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Factors Impacting Enjoyment in Physical Education for Children with Disabilities

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Factors Impacting Enjoyment in Physical Education for Children with Disabilities

A Synthesis of the Research Literature

A Synthesis Project

Presented to the

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Abstract

Students with disabilities have lower levels of physical activity compared to typically developing peers, which can impact the development of motor competence needed to enjoy lifelong physical activity. Enjoyment has been linked participation in physical activity. Thus, the purpose of this synthesis was to discover factors that impact enjoyment in physical education for children with disabilities. After a thorough search of the available literature, 10 research articles met the inclusion criteria and were included in the critical mass. Factors contributing to enjoyment in physical education for children with disabilities were intrinsic and extrinsic. Extrinsic factors contributing to enjoyment included interaction with peers and teachers while intrinsic factors included perceived motor ability and activity preference. Recommendations for teachers to increase enjoyment in physical education for students with disabilities includes using affective inclusive practices, creating a positive environment, and increasing teacher readiness and attitude. Future research should be done on how to provide appropriate training to current teachers and students in physical education teacher education programs to increase levels of enjoyment in physical education for students with disabilities.

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Chapter 1-Introduction

The optimal goal of physical education is for students to gain enough knowledge to become physically literate. Physical Education programs want the students to be able to complete a variety of movement activities by the time they graduate high school. In efforts to complete this goal, physical education programs provide exposure of a variety of skill themes and movement concepts in k-12 instruction. In New York for example, Physical Education programs follow a curriculum created by the state association. The curriculum was created by distinguished physical educators around New York from all levels of education. The NYS Apherd Curriculum and Assessment Guidance Document provides teachers in New York with benchmarks and standards to guide them when teaching students to be physically literate(NYS AHPERD, 2015). The goal of physical education is for students to understand how to participate in physical activities outside of school in a safe way. The NYS Apherd Curriculum and Assessment guidance document allows practitioners in the field to plan a curriculum for students to reach the optimal goal of Physical Education. It is the practitioner's responsibility to use the content in the resource documents to meet the needs of their students. Students are going to range from a variety of ability levels in Physical Education. The range of ability levels could be due to lack of exposure to physical activity or physical or mental impairments. The goal of physical literacy, applies to all students no matter their ability levels.

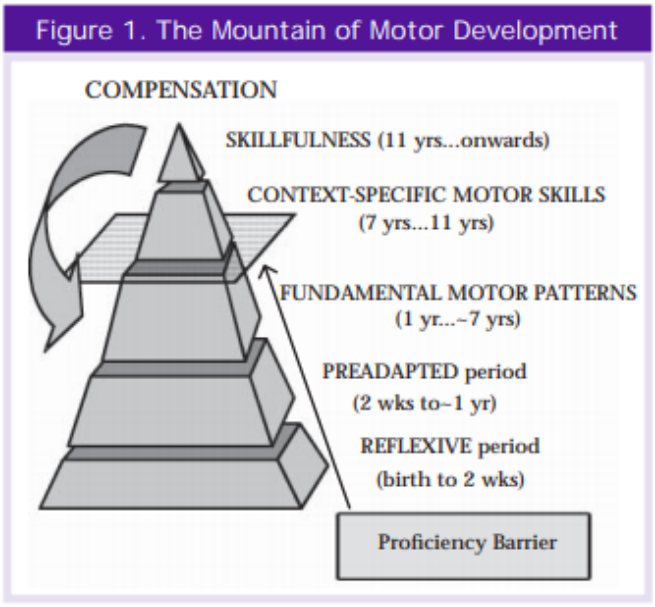
Physical education is important to all students, especially those with disabilities who have lower rates of moderate to vigorous physical activity compared to their typically developing peer (Jung et a., 2018). Health benefits of physical activity include brain health, weight management, reducing diseases such as heart disease, diabetes, strengthening muscle and bone and improving ability to do everyday activities (Center for Disease Control and Prevention, 2020). According to

Society of Health and Physical Educators (2016), many students who are provided special education programs are not receiving physical education instruction when it is time for transition services. Although physical education is mandated as a result of the Individuals with Disabilities Act (IDEA), during transition many students with disabilities are not receiving physical education services. As a result, students with disabilities become more sedentary which initiates failure to reach the optimal goal of physical education. Physical Education is important for students with disabilities for a multitude of reasons including; physical fitness, decrease risk of hypokinetic diseases, physical literacy and, increase in physical activity in environment besides school.

If students are not physically literate they are not going to be lifelong movers. The mountain of motor development (Clark & Metcalfe, 2002; see figure 1) is a continuum to explain how motor skills evolve throughout a lifetime. Motor skill development is an essential focus for physical education curriculum. Skillfulness is the top tier step on the continuum of motor development. Clark (2007) expressed that skillfulness of a motor activity is acquired at the age of 11 years old and onward. As previously mentioned, students with disabilities are lacking access to physical education during transition time. Transition time occurs around the age of 16 onward until the student graduates' high school. If the student has not reached the skillfulness tier on the continuum then, they will be less likely to continue that motor skill. Factors that contribute to continuous participation in motor activities can be intrinsic. Although many people may not be at the highest level of the skillfulness continuum, they may still choose to participate in the activity because of intrinsic factors.

Figure 1.

The Mountain of Motor Development



Note. The figure demonstrates the levels of motor development and the average age each motor skill will develop. Taken from Clark, J. E. (2007). On the Problem of Motor Skill Development. *JOPERD, 8*(5), 39-44.

Intrinsic factors such as motivation can factor in to whether students find value in physical fitness and overall health. According to Sallis et al. enjoyment has been shown to link to adolescent involvement in sport and exercise (1993).

There is a connection between enjoyment and physical education. When students are enjoying the lesson, their engagement levels increase. As a result, learning occurs. Scanlan and colleagues tokened enjoyment as the foundation for motivation in sport (1993).Scanlan and Lewthwaite's (1986) Sport Enjoyment Model uses a qualitative research method to determine enjoyment levels in physical education. The sport enjoyment model included two categories. Category 1 was intrinsic motivators and category 2 was extrinsic motivators. This model allowed researchers to determine if students were enjoying physical education by comparing their

intrinsic factors of perceived confidence and extrinsic factors such as control of results. The sport enjoyment model is a theoretical framework that used intrinsic and extrinsic factors to measure enjoyment in typically developing youngsters. This study is related to the research question of perceptions of enjoyment in physical education for children with disabilities. Research on sport enjoyment model, used a qualitative approach to explain how enjoyment relates to physical education. Students with disabilities are at a risk for hypokinetic diseases if they live more sedentary lifestyles. Enjoyment can be used as motivator for students with disabilities to choose active lifestyles. The sport enjoyment model resulted in the strongest correlation between activity generated excitement and enjoyment. Teachers in the field need to create lesson that will be enjoyable for each student. If activity created excitement and engagement, students would have deemed the activity enjoyable. Hashmi and colleagues (2008) stated that there are long term health benefits associated with physical activity enjoyment. According the center of disease control, health benefits of physical activity include, brain health, weight management, reducing diseases such as heart disease, diabetes, strengthening muscle and bones and, improving ability to do everyday activities. The sport enjoyment model resulted in increased participation in physical activity. As a result of increased physical activity time, students are less susceptible to health impairments due to lack of physical activity.

Purpose of the Study

The purpose of this synthesis is to discover the intrinsic and extrinsic factors that contribute to enjoyment in physical education for students with disabilities. Having a better understanding of the factors that impact enjoyment for students with disabilities will allow teachers to create an inclusive environment that fosters engagement.

Operational Definitions

1. Physical Education- provides students with a planned, sequential, K-12 standards-based program of curricula and instruction designed to develop motor skills, knowledge and behaviors for active living, physical fitness, sportsmanship, self-efficacy and emotional intelligence. (Shape America 2015)
2. Physical Literacy- the ability to move with competence and confidence in a wide variety of physical activities in multiple environments that benefit the healthy development of the whole person. (Shape America , 2014)
3. Disability- a person with a disability as a person who has a physical or mental impairment that substantially limits one or more major life activity. This includes people who have a record of such an impairment, even if they do not currently have a disability. It also includes individuals who do not have a disability but are regarded as having a disability. The ADA also makes it unlawful to discriminate against a person based on that person's association with a person with a disability (Americans with Disabilities Act. Definition of Disability, 2020).

Delimitations

1. Articles were published between 2000-2020
2. Articles were Peer reviewed in full text
3. Articles focused on children with wide range of disabilities
4. Articles focused on the physical education context

Assumptions

1. Participants in the study were honest
2. Researchers completed standardized test in a reliable manor
3. Standardized assessments used in the research were deemed valid and reliable

4. Researchers practiced trustworthiness and honesty when finding results

Chapter 2-Methods

Search Procedures

The data was obtained from a variety of electronic databases including, Ebsco host, Education Source and, Taylor & Francis Online Journals. The initial search was completed through The College at Brockport's online library databases. Search limiters included peer-reviewed articles and articles published between 2000 and 2020. When searching the database, keywords include *physical education, physical activity, enjoyment, non-enjoyment, adapted physical education, elementary, learning, and disabilities*. As a result of searching keywords *physical education, enjoyment, and disabilities* in the college-wide databases, 17,124 hits came up. Keywords, *physical education, physical activity, disabilities, enjoyment and elementary,* 2,427 hits were found. When the keywords, enjoyment, and physical education searched through the Ebsco Host databases, 433 articles found. The search narrowed down by adding peer-reviewed articles as a criterion. As a result, the search for physical education and enjoyment through peer-reviewed sources found 104 articles.

Research articles found in the search were comprehensive. After finding research articles that I felt matched the synthesis question, I then reviewed related articles. I used the reference list and the keywords from articles to locate more research articles for the critical mass.

Criteria for Inclusion

The selection process was the next step in the research. Articles in this research were peer-reviewed and published within the last twenty years. The publication date was critical because the field is ever-changing. The researcher wanted to ensure that information from the articles were the most relevant.

Criteria for each article selected included school-aged children with disabilities. Research articles selected contained information on students with disabilities perspectives of enjoyment in physical education. Some research articles found included participants from countries other than the USA. Articles were in the English language.

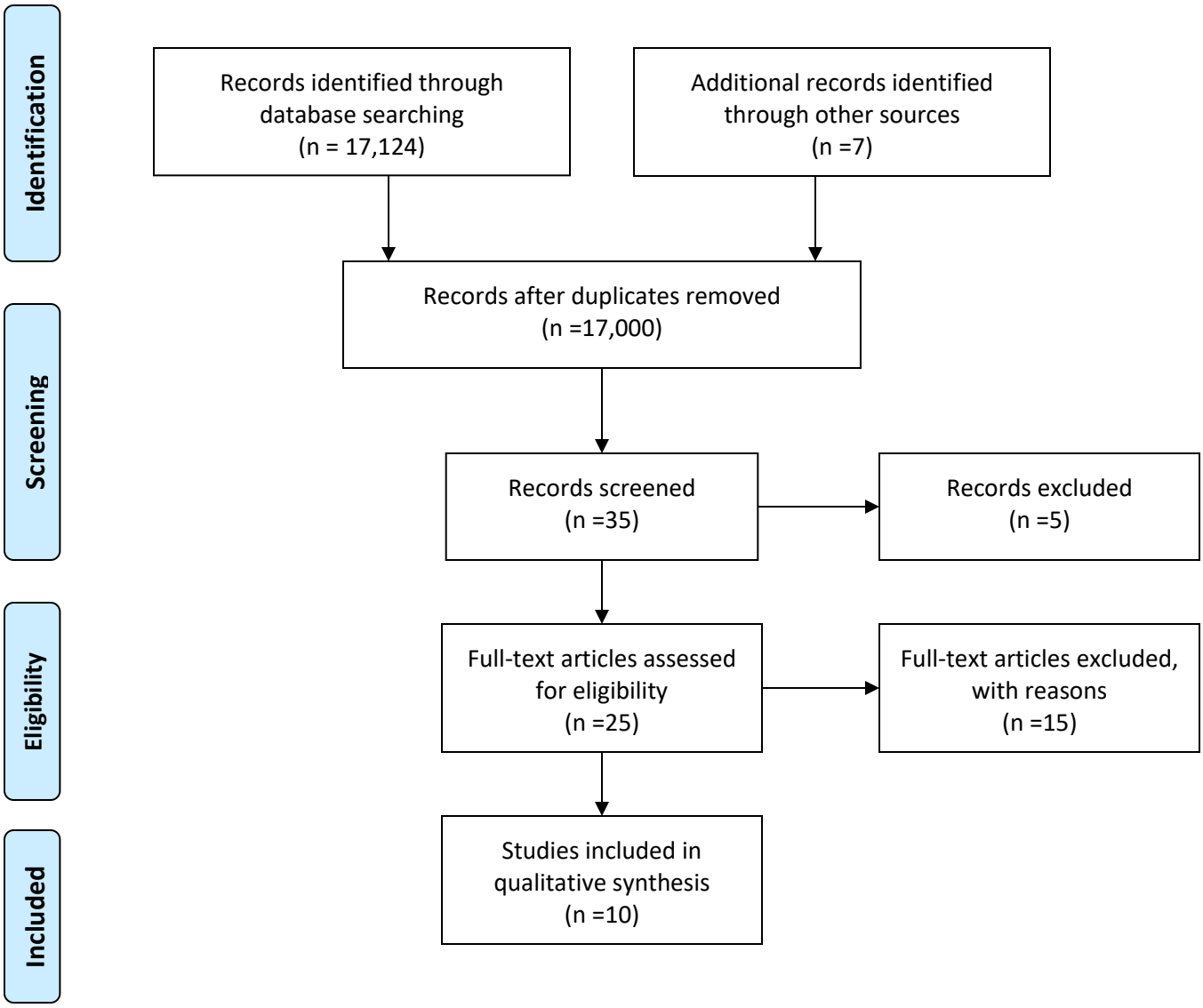
After applying the inclusion criteria, there were 10 peer-reviewed articles selected for the critical mass of this synthesis (See Figure 2).

Data Analysis

The next step after the inclusion process was data analysis. The article grid provided in Appendix A summarized how data collected for each article used in this research. The article grid summarizes the sources, purpose, methods, procedures, analysis, findings, and recommendations. The common themes were found using a thematic coding method. The common themes found were peer interaction, teacher involvement and experience, barriers to physical activity and preferred activities. The following section includes the results of the critical mass which gives a detailed depiction of how each article relates to the synthesis question.

Figure 2.

Synthesis Flow Diagram



Note: Process for obtaining the critical mass of articles.

Chapter 3-Results

The articles presented in the critical mass provide four common themes that relate to enjoyment levels in physical education for children with disabilities. The common themes were deduced from the article using a thematic coding method of qualitative research. The common themes found in the article include peer interaction, teaching strategies, teacher training, and type of activities.

Peer Interaction

Peer interaction was one of the themes found amongst the critical mass. Peer interaction is related to enjoyment and, competency levels. Healy et al. (2013) referred to the inclusion and exclusion challenges that students with disabilities faced with their peers. In the article, the participants shared their experiences with their peers in physical education as being poor. Participants in this article explained how many of their interactions with their peers involved bullying. When students were bullied they reported to not enjoy physical education. Students related the peer bullying to teacher's accountability. Due to lack of teacher sympathy and understanding of teaching a student with a disability, the teachers essentially promoted exclusion in their classes. Students also received critical comments from peers. The participants said that many of their peers yelled at them when they made a mistake. Students were also publicly identified as being low skilled. Less skilled students were picked last for teams which made them feel isolated. In another study, teachers were not holding typically developing peers accountable for their behavior toward students with disabilities, which promoted exclusion amongst the typically developing students and the students with disabilities (Carlson, 1995).

Teaching Strategies

Teachers can use student feedback to increase levels of enjoyment. A study by Lamb et al. (2014) concluded that teachers needed to find creative ways to teach students with ASD. The article suggested that teachers ask learners for feedback. The article also suggested that teachers provide a variety of equipment options. Through student feedback teachers learned that a variety of teaching styles contributed to enjoyment for children with Autism. Teaching styles included using pictures to communicate. For example, teachers asked for student feedback by the student choosing the picture that described their emotions.

The role of the physical educator is powerful in terms of building positive relationships with students. In a study by Li and colleagues (2012), the students linked their positive physical education experiences with the motivation given by the teacher. As a result, the participants perceived physical education as enjoyable. They explained that when they became unmotivated or "lazy" the physical educator in their school found ways to engage them in the lesson. In addition, students said that physical educators found opportunities for the students with cerebral palsy to be physically active. For example, teachers encourage students to engage in physical activity with their peers at recess.

Teacher Training

Teacher training also plays a role in student enjoyment in physical education. Sit and colleagues (2019) found that one of the barriers to individuals with developmental disabilities was the lack of knowledge from professionals in the field. The study by Sit and colleagues (2019) measured how the lack of knowledge from physical activity providers affected student's enjoyment levels. Students' enjoyment levels decreased during physical activity experiences with untrained professionals. When the students were involved in physical activity outside of school they were working with professionals who had little knowledge about working with

someone with developmental disabilities. Participants in the article reported that when signing up for recreational activities in their communities, there was not a trained professional to teach them. Overall students with disabilities faced many barriers when trying to access physical activity. In efforts to promote enjoyment in physical activity students with disabilities need greater access to physical activity in their community. Once they have access to more opportunities, the programs need to be taught by trained professionals.

Types of Activities

In several articles, the participants related participating in skill-based activities, decreased enjoyment. In one article, it showed that children with physical disabilities had lower preferences for physical activities (Bult et al., 2014).Participants in this study enjoyed participating in activities that were less skill-based and had more of a social aspect. When participants participated in social activities in physical education their enjoyment levels increased. Being social with peers was also a factor in the research done by McClain (2008) for his dissertation. In this research, it was determined that enjoyment levels increased when students participated in activities with music. The study mentioned that when music was playing students exchanged smiles and laughs with one another, which indicated that they were enjoying the activity. Likewise, Eversole et al.(2016) found that skill-based activities and self-improvements were the least enjoyable types of activities for students with intellectual disabilities. The participants found sports harder to learn than their peers that are typically developing. Perceived levels of enjoyment were related to preferred activities and, participants ability levels and skill acquisition. Similarly, Cairney et al. (2007) found that children with developmental coordination disorder were less likely to enjoy physical education when compared to their peers with other motor deficiencies due to their inadequacies in performing physical activities.

Less structured activities with more autonomy had more appeal for children with disabilities. For example, in Eversole et al. (2016)'s study, 85% of participants reported that they enjoyed participating in recess while only 45% reported that they enjoyed physical education. Jin and colleagues (2018) found similar results. In their study, young children with disabilities found free choice activities, such as recess and unstructured play, to be more enjoyable than a structured physical education class. Enjoyment levels increased when children had more choice in activities. The types of activities the students participated also had an influence on enjoyment. When students participated in activities that included fitness routines with music and high levels of teacher supervision, students found those activities more enjoyable (McClain, 2008).

Summary

The major findings in the critical mass conclude that students enjoy activities that are less skill based and more social. They also enjoy less structured activities that offer more autonomy. Overall teachers using a variety of teaching styles and asking for feedback increased enjoyment. Moreover, when students with disabilities had positive interactions with their peers they deemed physical education as enjoyable. Students with disabilities need trained professionals to teach them physical activities in their communities. If they are more active outside of school they will be on the path to reach the ultimate goal of physical literacy. Enjoyment in physical education is important because if students are enjoying the lesson they will be more engaged. In the next section, I will discuss how the findings can be put into practice in the field of physical education. Topics in the discussion section will include affective inclusive practices, creating positive environment, teacher readiness and attitude. In addition, the researcher will explain the limitations to the research and implications to future research.

Chapter 4-Discussion

The synthesis takes a closer look at the intrinsic and extrinsic factors that related to enjoyment levels for children with disabilities in regards in physical education. The majority of factors deduced from the research were extrinsic in nature as they focused on influences of peers and teachers. However, an intrinsic factor related to perceived ability was also evident as students found skill-based activity less enjoyable because they felt less competent in their motor skills. These intrinsic and extrinsic factors align well with the sport enjoyment model and previous research on youth without disabilities (Scanlan & Lewthwaite, 1986).

The overarching goal for physical education is for students to be physically literate by the time they graduate high school. Physical literacy includes students participating in a variety of movement activities outside of the physical education classroom. When students are enjoying the lesson, they are more engaged and learning is more likely to occur. The following section will explain the recommendations to teachers on how to improve enjoyment for students with disabilities based on the findings in the critical mass. These recommendations include affective inclusive practices, creating a positive environment, and teacher readiness and attitude.

Affective Inclusive Practices

Physical Education should be enjoyable especially, if the goal is for students to be physically literate. Inclusion has a direct relationship to enjoyment. Practitioners in the field need to be aware of inclusion techniques to provide a sound learning experience for their students. Inclusive practices in physical education are taught through all three learning domains. The learning domains consist of psychomotor, cognitive and, affective. Affective inclusive practices from teachers in the field could alter the negative perceptions that the participants were experiencing. A few researchers in Adapted Physical Education provided research-based

practices to include children with disabilities into physical education classes (Lieberman and Houston-Wilson 2018). The inclusion techniques include, training peer tutors, training paraeducators, disability awareness units, understanding the laws (Lieberman and Houston-Wilson 2018). Training peer tutor includes teaching typically developing students about a variety of disabilities and how to assist their peers with disabilities. Training paraeducators includes teaching developmentally appropriate practices for teaching in a physical education environment. Understanding the laws affords the teacher the knowledge to advocate for their students. Physical Educators can use resources such as "Strategies for Inclusion" by Lieberman and Houston Wilson 2018 to affectively include their students with disabilities into their physical education class.

Creating a Positive Environment

Mentioned in the results section, students with disabilities related their enjoyment levels to their experiences they had in physical education. Students who had negative physical education experiences tended to enjoy it less. The participants said that many of their peers yelled at them when they made a mistake. Students were also publicly identified as being low skilled. Carlson (1995) states, "if students did not understand why they were learning a sport they became disengaged. It is the educator's responsibility to create a positive environment for all of their students" (p 4-5). Teachers can promote positive learning environments through social emotional learning. Personal and social responsibility (Tannehill 2015) has been added to physical education curriculums. Personal and social responsibility teaches students through the hidden curriculum. In the hidden curriculum students gain a better understanding of soft skills which include, respect, awareness, responsibility, relationships and responsible decision making. Through the personal and social responsibility curriculum students use a character- based model

to learn citizenship, teamwork and sportsmanship. This model helps create an emotionally safe environment to promote a positive learning environment for all students. Teaching personal and social responsibility gives teachers the opportunities to teach using alternative methods. Lund and Tannehill (2015) state that personal and social responsivity includes, including all students, inviting student input, providing choice, letting students practice making choices, allowing time for reflection and, being student centered. Creating a positive environment can create opportunities for students to enjoy physical education. Educators are the stakeholders who can foster experiences of enjoyment. Teacher readiness is a contributing factor to enjoyment.

Teacher Readiness/Attitude

Educators are the stakeholders held accountable for pupil experiences in their classes. Educators' readiness to teach students with disabilities was a factor found in the results of this synthesis project. Teachers who are educated in working with students with disabilities can accommodate students in efforts to make them successful. For example, in Walsh et al. (2018) the use of online resources can be used to promote positive experiences for students with disabilities. This online tool provided teachers with knowledge to include their students with disabilities. The researchers used, an online platform to provide professional development content for teachers (2018). Uses of online tools such as the one mentioned in the previous article, can be used to promote positive experiences for students with disabilities. The educational tools can provide teachers with the knowledge to provide an inclusive curriculum for their students with disabilities.

In addition to teacher readiness and knowledge, teacher attitude is a related factor to ensuring a sound education for students with disabilities. The study by Lamb (2014) concluded that teachers needed to find creative ways to teach students with ASD. This included using an

individualized approach to teach each student with a disability even if the disability name was the same. For example, using different teaching styles for each child even if they both had ASD. One way this would be possible is to ask the students for feedback when teaching. Teacher experience relates to teacher readiness to teach students with disabilities. Teacher experience and readiness played a role in enjoyment levels of children with disabilities. Teachers would have less experience during pre-service working with children with disabilities were less prepared to teach those students.

The rigor of pre-service training directly related to the level of instruction these teachers can provide for their students with disabilities. Teachers in the study by Lamb (2014) explained how their level of knowledge correlated to how they delivered instruction. Teacher experiences during their pre-service training contributed to their teaching styles during their career. Across the United States many institutions provide little to no pre-service training in adapted physical education. Many pre-service professionals are taught to deliver physical education but not, adapted physical education services. Piletic and Davis (2019) wrote about the importance of pre-professionals gaining the opportunity to work in adapted physical education settings 2019. As a result of working in this setting, the new professionals in the field will know how to accommodate students with disabilities. Once teachers begin their career, it is important that they continue to stay current and updated with new information in the fiel.One way for teachers to continue to learn is through online platform. Wash et al. 2018. Professional development content will provide teachers the knowledge and tools to accommodate their students.

Limitations

The critical mass provided in this research paper consisted of ten peer reviewed articles. Many of the articles had participants with a wide range of disabilities. Furthermore, the articles

provided, had limited information on the participants' background information such as home lives and the learning environments outside of physical education. Another limitation of the research was that articles were not all concentrated in one geographic region. Thus, the standards and value of physical education may vary based on the context of each study. The participants' experiences were different based on the level of importance physical education had in their school district.

Implications for Future Research

Future research is needed on this topic of perceptions of enjoyment in physical education for children with disabilities. As mentioned in the limitations section, there was limited research conducted on enjoyment levels for children in one disability category. There is a need for more specific research do be done in one disability category to provide practitioners with more information on how to teach students with certain disabilities. More specific research on one disability will also give practitioners better insight on how to make sure their students are enjoying their class. Future research can include the variances of enjoyment level by gender. For example, does gender play a role in enjoyment and non-enjoyment levels for students with disabilities in physical education? The research in this synthesis was based on children with disabilities of all age levels. In the future research can be based on children's perceptions at the elementary level and secondary level. These can be looked at separately to give teachers of students at those grade levels research-based information on how create a curriculum where students enjoy physical education.

Conclusion

The purpose of this synthesis was to determine the factors that impact enjoyment levels for students with disabilities in physical education.. The articles determined that positive peer

interactions had a direct correlation with perceptions of enjoyment levels. Moreover, practitioners were held accountable for positive interaction amongst students with disabilities and their typically developing peers. Teaching strategies included uses of a variety of approaches to engage and teach students with disabilities. Teachers and physical activity Practioners were the stakeholders behind the barrier to physical activity. In the research, participants alluded to having difficulty participating in physical activity in their communities because of lack of knowledge from practitioners. Studies also found that students found enjoyment in activities that they preferred. Findings extracted from the common themes will allow professionals to create opportunities for enjoyment in physical education for students with disabilities. Recommendations included, affective inclusive practices, creating a positive environment and, teacher readiness. There is a need for practitioners in the field to change their teaching practices when teaching students with disabilities.

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Synthesis Article Grid
Appendix A

Synthesis Article Grid

Author	Title	Source	Purpose	Methods & Procedures	Analysis	Findings	Recommendations
Bult, MK., Verschuren, O., Lindeman, E., Longmans., & Ketelaar, M. (2014)	Do Children Participate in Activities They Prefer? A Comparison of Children and Youth with and without Physical Disabilities	Clinical Rehabilitation	The purpose of this student it to determine the difference in preferred leisure activities for children with and without disabilities.	The data was gathered using the Dutch Children's Assessment of Participation and Enjoyment and (CAPE) and Disability and Participation-Child-Youth study (DiPart-CY). The CAPE was a 55-item questionnaire that assess participation in leisure time	To determine participants and PAC scores an item discrepancy was created. The discrepancy score was the combined score of the diversity score of the CAPE and PAC scores. Each discrepancy sore was calculated	Children with physical disabilities participated less in all informal and formal activities. Children with physical disabilities had a lower preference score for active physical and social activities.	The article showed that children with physical disabilities had lowers preferences for physical activities. It is important for practitioners to be aware that children with physical disabilities more likely for participate in sedentary activiti

				activities. In total there were 145 children with physical disabilities and 158 children without disabilities. Preferences of Activities were determined using the Preferences for Activities for Children (PAC)	for every activity type. Individual t-test were used to determine the discrepancy betwe en childr en with and witho ut disabil ities		es becaus e of the percept ion of difficul ty level.
Cairney, J.,Hay,J.,Mandigo,.,Wade, T.,Brent,E.,Faught,A,.(20 07)	Develo pment al Coordi nation Disord er and Report ed Enjoy ment of Physic al Educat ion in	Sage Journa l	The purpos e of the study was to improv e enjoy ment levels in physic al educati on for	Study involved a cross sectiona l investig ation of students in 4^{th}-8^{th} grade. Total of 590 participa nts in the study.	The resear chers used a regres sion-based techni que to deter mine the studen t's percen tage	Childr en with DCD had lower enjoy ment scores, percei ved levels of adequa cy, and	This researc h can help educato rs in the field determi ne the needs of their student with Dcd.

	Children		children with DCD		of body fat as it related to their enjoyment levels in physical education,	higher body percentage fat.	
Eversole, M., Collins, D., Karmarkar, A., Colton, L., Quinn, J., Karsbaek, R., Johnson, J., Callier, N., & Hilton, C. (2016)	Leisure Activity Enjoyment of Children with Autism Spectrum Disorders	Journal of Autism & Developmental Disorders	To understand patterns of enjoyment in children with autism spectrum disorder compared to their typically developing peers. Through an intervention process, the research	The research was conducted through a case comparison study. The study included an interview-based questionnaire.	Data was collected using IBM's statistical data analysis tool.	Enjoyment levels were the highest for social, physical and, recreational activities. Skill based activities and self-improvements were the least enjoyable. Participants with ID	When working with children with autism spectrum disorder, professionals can provide an engaging educational platform if they know what the students enjoy. Using the research to

			determine how motivation was related to enjoyment levels in leisure activities.			found sports harder to learn than their peers that are typically developing.	help implement a curriculum that students will be motivated to participate in.
Sit, C., Yu, J., Wong, S., Capio, C.&Masters. (2019)	A School-Based Physical Activity intervention for children with developmental coordination disorder: A randomized controlled trial	Research in Developmental Disabilities	The purpose of this study was to determine the movement difficulties resulting from developmental coordination disorder and its effect of physical and psychological health of	The study included 62 participants identified with developmental coordination disorder. The intervention lasted 8 weeks. Students completed a follow up assessment which consisted of fundamental moveme	Test of Gross Motor Development-2 (TGMD-2) was used to assess functional motor skills (FMS). Physical activity levels were assessed using ActiGraph activit	Childrden with DCD had significantly poorer FMS proficiency compared to their typically developing peers. FMS training improved locomotor and object control skills after	Functional motor skills training was an effective way to promote FMS proficiency. Professional working with children with DCD should be aware of deficits in memory recollection and

			children.	nt skills. The second follow up session was 12 months after the intervention. The second follow up assessment included fundamental movement skills.	y monitor (GT3X). Self-perceived confidence was measured using the Chinese version of Physical Self Descriptive Questionnaire (PSDQ). Diversity and enjoyment were measured using the Childrenʼs Assessment of Participation and	the intervention took place.	visual spatial memory.

					Enjoyment (CAPE). Physical profile were measured used Body-mass index (BMI).		
Healy, S., Msetfi, R., Gallagher's. (2013)	Happy and A bit Nervous': the experiences of children with autism in physical education	British Journal of Learning Disabilities	The purpose of this study is to determine the perspectives of physical education from students with Autism Spectrum Disorder (ASD).	The participants were 12 students who have ASD and are currently in a mainstream physical education program. Data was collected through interviewing. Each interview was tailored to each student	Data analysis was conducted through an inductive thematic analysis. Researchers used interview transcripts to analyze data. Researchers recorded assumptions and ideas.	The three main themes that were identified were individual challenges, peer interaction and exclusion. Individual challenges included physical ability, physical	Teachers should be aware of the barrier's children with ASD face when in physical education class. Children with ASD should be taught in the least restrictive environ

				to promote comfort and reliable answers.	Initials codes were made and data was collated to relate to each individual code.	fitness, sensory issues and, fear of injury. Peer interaction included bullying and other relationship experiences with peers. Exclusion from peers. Teachers allowing students to be excluded.	ment. Checking placement of students to ensure academic success. If teachers are aware of barriers that children with ASD face in their class they can try to minimize the barriers,
Lamb, P. (2014)	Capturing the World of Physical Education Through the Eyes	Sport Education and Society	The purpose of this study was to provide teachers will strategi	The research was conducted using a case study method. The participants of	The researcher coded the interviews to determine what the	The research concludes that teachers may need to find creativ	Each child with autism is different and changing delivery can

	of Childr en with Autis m Spectr um Disord er		es to facilita te comm unicati on and social interac tions will providi ng a positiv e physic al educati on experie nces for all student s.	the study took photos of what their interpret ation of physical educatio n. This method was used to create a dialogue between the teacher and student. Data collectio n took place over a two-week period. After students took their photos they sat with the research er and describe d each photo verbally or using a commun	perspe ctives of physic al educat ion from the eyes of studen ts with autism spectr um disord er.	e ways to teach studen ts with autism spectr um disord er. Physic al Educat ion for studen ts with ASD can be challe nging. Differ entiati ng instruc tion, using a variety of teachi ng styles can help accom modat e studen ts with ASD.	create an inclusi ve environ ment for student s. It is importa nt for teacher s to plan for inclusi on and be inform ed about the barrier' s childre n with ASD face.

				ication device.			
Carlson, T(1995)	We Hate Gym Student Alienation from Physical Education	Journal of Teaching Physical Education	The purpose of this study was to determine the factors that were related to the reason's students did not enjoy physical education.	The study had four phases, interviews with students, teacher interviews, survey and student interviews.	The researchers used a a comparison chart. After reviewing the responses from students, the researcher put their responses into categories.	Extrinsic and intrinsic factors were involved in the student's perceptions of feeling alienated or not during physical education class.	The article recommends that practitioners in the field become aware of the factors that make students feel alienated.
Chunxiao Li, & Shihui Chen. (2012).	Exploring Experiences of Physical Activity in Special School Students with Cerebral Palsy: A	European Journal of Adapted Physical Activity	The purpose of this article was to determine the barrier that negatively influence participation in physic	The research used a qualitative approach through interviewing to collect data.	All interviews were recorder through audio tapes. After the end of the interviews, the resear	Four common themes were found. Sedentary behaviors, motivations and barrier were the four themes	This research can be used as a resource for physical educators' research also recommends that childre n with

	Qualitative Perspective.		al education for students at a special school.		chers coded the interv ein transcripts into themes.	that were related to physic activity experiences.	cerebral palsy get introduced to physical activity at an early age.
Jin, J., Yun, J., & Agiovlasitis, S. (2018).	Impact of enjoyment on physical activity and health among children with disabilities in schools	*Disability and Health Journal*	The purpose of the study was to determine the effects of physical activity and improving health conditions of students with disabilities.	241 students with disabilities were surveyed. Data was collected to determine student's physical activity participation and fitness levels.	The study used quantitative methods to determine the relationship between enjoyment I school based physical activity programs and overall physical activity participation.	The younger students said they enjoyed unstructured forms of physic activity. Enjoyment in school based physical activity directly influenced daily physical activity participation.	Physical Education teacher should consider the results when developing curriculum. Enjoyment had a direct relationship with overall health. Also, students who enjoyed school based physical activity participated in

							it outside of school. The information from this research could help practitioners reach their goal of students being physically literate.
McClain.D.Z.(2008)	Enjoyment in Physical Activity Levels of Students With and Without Disabilities in Physical Education.	A Dissertation Submitted to Oregon State University	The purpose of this students was to determine students when enjoyment and physical activity levels are at their highest when partici	There were 122 students in 6th grade at two middle schools. Data was collected during the students 40-minute physical education class. The researcher used a Likert	The McKenzie and Alcaraz and Sallis enjoyment questionnaire was used to determine enjoyment. Students levels of physical	It was determined that students enjoyed physical activity that including fitness lesson with music. Students also enjoyed when teache	The research can be used to provide practitioners with information on how to create curriculum that provide enjoyment for their students. This research could

			pating in activities via fitness routines that are incorporated in daily physical education lessons.	scale to determine the students answers through a questionnaire.	activity were determined using Walk4Life LS-2525 oedometers. Th pedometers were used to determine used levels of moderate to vigorous levels of physical activity.	rs provided high levels of supervision.	also be used for future research in determening how to increase student's' levels of moderate to vigorous physical activity.