their approach to the child 1	2	3	4
	Strategies to foster independence are regularly applied1	2	3	4
	Classmates develop and maintain friendships with the child	2	3	4
	Classmates are generally supportive of the child	2	3	4
	Classmates provide emotional support for the child (e.g. kind, thoughtful, responsive)1	2	3	4
	Classmates often include the child in social activities at school1	2	3	4
Ę	Routines involving the child are adapted as necessary1	2	3	4
Mer	Demands placed on the child are well matched to interests or abilities1	2	3	4
ENVIRONMENT	The routines that the child is involved in are planned1	2	3	4
NIN N	The child's voice is considered when devising routines1	2	3	4
ш	Spaces are appropriate for the child's sensory needs (e.g. lighting, noise)1	2	3	4
	The school building is fully accessible to the child1	2	3	4
	Visual supports are in place (e.g. timetable, classroom labels)1	2	3	4
	Spaces are available for the child's individual needs (e.g. privacy, calm, comfort)1	2	3	4
	The physical layout of the classroom is appropriate for the child1	2	3	4
	The child is made aware of the location of the resources that they require1	2	3	4
	The equipment that the child requires is available to them	2	3	4
	The child has all the objects necessary to take part in activities	2	3	4



FURTHER READING FOR CLASSROOM TEACHERS

Supporting practice using the SPQ

- Your skills and judgement in interpreting the results are key to supporting children's participation in school life.
- The results of the SPQ will help to identify the child's areas of strength and areas to develop.
- The SPQ will also help to assess the classroom environment and support you to make it more inclusive.
- It is important to schedule a date to repeat the SPQ (e.g. the following term) to assess the impact of the chosen input and make changes as required.
- The SPQ can be completed individually to support reflective practice.
- The SPQ could also be completed as part of a joint reflection with a colleague, or group of colleagues, where ideas for setting up supports can be discussed and shared.

Interpreting scores

Once you have completed the SPQ take time to look for patterns of scores. You can do this on your own or in collaboration with colleagues who know the child.

Interpreting "ENVIRONMENT"

Most people will have an understanding of the key features of how to set up an inclusive environment. It is therefore likely that an average environment which is operating effectively will receive mainly "4s" with an occasional "3" or "2" or "1" rating. However, It remains of key importance to focus on any lower scoring items to facilitate improvement (especially 2s and 1s, although a score of 3 still indicates that improvement can be made). It is essential to focus efforts on things which are under your control. Otherwise, please raise your concerns with the appropriate individual (e.g. school leadership). See the next page for suggestions for strategies. For those who wish to explore the environment in further detail, an extended inclusive classroom review process is available at www.thirdspace.scot/circle, CIRCLE primary school resource.

Interpreting "BEING", "DOING" and "SYMPTOMS"

- It is the responsibility of adults to support the child without viewing the child as the problem.
- Look for where you have given a score of 4 as these show areas of strength. It is important to highlight these. Consider if results were what you expected, and reflect on ways in which you may be able to tap in to or draw on areas of strength to support other areas of need.
- The SPQ might also highlight areas of need (e.g. scores of "1" or "2"). You may wish to focus your supports and strategies in these areas, and/or seek out guidance as required to support you to meet those needs.
- In particular, if a child is scoring mainly 1s and 2s you should urgently consider what additional supports you can put in place, implement these and monitor effectiveness. See the next page for suggestions of strategies. For further strategies go to www.thirdspace.scot/circle, CIRCLE primary school resource.

Further information

Further materials are available at www.thirdspace.scot/circle. These materials are free, and include detailed evidence based resources, developed through extensive research with teachers, parents and health professionals, to define best universal practice for inclusion and participation in schools.

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RECOMMENDATIONS FOR SUPPORTS AND STRATEGIES



8

Scoring 1s & 2s in "BEING"

- Work with children to develop a sense of belonging, socialisation, and self-confidence.
 Work with children around their perceptions of competence and
- Provide opportunities for choices
- to engage in a variety of different activities – set one achievable activity or participation focused goal.
- Further develop your understanding of the child's personality and interests.
- Match activities to interests, values and preferences.
- Provide many opportunities at the "just right challenge/level."
- Provide positive praise and reinforcement – affirmative comments and reactions to reinforce appropriate behaviour, good work and effort.
- Support the child to understand their school responsibilities.
- Support the child to feel like a member of school community and that they belong.

Scoring 1s & 2s in "DOING"

- Make sure opportunities for doing are matched to skills and abilities.
- Focus and develop the child's own ability to solve problems.
- Provide personalised support focussed attention, encouragement and feedback wherever possible.
- Provide opportunities to extend, change, alter or develop good school habits.
- Facilitate the development and maintenance of good school routines.
- Provide plenty of opportunities to extend, change, alter or develop new roles in school.
- Regularly demonstrate, instruct and develop motor skills, organisational skills and communication skills.
- Use practice and repetition.



Scoring 1s & 2s in "EXPERIENCE OF BODY AND MIND (SYMPTOMS)"

 Develop assessment structures and systems that identify and facilitate participation for children experiencing pain, anxiety, low mood or fatigue.

INCLUSION REGEARCE INTO CURRICULUM LEARNING

- Support children to recognize and effectively self-manage feelings and sensations.
- Adults can be alert to signs that the child is dysregulated and provide/offer appropriate supports, e.g. a movement break or rest time.
- Taking a break, mindfulness, controlled breathing, planning, preparation and goal setting may be helpful.
- Embed approaches to wellbeing and resilience throughout (e.g. develop understanding of social expectations, emotions and mental wellbeing).
- Try to interpret learner behaviour as an attempt by them to communicate how they feel - be alert to the potential for behaviour to represent an indirect message (e.g. they display outward behaviours when they are actually feeling fatigued or anxious).

Scoring 1s, 2s or 3s in "ENVIRONMENT"

- Build a "participation team" (teacher, child, additional teachers and/or allied health professionals, and family).
- Regularly complete analysis of environmental barriers and facilitators.
- Provide adaptations to the adult social environment: including emotional literacy, adult communication (e.g. reduce language/say less), classroom culture, supportiveness, response to bullying, and attitudes.
- Provide adaptations to the peer social environment: use peer supports - pairing one learner with another (including same first language pairing) in both academic and social situations to act as a positive role model and to offer support.
- Provide adaptations to structures/routines: structure the day/week, routines for lesson delivery, consistent rules/roles, availability of roles, and availability of opportunities for participation.
- Provide adaptations to the physical environment: physical layout, sensory qualities, accessibility.
- Provide adaptations to physical objects: resources available, visual supports, timetables, consistent symbols, assistive technology.

Further materials and information for teachers are available at www.thirdspace.scot/circle.



Appendix D

Social Participation Questionnaire (SPQ v1.4)



INSTRUCTIONS:

Please circle **one** number according to your answer. You must answer **all questions.**

Please use the **lower number** if you can't decide (e.g. pick a "2" not a "3" if you are unsure).

SCHOOL PARTICIPATION QUESTIONNAIRE (SPQ)

Child's name:

Class name (e.g. P1A, P1B etc.)

......

Date of birth: Date completed:

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The child uses planning and organisational skills successfully in school		The child successfully interacts with other people in school	2	3	4
Stress The child has enough energy during school		The child effectively controls their motor skills in school	2	3	4
The child is free from anxiety in school		The child uses planning and organisational skills successfully in school	2	3	4
		The child has enough energy during school1	2	3	4
	SMC	The child is free from anxiety in school	2	3	4
	Ĕ	The child seems to have a happy mood in school1	2	3	4
	NγS	The child seems well-slept when they arrive for school1	2	3	4
	07	The child is pain free during school1	2	3	4



INSTRUCTIONS:

Please circle one number according to your answer. You must answer all questions.

Please use the lower number if you can't decide (e.g. pick a "2" not a "3" if you are unsure).

	Disagree	Somewhat Diasgree	Somewhat Agree	Agree
	Strategies to foster involvement and interaction with peers are regularly applied	2	3	4
	Different adults are consistent with each other in their approach to the child 1	2	3	4
	Strategies to foster independence are regularly applied1	2	3	4
	Classmates develop and maintain friendships with the child	2	3	4
	Classmates are generally supportive of the child	2	3	4
	Classmates provide emotional support for the child (e.g. kind, thoughtful, responsive)1	2	3	4
	Classmates often include the child in social activities at school1	2	3	4
E.	Routines involving the child are adapted as necessary1	2	3	4
ENVIRONMENT	Demands placed on the child are well matched to interests or abilities1	2	3	4
NO	The routines that the child is involved in are planned1	2	3	4
NH N	The child's voice is considered when devising routines1	2	3	4
ш	Spaces are appropriate for the child's sensory needs (e.g. lighting, noise)1	2	3	4
	The school building is fully accessible to the child1	2	3	4
	Visual supports are in place (e.g. timetable, classroom labels)1	2	3	4
	Spaces are available for the child's individual needs (e.g. privacy, calm, comfort)1	2	3	4
	The physical layout of the classroom is appropriate for the child 1	2	3	4
	The child is made aware of the location of the resources that they require	2	3	4
	The equipment that the child requires is available to them	2	3	4
	The child has all the objects necessary to take part in activities	2	3	4

Appendix E

Overall Program Satisfaction Survey

Directions: Please select a number 1-4 for questions 1-5 and provide additional feedback on question 6.

1-Disagree, 2-Somewhat Disagree, 3-Somewhat Agree, 4- Agree

-					
1.	I enjoyed participating in the program.	1	2	3	4
2.	I believe the students enjoyed participating in	1	2	3	4
	the program.				
3.	The program enhanced the PE environment.	1	2	3	4
4.	The weekly activities included valuable	1	2	3	4
	information.				
5.	I believe this program promotes a positive PE	1	2	3	4
	environment through mindfulness.				
6.	What improvements would you like to see in				
	the program?				

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Curriculum Vitae

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EDUCATION

University of Nevada, Las Vegas, NV

Occupational Therapy Doctorate

Capstone Experience: Adapted Physical Education (APE), CCSD Advisor: Dr. Donnamarie Krause, PhD, OTR/L

University of San Diego, San Diego, CA

M.A., Leadership Studies B.A., Theater Arts

CLINICAL EXPERIENCE

University of Nevada, Las Vegas, Occupational Therapy Doctorate (2021-Present) Thrive Therapies, Las Vegas, Nevada 2023

Fieldwork Student Level II

Provided pediatric and adult occupational therapy services addressing gross and fine motor skills, sensory processing, social skills, strength, endurance, range of motion and emotional challenges to promote increased independence in activities of daily living.

Valley Specialty Hospital, Las Vegas, Nevada

Summer 2022

Fieldwork Student Level II

Inpatient rehabilitation occupational therapy services to help adult patients regain • strength, mobility, and function through specialized interventions for those recovering from stroke, neurological disorders, spinal cord injuries and orthopedic surgeries.

Level I Fieldwork & Related Experience

- Hope For Prisoners (Community Based) Level I
- Orthopedic Motion (Outpatient Pediatrics & Adults) Level I
- Nevada Senior Services (Adult Daycare Center) Level I
- The Garden Foundation (Young Adult Daycare) Level I
- Functional Integrated Therapeutic Services (FITS-Pediatric Outpatient) Observation
- Challenged Athletes Foundation (CAF-Adaptive Athletics) Volunteer

EMPLOYMENT EXPERIENCE

National University, Extended Learning, San Diego, CA (2014 - 2020) **Director of Operations & Student Services**

- Managed all current operations, including customer service and program scheduling, for the division and directly supervised four full-time, non-exempt staff.
- Led the implementation of American Heart Association (AHA) Continuing Education courses which increased SIC and revenue 60% in 2019 with continued ongoing growth.

May 2024

May 2012

May 2009

Summer

• Recruited, interviewed, and trained faculty and subject matter experts and maintained their development and teaching contracts.

University of San Diego, Women's Basketball San Diego, CA (2010 – 2014) Director of Operations/Interim Assistant Coach, 2012-2014

- Directed and coordinated the operations of the department and assisted the head coach with organizing the basketball program.
- Successfully managed travel budget over \$100k per year and maintained accurate records of financial transactions. Coordinated team travel arrangements, including transportation, hotel accommodations, meeting rooms, practice times, and catered meals.
- Directed summer camps for over 400 student-athletes; designed individual camp workouts and taught basic concepts and strategies of basketball.

Graduate Assistant, 2010-2012

- Organized multiple community service events such as the American Cancer Society Breast Cancer Walk and elementary school tutoring for 22 members of the basketball program.
- Created and organized recruiting mail-outs and completed data entry of evaluations for over 200 prospective student-athletes per week.
- Coordinated out-going film exchange with the use of Exchange and Dragonfly software.

Bridgepoint Edu., Ashford University San Diego, CA (2009 – 2010) Enrollment Advisor- Call Center

• Scheduled and advised 15 appointments per week and up to 500 lead calls per day for both prospective and enrolled students. Mentored students through successful completion of coursework.

ADVOCACY & LEADERSHIP SERVICE

UNLV Chapter Co-Chair, Coalition of Occupational Therapy Advocates for Diversity

- Facilitation of actions for all executive board members.
- Work in partnership with all executive members to ensure smooth operation and enforcement of Constitution and Bylaws.

PROFESSIONAL ASSOCIATIONS

American Occupational Therapy Association (2021-Present) National Black Occupational Therapy Caucus (2021- Present) Nevada Occupational Therapy Association (2021- Present) Women's Basketball Coaches Association (2010-2014)

CERTIFICATIONS

AHA Basic Life Support (CPR and AED) CDC Heads Up Concussion Training for Youth Sports Coaches Building Capacity of School Personnel to Promote Positive Mental Health in Children and Youth KORU Mindfulness