

# International Journal of English Studies and Literature

international online journal in English published Half-Yearly. IJESL offers a fast publication schedule whilst maintaining rigorous peer review; the use of recommended electronic formats for article delivery expedites the process. All submitted research articles are subjected to immediate rapid screening by the editors, in consultation with the Editorial Board or others working in the field as appropriate.

It is a peer reviewed journal aiming to communicate high quality original research work, reviews, and short communications, in the field of English Studies and Literature. Articles with timely interest and newer research concepts will be given more preference.

The aim of the journal is to provide a platform for budding scientists, researcher.



[www.trpubonline.com/journals.php](http://www.trpubonline.com/journals.php)  
[trpub.online@gmail.com](mailto:trpub.online@gmail.com)  
or [ijesl.com@trpubonline.com](mailto:ijesl.com@trpubonline.com)



<https://ijesl.com/index.php/ijesl>

Vol. 9, No. 1, 2024

© Thomson & Ryberg Publications. All Rights Reserved

## A CONTEMPORARY REVIEW OF ENGLISH LANGUAGE LITERATURE ON INCLUSION OF STUDENTS WITH DISABILITIES IN PHYSICAL EDUCATION: A EUROPEAN PERSPECTIVE

*G.BHAVANNARAYANA1 , M.SATYA HARISH2 , V.R.V.S. SAI VALLI,*

**Department of Teaching, Kakatiya university Warangal**

When it comes to GPE, the level of inclusion for students with disabilities differs from country to country throughout Europe. The concept of inclusive PE is still in its early stages in many nations. In an effort to reach some kind of agreement on how to best support inclusive practices throughout Europe, this literature review aims to shed light on the ongoing discussions on how to best include students with disabilities in physical education programs. The eight years starting at the beginning of the year 2000 are covered in this overview. This review summarises twenty-seven publications that adhere to the four-factor model proposed by Dunkin and Biddle (1974) for studying classroom instruction: presage (the instructor), context (the students), process (the interaction between teachers and students), and product. The overarching goal of this literature review is to draw attention to the need of establishing professional standards for the effective implementation of good practice within GPE throughout Europe by analysing current publications in the subject of APA.

*KEYWORDS: physical education, integration, inclusion, mainstreaming, and disabilities.*

### INTRODUCTION

Various authors in the area of adaptive PE define inclusion differently. Instead of separating kids with disabilities from the regular classroom setting so they may get "special" services, Lieberman and Houston-Wilson (2002) defined inclusion as offering these services inside the regular classroom setting. Others define inclusion as a feeling of belonging, tolerance of diversity, and attention to people's unique requirements (Stainback & Stainback, 1996). According to Miller (1994), inclusion is the tip of the iceberg when it comes to helping students with disabilities. It involves putting them in mainstream classes with the right support staff so they can learn and get help just like their classmates. As a whole, "inclusion" refers to programs that help all kids succeed, regardless of their

capable of reaching their maximum potential in a suitable learning environment. The general public holds the view that inclusive physical education programs are essential for the healthy development of all children, including those with disabilities (BAALPE, 1996). While there is some study on the topic of mainstreaming children with disabilities into regular classrooms, there is a dearth of studies that specifically address physical education. Recent studies have shown that children with disabilities

can benefit from physical education programs that include them (Goodwin & Watkinson, 2000; Faison-Hodge & Porretta, 2004; Obrušníková, et al., 2003), and this can be done without negatively impacting typically developing classmates. Educators must assess each student's requirements in order to provide them with the physical education they need within

the general physical education (GPE) setting (Block & Krebs, 1992) since within physical education there is believed to be a continuum of placement options with different levels of inclusion (Block, 2007). Inclusion of students with disabilities in GPE has been the focus of growing number of studies in the last 20 years. Block and Vogler (1994) reviewed literature with regard to inclusive school settings. Their initial findings were favourable towards inclusion. More recently Block and Obrušniková (2007) reviewed a ten year period from 1995 to 2005 and they concurred with the earlier findings of Block and Vogler (1994) also found numerous positive outcomes of inclusion in GPE.

## METHOD

From 2000 to 2008, this study looks at the literature on the topic of physical education for kids with impairments. Databases such as SPORTDiscus, Health Medline, ProQuest, and PsycINFO were used. We selected 114 papers from a wide range of publications for our analysis. The researcher reevaluated the articles and applied five criteria to narrow the focus of the study: (a) published in English (since this is the first language of two of the authors), (b) pertaining to physical education or physical activity with an emphasis on inclusion, (c) being an original study, (d) being published between 2000 and 2008, and (e) being published in journals (since books, unpublished papers, doctoral dissertations, and master's theses are not considered). After applying the selection criteria, 27 of the 114 articles that were initially obtained were deemed appropriate. The following review is grounded on Kudláček's (2006b) adoption of the Theoretical Model for the Study of Classroom Teaching (Dunkin ... Biddle, 1974) within inclusive PE. The study of teaching and learning, according to Biddle's 1974 Dunkin' Doughnuts theory, requires four main factors: the teacher's preparation, the students' context, the interaction process, and the final result. Factors that affect the presentation of information include teaching behaviour of PE teachers. Context variables include background of students, their skills, and attitudes toward physical activities

or previous experiences. Process variables include student-student interaction, teacher-student interaction, teacher behaviours and student behaviours. Within the sample of articles the prevalence of focus upon the variables articulated by Dunkin and Biddle (1974) was as follows (a) Presage variables - teachers (13 articles), (b) Context variables - students (2 articles), (c) Process variables - interaction in inclusive PE (9 articles), and (d) Product variables - effectiveness of inclusive PE (3). Some of the articles related to more than one key area as various authors investigated more than one variable within a study with particular overlap of issues related to process and product variables.

## RESULTS

### Presage variables – Teachers in Inclusive Physical Education

In accordance with Theoretical Model for the Study of Classroom Teaching (Dunkin & Biddle, 1974) articles focusing on teacher formative experiences, teacher training experiences, and teacher properties were included in the presage variables results.

#### Preservice Training of Teachers

In accordance with Sherrill (2004) it is important to prepare future physical education teachers engage with inclusive practices for students with disabilities in GPE settings. In order to prepare these teachers-in-training we must be able to measure and to understand their attitudes towards inclusion. Hodge et al. (2003) selected a purposeful sample of ten teachers-in-training all majoring in physical education and enrolled in an adapted physical education (APE) course to explore the meaning of practicum experiences. Over an eight week period as part of the APE course students participated in a Unified Physical Activity Program (UPAP). Data were collected via self-reflective journals. Results from the study revealed that the experience of planning and incorporating inclusive practices impacted favourably on the teachers-in-training overall

comfort level and outlook on working with students that have special needs in the classroom. Participants' attitudes towards an integrated physical activity setting were good at the study's conclusion. Some things that the students did a good job of teaching were getting into a pattern with the kids, having a wide range of activities, and designing lessons with a flexible mindset. As a result, significant encounters and conversations were able to take place. These students' first foray into practical experience was greatly enhanced by the UPAP program. Hodge et al. (2003) went on to say that a lot of what you learn in this practicum may be used in a PE classroom in no time. Hardin and Brent (2005) conducted research on the effects of physical education teacher education curricula on the self-esteem and competence of current PE instructors. The purpose of this interview was to gather information on the education, training, and inclusion of five recently certified instructors who worked with kids who had disabilities in physical education classes. Teachers were asked to sort and score a set of Q-sort cards, which are file cards containing personal remarks, based on their own self-perception. Teachers rated their own classroom experience as the most valuable tool for gaining knowledge about working with kids who have impairments, according to the results of the Q-sort cards. Important resources also included other instructors and the assigned coursework. Three out of the five educators had no prior expertise working with kids who had impairments, and the bulk of the faculty had only completed a single adapted physical exercise class. It is not enough to provide instructors with only one course in adaptive PE, as pointed out by Hardin and Brent (2005). The claims made here are consistent with those of Kozub et al. (1999), who posit that physical education teacher candidates' perception of students' differences and impairments is significantly influenced by their experiences in teacher preparation programs. Learning about the unique challenges faced by children with disabilities and how to accommodate those challenges is a the first step towards full inclusion and acceptability in PE programs.

Views on inclusion held by physical education instructors Teachers' mindsets have a critical role in inclusivity. Researchers can't do their jobs effectively without attitude instruments, which allow them to gather and analyse data. The research included in this evaluation made use of a variety of instruments. Hodge et al. introduced the PEJI tool, which stands for Physical Educators' Judgements about Inclusion (2002). Physical education teacher education (PETE) pre-service teachers' perspectives on the inclusion of students with disabilities in general physical education (GPE) are explored with this instrument. In order to determine a teacher's competency with regard to inclusive goals, the instrument may be broken down into three sections: (a) Social Judgement, (b) Contact, and (c) Planned Behaviour. Ten girls and eight men out of eighteen PETE pre-service and experienced instructors were chosen for the focus group. Every single one of the participants had already enrolled in a PE class specifically designed for kids with special needs. The new test was given to 172 PETE pre-service instructors to ensure its validity. The research uncovered three primary subscales, which are as follows: (a) opinions on inclusion vs. exclusion; (b) opinions on acceptance of students with impairments; and (c) opinions on perceived training requirements. Based on Ajzen's (1991) Theory of Planned Behaviour, Kudláček et al. (2002) created an instrument. The original ATIPDPE was amended by Kudláček (2006a) to ATIPDPE-R, which includes a larger number of questions in the attitude subscale, in response to recommendations from earlier research that used ATIPDPE. The three mental aspects of Inclusive Physical Education (IPE) that this instrument assesses are (a) perspectives on IPE, (b) subjective norms about IPE, and (c) perceived behavioural control in connection to IPE. According to Karper and Martinek (1985), the way teachers see their students' talents affects

both student learning opportunities and participation. Smith (2004) purposively selected seven experienced teachers to interview. He examined the inclusion of students with Special Educational Needs (SEN) in secondary school physical education. The use of open questions provided a greater range of questions and the opportunity to probe certain topics which arose in the interviews. Results illustrated the demands teachers face with inclusion. Teachers believed it was unsuitable to teach a full class of twenty eight students and also include SEN students within this context. 'Equal opportunities for all' was the general philosophy of all teachers, yet many students with SEN were not given the same opportunities as their peers. While team games were a strong and traditional part of the curriculum, all teachers collectively stated this area as the most difficult within which to actively engage in inclusive practices. Teachers highlighted individual activities as much more appropriate for instigation in inclusive practices but this by their very nature make it difficult to institute a philosophy of inclusion. Smith (2004) outlined that often students with SEN are expected to 'fit' into the curriculum, rather than adaptations made to ensure the inclusion of these students. He further suggests that for inclusion to take place, the curriculum needs to be more flexible and to move away from the strong focus on team sports. This study was one of the few to be based solely upon qualitative data and as such interpretation of result maybe opens to continued re-interpretation. In another study Morley et al. (2005) explored the perceptions of forty three secondary school teachers' views towards inclusion in mainstream physical education. Understanding, awareness, extra planning and organisation were highlighted as variables the teachers were aware that needed to be adapted. Teachers' perceptions of their own inadequacy and lack of confidence were mentioned, 'you want to help them; you want them to do their best, you want to include them but it's knowing how to adapt it (teaching and instructions) to suit them' (Morley et al., 2005). This suggests that Indoor and individual activities were seen as easier to include students in, while outdoor

and team activities were viewed as more problematic. The severity and type of disability was cause for concern as behavioural and emotional impairments were deemed the most challenging for successful inclusion. Teachers also remarked on the effect on the students without disabilities, 'I do think about other members of the group wondering if that person is holding them back' (Morley et al., 2005). Morley et. al. also highlight that the majority of teachers commented on the inadequate and lack of resources and support, and teacher training. Regarding training they commented, 'None at all, we are not trained' or 'It wasn't catered for in my teacher training' (Morley et al., 2005).

#### Teachers' Concerns and Perception about Barriers in Inclusive PE

For teachers to feel somewhat apprehensive about taking students with disabilities into their physical education is understandable. They would naturally wonder as to how they are going to include and motivate all students with and without disabilities. Lienert et al. (2001) interviewed thirty physical educators from Germany and United States to discover the concerns teachers have in regard to inclusion of students with and without disabilities in physical education. Purposeful sampling was used to select sixteen teachers from Berlin and fourteen from Texas. This study was directed by the Concerns-Based Adoption Model (CBAM). An interview guide comprised semi-structured questions and a demographic questionnaire was used. Concerns were reported for four of the seven stages of the CBAM, which were: (a) personal, (b) management, (c) consequence, and (d) collaboration, with management being of paramount importance. Culturally the teacher in the United States had more personal concerns and worries about everyday demands and competency to meet those demands the needs of pupils with disabilities. Some teachers in the United States did not try to teach the students with disabilities, instead they handed over responsibility to the para-professionals. The German teachers felt it was very important to have the choice whether to teach integrated classes or not. This research

implies that all educators were dissatisfied with the school's infrastructure, resources, and the disproportionate number of children with disabilities. Each country's educators placed a premium on students' ability to work together in a safe setting. In both nations, instructors were optimistic about the benefits of inclusion outweighing any potential drawbacks. Also looking at the topic of disability inclusion, Hodge et al. (2004) surveyed nine PE teachers from secondary schools to find out what they thought and did. Seven male and two female experienced instructors were selected for this research using deliberate sampling, as it was done in the previous one. Findings from the surveys and interviews showed that educators had mixed feelings regarding inclusion. Teachers who took part in the research had mixed feelings about inclusion; although they thought it was a wonderful idea in theory, they found that in practice, there were numerous obstacles to overcome. A common thread was the lack of resources, which made it impossible to provide each kid the time and care they needed, particularly those with severe impairments. The accessibility of resources was a factor that affected the effectiveness of instruction, according to most educators. When it came to making their classrooms safe and welcoming for all students, many educators were unprepared. According to their pre-service training, only five of the nine instructors received an adapted PE module as part of their undergraduate curriculum. On the other hand, it is difficult to guarantee a representative sample of physical education instructors from a research with just nine participants. In 2006, Meegan and MacPhail cast doubt on the widespread belief that PE instructors would devote themselves entirely to working with students who have special needs, arguing that universities aren't doing enough to equip future educators to welcome and include all students. According to Lieberman et al. (2002), who conducted research on the challenges faced by GPE instructors when including students with visual impairments, a lack of professional training was the most often cited obstacle. An

One hundred forty-eight instructors who had visually impaired pupils in their PE courses participated in an in-service session on the topic. The perceived hurdles confronting instructors were determined via a questionnaire that was issued before to the event. Findings showed that inadequate professional preparation was the biggest obstacle, cited by 66% of educators. Lack of programming or curriculum(57%) and equipment(63%) were further obstacles. Incorporating pupils with visual impairments into the classroom was a daunting prospect for many educators. In order to address the demands of PE instructors, Lieberman and colleagues recommended revising the curricula of teacher preparation programs. There is room for improvement in teacher training, which is an obvious area of concern when it comes to inclusion. A questionnaire was used by Fejgin et al. (2005) to investigate the connection between physical education teacher burnout and inclusion. The information was gathered from 363 physical education instructors in Israeli primary schools spread over 6 districts. Results showed a correlation between burnout and factors like the number of SEN kids in a classroom, the quality of accessible assistance, and working environment. There was shown to be a robust relationship between the social and structural aspects of a school and the likelihood of burnout. Depending on the degree of the kids' disabilities, these instructors also saw inclusion as troublesome due to the extra time it required, the disciplining of students, assessment, and classroom management. There was also a correlation between burnout and issues with behaviour, learning, and support systems. In line with previous research, Fejgin et al. (2005) brought attention to the fact that pre-service teachers get zero instruction on how to include physical education into the curriculum for kids with special needs. All around the world, this pattern keeps popping up. Data collection for the research presented here came from a mix of in-person interviews and questionnaires. Two studies relied on questionnaires, one on interviews, and a third on a hybrid of the two methods. In each of these trials, the results were different.

Overall, the main concerns and barriers identified were professional preparation, management and support.

#### Support Personnel in Inclusive Physical Education

Equal participation between all students in PE is strengthened by a combination of teacher and APE consultant, teacher and teacher assistant or teacher and peer tutor support systems (Murata & Jansma, 1997). Two main sources of support personnel, para-educators and APE teachers were identified in the articles consulted for this review, were considered vital to inclusive practices. Davis et al. (2007) distributed questionnaires to determine what actual were the responsibilities and training needs of paraeducators within physical education. Seventy six paraeducators responded to the questionnaire (99% female). Responses in this study revealed 61% believed that they were adequately trained for physical education, but surprisingly only 16% had received training in adapted physical education. The majority of the paraeducators interviewed had simply completed one-day training course. 38% participated in physical education with a student. The level of participation varied greatly from the majority escorting the students and giving prompt cues to directly working with the students during PE. Assisting in assessment and sharing individual educational plan (IEP) suggestions was carried out by 28%. Paraeducators felt they needed to know the IEP goals of each child to help develop and reinforce those goals. Encouragingly 90% were willing to be trained in physical education, but requesting incentives to do so. Authors highlighted five responsibilities that paraeducators can improve in physical education with students. These responsibilities were: (a) assistance with social interaction, (b) transfer from one activity to the next, (c) safety, (d) interaction with students, and (e) cooperative learning among students and reinforcing instructions for the teacher.

Probably the best and most effective form of support to a physical education teacher is that of the adapted physical education teacher. They have undergone specialised training and have a true understanding of the inclusion

process. A study by Lytle and Collier (2002) investigated APE specialists' perceptions of consultation. Six participants were involved in the study, four female and two male, with age ranging from thirty five to forty six years and caseloads of students ranging from twenty four to one hundred and ten. Data was collected through interview, field observations, researcher notes and focus group interactions. Results indicated that the skills, attitudes and knowledge of the APE specialist combined with the educational environment were influential factors in the types of services provided. The use of consultations and their implementation were often influenced by the social, intellectual and physical environment. All participants commented that no formal training in consultation was provided as part of their training. In another study Lytle and Hutchinson (2004) explored the experiences and roles of APE teachers primarily through the use of observations and interviews. Experienced teachers in APE were used in the study, four being female and two male. When the data were analysed various roles of the APE teacher were presented: (a) advocator, (b) educator, (c) courier, (d) resource coordinator, and (e) supporter/helper. There were some negative reactions to the supporter/helper role, as the situation of territorial issues with the GPE teacher often arose. Overall it was highlighted that the various roles in the consultation process is a huge part of the APE teacher's daily life. Specific training in consultation was not part of the participants' APE training. Lytle and Hutchinson suggested that more training in areas such as adult interactions and effective communication in the consultation process is required.

Kudláček et al. (2008) studied the nature of work and roles of public school adapted physical educators in selected school districts in the United States with the aim of adding to the information base to enable the improvement of service delivery and professional preparation. Participants of the study were 6 females and 2 males with experience teaching (range of 2–23 years) in the field of APE. Data collection included individual in-depth interviews, demographic

data sheets and interview notes. Results showed the differences in the nature of work among APE specialists. Participants had high teaching loads (44–90 students) and served wide range of schools (1–20), which created quite different teaching profiles. Most teachers were involved in APE consulting. Results also indicated the needs to incorporate issues of consulting into teacher preparation and change the university studies more relevant to “real life teaching”.

### **Context Variables – Students in Inclusive Physical Education**

Dunkin and Biddle (1974) highlighted in their Theoretical Model for the Study of Classroom Teaching the importance of studying students in learning process. Under context variables they focused on learner properties (students with and without disabilities), and school, community and classroom contexts.

#### Students without disabilities

The perception and attitudes of students without disabilities can have a substantial impact on the success of inclusion in a GPE class. From the previous studies inclusion of students with and without disabilities can be successfully implemented. In relation to this Verderber et al. (2003) used the theory of planned behaviour to investigate the intentions of middle school students to engage with students with severe disabilities in GPE. 350 grade sixth to eight students completed the Verderber Inventory of Students’ Intention to Participate in Inclusive Physical Education (VISIPIPE), with its validity proved at the commencement of the study. Results indicated that students believed they should work and play with students with severe disabilities, but these beliefs were primarily motivated by abiding with the beliefs of parents and teachers. In comparison students did not believe that friends had the same beliefs. Overall the study showed that teachers and parents can have an influence on middle grade student’s beliefs and attitudes towards others.

Other study, using the theory of planned behavior Kodish et al. (2006) examined the determinants of physical activity in an

inclusive setting. Kodish and colleagues used four classes containing one hundred and fourteen students aged ten to thirteen. Class one (C1) and class three (C3) were physical education classes that each had four students with autism included in them ( $n = 63$ ), while class two (C2) and class four (C4) were GPE classes without students with identified disabilities included ( $n = 51$ ). None of the students with autism has received any direct support within physical education. The physical education teacher used the Dynamic Physical Education Curriculum (DPE) which is positive towards inclusion. Questionnaires and electronic pedometers were used for assessment. The pedometer measured the steps taken and activity time over a two week period. Results showed that student’ intentions to be physically active lead in actual behaviour. Results also indicated that the subjective norm and perceived behavioural control were critical predictors of students’ intentions to be physically active.

The main message that is outlined in the studies above is that successful inclusion in physical education can take place effectively. The two studies including students with severe disabilities and autism, used questionnaires to establish their results. The third study used a pre and post-test design to establish their results on the inclusion of a student with muscular dystrophy. All the studies revealed that inclusion can be implemented without any negative impact on any of the students.

### **Process Variables – Interaction in Inclusive Physical Education**

In accordance with Theoretical Model for the Study of Classroom Teaching (Dunkin & Biddle, 1974) articles focusing on teacher classroom behavior and student classroom behavior were included in the process variables results. Studies describing the nature of interactions in inclusive physical education were selected for this section.

#### Experiences of Students with Disabilities with Inclusion

The purpose of a quality physical education programme is to direct and provide students with the knowledge and skills to be

always engaged in physical activity (Block, 2007). More inclusive PE programs mean that kids with and without impairments will participate side by side in class (Verderber et al., 2003). But, we must enquire as to whether or not these pupils want physical education and, if so, whether or not they get an equivalent amount of physical education as their classmates. In their study of nine primary school kids with disabilities and their participation in inclusive PE, Goodwin and Watkinson (2000) used a maximum variation intentional sampling strategy. Interviews, field notes and drawings were used to gather data from these physically education pupils who used wheelchairs, who were in the age bracket of 10 to 12. Ecological perception and affordance theory provided the theoretical framework within which Goodwin and Watkinson (2000) examined the students' experiences. 'Good days' were linked to themes of belonging, skilled engagement, and sharing in the rewards. In contrast, "bad days" were linked to motifs of being alone, having one's ability questioned, and having one's engagement limited. Rather than participating in a segregated environment or a customised program, students with disabilities favoured inclusive physical education. The research shed light on the elements that influenced both the good and bad experiences of disabled students. Hutzler et al. (2002) conducted research on the perspectives of Israeli PE students with physical impairments ranging in age from nine to fifteen. The study set out to determine what factors may be seen as restricting or facilitating the students' ability to feel included and empowered. The majority of the 10 kids (8 males and 2 females) were affected by cerebral palsy, and they were selected using a purposeful sampling method. A semi-structured interview using an eleven-point rating system was used. Sixty percent of the youngsters reported being the target of bullying from classmates who would mimic their gait, show sympathy, or even open their braces. Forty percent of pupils said that their PE classmates had been encouraging, and twenty percent said that they had

opportunities for social connection with other disabled children, although they "wouldn't like to be seen with them" (page number?). More over half of the students' remarks were to instances of physical activity-related failure. However, how about we look at it from the other angle? Investigating how inclusion impacts kids with and without impairments is critical. During playtime and PE, Faison-Hodge and Porretta (2004) measured how active kids were with and without impairments. This particular school was chosen on purpose since it included a general education classroom that included kids with mental retardation (MR). The research included 46 children in grades 4 and 5, ranging in age from 8 to 11 years, including 8 children with modest intellectual disability. By use of the Fitnessgram Progressive Aerobic Cardiovascular Endurance Run (PACER), the pupils' degree of physical preparedness was evaluated. During PE and playtime, students had their heart rates recorded and were also filmed. The results showed that compared to physical education, kids engaged in more moderate to vigorous physical activity (MVPA) during playtime. There was no difference in PE and playtime participation between MR kids and those with poor cardio-respiratory fitness. These findings might be the consequence of a fitness assessment module that students participate in as part of their physical education classes, according to Faison-Hodge and Porretta (2004). kids would have had a lot of time to complete tests, write up their findings, and help other kids during playtime, but now they get to choose what they want to do during that time because they don't have class. In conclusion, the research shows that MR kids can participate in PE classes. The school's history of incorporating MR children in physical education courses means that these groups do not normally reflect the GPE. outcomes rely in part on the severity of MR, which may effect the type of inclusion, and the outcomes may not be transferable to all other schools for this reason. A second research that used the Newcomb volleyball warm-up game and a balloon-based adaptation had favourable effects that were consistent with inclusion.

Kalyvas and Reid (2003) investigated the effect of sport adaptations on students with and without disabilities using a quasi-experimental factorial design. The factors being studied were participation and enjoyment of thirty five students aged seven to twelve, fifteen of which had a physical disability. These students were split into three different classes for the purposes of the study. Both the adapted and non-adapted games were played for fifteen minutes each for three classes. A combination of systematic observations, individual interviews and questionnaires were used to collect the data. Throughout the three classes students with disabilities preferred the adapted game, discovering it to be more enjoyable and they felt that their peers were more cooperative and helpful during the game. Statements of students without disabilities varied with age, the two younger classes enjoyed both games, finding the adapted game easier to play but still fun. The older students without disabilities considered the use of a balloon frustrating as it was harder to win points and the pace of the game was slower. All students did realise that the adapted game helped their peers with disabilities and did not have any objections to playing the adapted version. Overall during the adapted game all students were skilfully successful and had greater activity levels, indicating that the adapted game did not hinder their performance. Kalyvas and Reid (2003) believe that students with disabilities can be included in GPE programs once appropriate adaptations are made which do not compromise the experience for students without disabilities. If over a longer period of time whilst using adapted games, this approach could have an effect on the attitudes, interest and participation of students with and without disabilities.

The studies showed that experiences of students with disabilities greatly differ, some having good experiences and others having bad ones. Three of the studies focused on inclusion of students with physical disabilities while the fourth studied inclusion of students with intellectual disabilities.

#### Peer tutoring in Inclusive Physical Education

Peer tutoring has been highlighted as an effective support tool that can be used to assist

both the teacher and the student with disabilities. Fenrick and Peterson (1984) found that peer tutoring increased instructional time and helped to develop positive attitudes. The successful training and implementation of peer tutoring has provided encouraging results to date.

Lieberman et al. (2000) explored the effect of peer tutors on the activity levels of deaf students in GPE. Through the use of a purposeful sampling design, eight deaf students were gender matched with eight typically developing peer students. Peer tutors were trained for four to five thirty minute sessions in sign language and basic teaching strategies. An assessment of the tutors' competency was implemented through a theory and practical test. In total of thirty two classes were observed over a five month period. The System for Observing Fitness Instruction Time (SOFIT) was used to collect data. A single subject delayed multiple baseline design across participants was employed. Results showed that there was an increase in moderate to vigorous activity levels (MVPA) for deaf students. Interestingly there was also an increase in the peer tutors' MVPA. All students increased their levels of MVPA by at least 19%. Lieberman and colleagues (2000) indicated there was a great deal of value added to the peer tutors from studying teaching strategies and engaging in the process of feedback that ultimately helped them and motivate their disabled peers.

Klavina and Block (2008) studied the effect of nine trained peer tutors on the physical, instructional and social interaction behaviours of three students with severe and multiple disabilities (SMD) and peers without disabilities. The study observed forty six GPE classes. Each class was forty five minutes in duration, two to three times a week and containing twenty five to thirty students. Each class was videotaped with each SMD student wearing a microphone. Three instructional support conditions for SMD were used throughout the study: teacher-directed, peer-directed and voluntary peer support. The peer tutors underwent training, they used the Tip to Teach, Assist and Practice manual (TIP-TAP steps). After training, each peer tutor was

assessed through three trials; a score of 90% had to be attained. The results showed that during the teacher-directed instructional condition, interaction behaviour between SMD students and other peers was low across all participants. In contrast, the interaction between adult support personnel and SMD students was high. During the peer-mediated instructional condition, interaction behaviours with peer tutors had an immediate increase. Differing from the previous result, interaction behaviours with adult support personnel decreased for all students during the peer-mediated instructional condition. It was observed by teachers that students with SMD enjoyed being assisted by their classmates. Klavina and Block (2008) have outlined that social interaction behaviours showed low results throughout the study, which could indicate students did not engage in conversations or in nonverbal interactions not related to GPE class. During the voluntary peer support segment, the mean scores of interaction behaviours with other peers, not designated as peer tutors increased for all students with SMD. Inadvertently the teachers' interaction behaviour decreased during voluntary peer support. Overall positive results were denoted from this peer tutoring study from teachers, peer tutors and students with SMD.

Most recently Klavina (2008) studied the effect of peer-mediated and teacher-directed instructions on the activity engagement time of students with severe and multiple disabilities (SMD). She studied inclusive GPE sessions under two kinds of instructional support conditions for three students with SMD: (a) teacher-directed, and (b) peer-mediated. Instructional behaviour data showed that during peer-mediated support conditions the instructions provided by tutors were more frequent than instructions provided by teachers during teacher-directed conditions. Physical behaviour data indicated that peer-mediated conditions resulted in similar levels of physical behaviour for all students with SMD when compared to teacher-directed conditions. Also, for all students with SMD the activity

engagement time data was higher in conditions where peer tutors were involved.

Peer tutoring is an increasingly popular and highly successful strategy of support within physical education. With appropriate training this resource could be developed to its maximum potential with all students benefiting.

#### Social Interaction and Active Learning Time in Physical Education (ALT-PE)

Initially the topics of social interaction and ALT-PE were highlighted as two separate areas, but due to a lack of articles corresponding to the research criteria, these have been combined. The social interaction of students is a vital part of physical education. The sense of belonging within a group and creating friendships are valuable skills gained and developed through social interaction (Moffett et al., 2006). Therefore it is important to know whether students with and without disabilities, socially interact in physical education.

To establish this Grenier (2006) investigated an inclusive physical education class with sixteen students over a period of six months. One of the students had severe cerebral palsy and a visual impairment and the study used a social constructionist perspective. The data was sourced from interviews, observations, document review and journals. For the majority of the time, adaptations were made to include all students in the class. When adaptations could not be created, the student with a disability did different activities but with similar goal outcomes to the rest of the class. Students were often paired for activities and a focus on both skill development and social interaction was promoted in the class. Overall, the teaching was focused on the social interactions of students while learning and developing their skills. This led to greater acceptance and understanding of each other in the class. The results from this study were highly positive but could this have primarily been due to the small class size.

Place and Hodge (2001) studied the social inclusion of three girls with physical disabilities and nineteen students without disabilities in GPE during a six week softball

unit. Data was collected through observations, videotaping of classes and interviews. Analysis of data was conducted through the use of Academic Learning Time for Physical Education (ALT-PE) and the Analysis of Inclusion Practices in Physical Education Form S (AIPE-S). The students with disabilities did not receive any assistance in physical education but did in other subjects. Results indicated that students with and without disabilities rarely engaged in social interaction. The students with physical disabilities tended to stay and work together in class, often at a distance from the other students. Results also suggest the teacher did not emphasise any social interaction during the classes. Students with disabilities often felt neglected and awkwardness was observed between students though there was communication observed between the two groups of student did talk. There was no demonstration, praise or feedback provided by students with and without disabilities, but these interactions did take place between the students with disabilities themselves. Overall during class time, the students with disabilities spent more time on-task compared to their peers. It is evident from this study that social interaction needs to be encouraged and emphasised by GPE teachers.

Within the two contrasting studies, the teachers' focus and goals played a pivotal role in the students' opportunities for social interactions. One of the studies explored the inclusion of a student with cerebral palsy and a visual impairment. The second study looked at the inclusion of three students with physical disabilities. With only two studies in this section it highlights the need for more research in this area.

### **Product Variables – Effectiveness of Inclusive Physical Education**

Various studies have outlined that students with disabilities can be included in GPE without any negative effects on the other students' learning experience. In accordance with Dunkin and Biddle (1974) model that suggests studying immediate students' growth and long-term effects on learning in inclusive physical education, we have selected articles

studying the effect of IPE on learning of students with and without disabilities.

Obrusníková et al. (2003) investigated the effect of inclusion. They used a pre and post test evaluative case study design with a purposively selected sample. The aim was to evaluate the effect of including a student with muscular dystrophy who used a wheelchair into a GPE class of twenty one fourth grade students without disabilities where the student with a disability did not receive any direct support throughout the two weeks volleyball unit. The non-inclusive class comprised of eighteen fifth grade students. Results from the skill and knowledge tests showed that both classes improved on all measures of skills, and there was no significant difference between the gains of the two classes. The results of attitudinal questionnaire CAIPE-R (Block, 1995) results revealed that both groups had positive attitudes, but students in the inclusive class had slightly more accepting attitudes towards students with disabilities. Overall there was no significant difference found between the inclusive and the non-inclusive volleyball class. The results of the study are however based upon a very short time frame for true attitude changes to take place. A follow-up study to see if the attitudes had been maintained or changed would provide more depth to the study.

In another study, Block et al. (2001) conducted a twelve week study to determine the effects of partner training by students without disabilities to students with severe multiple disabilities. Twenty six students with severe multiple disabilities aged five to twenty one attending a Special Education school were partnered with twenty five partners from fifth and sixth grade students from a local school as part of the Special Olympics Motor Activities Training Program (MATP). Pre-testing of motor skills and interviews with parents was taken before the study began. Partners having undertaken four hours of training were assigned to a particular student. During the twelve weeks the teaching of the motor skills was solely the responsibility of the partner. Results showed significant improvement in motor skills and adaptive behaviours in

students after working with their partners. Observations were conducted by staff members and indicated that while partners and students were working together, partners were quite talkative and students made more effort than usual. Overall the study outlined that the training of students with severe multiple disabilities can be successfully carried out by fifth and sixth grade students once these students are adequately trained.

Similarly Ward and Ayvazo (2006) assessed the effects of class wide peer tutoring (CWPT) in teaching catching skills. The school selected in this study specialized in the inclusion of students with autism. Two students without disabilities and two students with autism in a kindergarten class of sixteen students were selected. Authors focused at the number of catches participants made during each session. These results were used to identify the level of engagement and the work completed by the students. The second measure focused on the number of correct catching skills highlighting which students with disabilities were able to perform skills that their peers were performing. Training of peer tutors was implemented in a single thirty minute session prior to the first intervention. The results indicated that the scores of performance and correct performance of the autistic students increased during peer tutoring session in comparison to their results during whole class instruction. Overall the results were positive, but one might question whether it was primarily due to the individual assistance the students with autism received rather than successful inclusion process of these students.

## DISCUSSION

Currently at undergraduate level of Primary and PE teacher training, there is minimum specific training for APE (Morley et al., 2005). Hands-on practicum experiences in schools, knowledge of the various disabilities, instructional and curricular modifications are examples of key material that needs to be incorporated into teacher training. Greater flexibility is needed in the curriculum of the higher education institutions (Lieberman et al., 2002, Smith, 2004). Immediate intervention

and re-structuring of training in these institutions needs to be introduced (Douthwaite, 1990). An example of one such program is the project "European Inclusive Physical Education Training" ([www.eipet.eu](http://www.eipet.eu)). This focused on competencies of GPE teachers in relation to IPE and provides guidelines for higher education programme (curriculum) development.

Peer tutoring seems to be well developed and highly successful element of support in physical education (Block et al., 2001, Klavina and Block, 2008). With correct training of the peer tutor students, it is evident that students with different types and severity of disabilities can be included in GPE (Block et al., 2001; Lieberman et al., 2000; Klavina, 2008). Other programmes available to help build awareness, understanding and cooperation between students are the Paralympic School Day, Awareness Days and Special Olympics Unified Games. Special needs assistants are increasingly being employed in schools in Ireland. With increased training in IPE, this support could be maximised in assisting the students and the teacher (Davis et al., 2007).

APE specialists are a fundamental support and resource for including students with disabilities in GPE (Lytle & Hutchinson, 2004; Lytle & Collier, 2002; Kudláček et al., 2008). Developing study programs at universities and teacher training institutions specialising in Adapted Physical Education/Activity would be greatly beneficial. Having study programs in APE would encourage more people to work in this area and raise the competence level of European professionals. Various studies revealed in the review that teachers found including all students in outdoor lessons more difficult due to issues of accessibility (Morley et al, 2005). The facilities and equipment need to be adapted to ensure participation of all students (Fejgin et al., 2005). Research that mirrors that of Davis et al. (2007) is needed in Europe, to establish the current status and training needs of SEN assistants. Peer tutoring studies could follow Klavina and Block (2008) and focusing on different peer tutoring interventions within the GPE environment.

Research looking at the attitudes of GPE teachers, Primary teachers and students with and without disabilities is needed to identify the needs of European educators and students. Research investigating the adequacy of the Primary and Physical Education teachers' preparation and their willingness to develop an inclusive environment is critical if there is to be a positive future for inclusive physical education across the diverse and changing society that is contemporary Europe.

### Perspective Paragraph

Inclusion in physical education can effectively work for the child with a disability (Goodwin & Watkinson, 2000) and it can work without negatively affecting peers without disabilities (Faison-Hodge & Porretta, 2004; Obrusníková et al., 2003). The success of inclusion is greatly increased when various factors such as support, personnel, training and positive attitudes exist. Studies showed successful and positive inclusive practice could be achieved in GPE even when sometimes all of the aforementioned factors were not readily available (Obrusníková et al., 2003). Europe is in the process of making a positive move towards greater inclusion of students with both mild to severe disabilities. Legislation is the vital tool to success, as it creates the blueprints for schools and communities to follow. If governments and professional organisations in Europe will support inclusive PE ultimately the experience of GPE of students with disabilities is likely to improve.

### REFERENCES

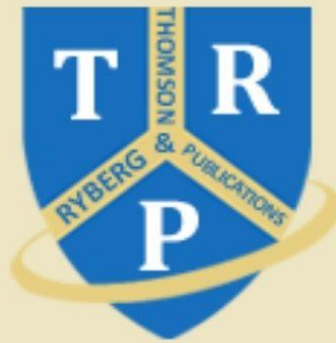
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- BAALPE. (1996). *Physical Education for Pupils with Special Educational Needs in Mainstream Education*. West Midlands: The British Association of Advisors and Lecturers in Physical Education.
- Block, M. (1995). Development and validation of the children's attitudes toward integrated physical education-revised (CAIPE-R) inventory. *Adapted Physical Activity Quarterly*, 12, 60-77.
- Block, M.E. (2007). *A Teacher's Guide to Including Students with Disabilities in General Physical Education*. (3rd ed). Baltimore: Paul H. Brookes Publishing Co.
- Block, M.E., Conatser, P., Montgomery, R., Flynn, L., Munson, D., & Dease, R. (2001). Effects of Middle School-Aged Partners on the Motor and Affective Behaviors of Students with Severe Disabilities. *Palaestra*, 17 (4), 34-39.
- Block, M.E. & Krebs, P. (1992). An Alternative to the Continuum of the Least Restrictive *Adapted Physical Activity Quarterly*, 9, 97-113.
- Block, M.E. & Obrusníková, I. (2007). Inclusion in Physical Education: A Review of the Literature From 1995-2005. *Adapted Physical Activity Quarterly*, 24, 103-124.
- Block, M.E. & Vogler, E.W. (1994). Inclusion in regular physical education: The research base. *Journal of Physical Education, Recreation and Dance*, 65(1), 40-44.
- Davis, R.W., Kotecki, J.E., Harvey, M.W., & Oliver, A. (2007). Responsibilities and Training Needs of Paraeducators in Physical Education. *Adapted Physical Activity Quarterly*, 24, 70-83.
- Douthwaite, R. (1990). Meeting Special Needs in Mainstream Schools: A Case Study. *British Journal of Physical Education*, 21 (4), 393-396.
- Dunkin, J. & Biddle, B. (1974). *The Study of Teaching*. New York: Holt, Rinehart and Winston.
- Faison-Hodge, J., & Porretta, D.L. (2004). Physical Activity Levels of Students With Mental Retardation and Students Without Disabilities. *Adapted Physical Activity Quarterly*, 21, 139-152.
- Fejgin, N., Talmor, R., & Erlich, I. (2005). Inclusion and burnout in physical education. *European Physical Education Review*, Vol III (1), 29-50.
- Fenrick, N.J., & Peterson, T.K. (1984). Developing Positive Changes in Attitudes Towards Moderately/Severely Handicapped Students Through a Peer Tutoring Program. *Education and Training of the Mentally Retarded*, 19, 83-90.

- Goodwin, D.L., & Watkinson, E.J. (2000). Inclusive Physical Education From the Perspective of Students With Physical Disabilities. *Adapted Physical Activity Quarterly*, 17, 144-160.
- Grenier, M. (2006). A Social Constructionist Perspective of Teaching and Learning in Inclusive Physical Education. *Adapted Physical Activity Quarterly*, 23, 245-260.
- Hardin & Brent. (2005). Physical Education Teachers' Reflections on Preparation for Inclusion. *Physical Educator*, 62 (1).
- Hodge, S.R., Ammah, J.O.A., Casebolt, K., Lamaster, K., & O'Sullivan, M. (2004). High School General Physical Education Teachers' Behaviors and Beliefs Associated with Inclusion. *Sport, Education and Society*, 9(3), 395-419.
- Hodge, S.R, Murata, N.M., & Kozub, F.M. (2002). Physical Educators' Judgements About Inclusion: A New Instrument for Preservice Teachers. *Adapted Physical Education Quarterly*, 19, 435-452.
- Hodge, S.R., Tannehill, D., & Kluge, M.A. (2003). Exploring the Meaning of Practicum Experiences for PETE Students. *Adapted Physical Activity Quarterly*, 20, 381-399.
- Hutzler, Y., Fliess, O., Chacham, A., & Van den Auweele, Y. (2002). Perspectives of Children With Physical Disabilities on Inclusion and Empowerment: Supporting and Limiting Factors. *Adapted Physical Activity Quarterly*, 19, 300-317.
- Kalyvas, V., & Reid, G. (2003). Sport Adaptation, Participation, and Enjoyment of Students With and Without Physical Disabilities. *Adapted Physical Activity Quarterly*, 20, 182-199.
- Klavina, A. (2008). Using peer-mediated instructions for students with severe and multiple disabilities in inclusive physical education: A multiple case study. *European Journal of Adapted Physical Activity*, 1(2), 7-19.
- Klavina, A. & Block, M.E. (2008). The Effect of Peer Tutoring on Interaction Behaviors in Inclusive Physical Education. *Adapted Physical Activity Quarterly*, 25, 132-158.
- Kodish, S., Kulinna, P.H., Martin, J., Pangrazi, R. & Darst, P. (2006). Determinants of Physical Activity in an Inclusive Setting. *Adapted Physical Activity Quarterly*, 23, 390-409.
- Kozub, F. M., Sherblom, P. R., & Perry, T. L. (1999). Inclusion Paradigms and Perspectives: A Stepping Stone to Accepting Learner Diversity In Physical Education. *QUEST*, 51, 346-354.
- Kudláček, M. (2006a). Components of Attitudes Toward Inclusion of Students with Physical Disabilities in Physical Education in the Revised "ATIPDPE-R" Instrument/Scale for Prospective Czech Educators. *Acta Universitatis Palackianae Olomucensis*, 37(1), 13-18.
- Kudláček, M. (2006b). State of knowledge about inclusion of children with disabilities into general physical education. *Proceedings of European Congress of Adapted Physical Activities*. (Available Online at [www.eufapa.eu](http://www.eufapa.eu))
- Kudláček, M., Ješina, O., Štěrbová, D. & Sherrill, C. (2008). The nature of work and roles of public school adapted physical educators in the United States. *European Journal of Adapted Physical Activity*, 1(2), 45-55.
- Kudláček, M., Sherrill, C., & Válková, H. (2002). Components/Indicators of Attitudes Toward Inclusion of Students with Physical Disabilities in PE in the ATIPDPE Instrument/Scale for Prospective Czech Physical Educators. *Acta Universitatis Palackianae Olomucensis*, 32 (2), 35-39.
- Lieberman, L.J., Dunn, J.M., van der Mars, H., & McCubbin, J. (2000). Peer Tutors' Effects on Activity Levels of Deaf Students in Inclusive Elementary Physical Education. *Adapted Physical Activity Quarterly*, 17, 20-39.
- Lieberman, L. J., & Houston-Wilson, C. (2002). *Strategies for Inclusion, A Handbook for Physical Educators*. U.S.A: Human Kinetics.
- Lieberman, L.J., Houston-Wilson, C., & Kozub, F.M. (2002). Perceived Barriers to Including Students With Visual Impairments in General Physical Education. *Adapted Physical Activity Quarterly*, 19, 364-377.

- Lienert, C., Sherrill, C., & Myers, B. (2001). Physical Educator's Concerns About Integrating Children With Disabilities: A Cross-Cultural Comparison. *Adapted Physical Activity Quarterly*, 18, 1-17.
- Lytle, R.K., Collier, D. (2002). The Consultation Process: Adapted Physical Education Specialists' Perceptions. *Adapted Physical Activity Quarterly*, 19, 261-279.
- Lytle, R.K., & Hutchinson, G.E. (2004). Adapted Physical Educators: The Multiple Roles of Consultants. *Adapted Physical Activity Quarterly*, 21, 34-49.
- Meegan, S., & MacPhail, A. (2006). Irish physical educators' attitude toward teaching students with special educational needs. *European Physical Education Review*, 12 (1), 75-97.
- Miller, S. (1994). Inclusion of children with disabilities: can we meet the challenge? *Physical Educator*, 51 (1).
- Moffett, A.C., Alexander, M.G.F., & Dummer, G.M. (2006). Teaching Social Skills and Assertiveness to Students with Disabilities. *Teaching Elementary Physical Education*, 43-47.
- Morley, D., Bailey, R., Tan, J., & Cooke, B. (2005). Inclusive Physical Education: teacher's views of including pupils with Special Educational Needs and/or disabilities in Physical Education. *European Education Review*, Vol II(I), 84-107.
- Murata, N.M., & Jansma, P. (1997). Influence of support personnel on students with and without disabilities in general physical education. *Clinical Kinesiology*, 51(2), 37-46.
- Obrusníková, I., Válková, H., & Block, M.E. (2003). Impact of Inclusion in General Physical Education on Students Without Disabilities. *Adapted Physical Activity Quarterly*, 20, 230-245.
- Place, K., & Hodge, S.R. (2001). Social Inclusion of Students With Physical Disabilities in General Physical Education: A Behavioral Analysis. *Adapted Physical Activity Quarterly*, 18, 389-404.
- Sherrill, C. (2004). *Adapted physical activity, recreation and sport: Crossdisciplinary and lifespan* (6th ed.). Boston, MA: McGraw-Hill Higher Education.
- Smith, A. (2004). The inclusion of pupils with special educational needs in secondary school physical education. *Physical Education and Sport Pedagogy*, 9 (1), 37-53.
- Stainback, W., & Stainback, S. (1996). *Inclusion: A Guide for Educators*. Baltimore: Brookes Publishing Co.
- Verderber, J.M.S., Rizzo, T.L., & Sherrill, C. (2003). Assessing Students Intention to Participate in Inclusive Physical Education. *Adapted Physical Activity Quarterly*, 20, 26-45.
- Ward, P., & Ayvazo, S. (2006). Classwide Peer Tutoring in Physical Education: Assessing Its Effects With Kindergartners With Autism. *Adapted Physical Activity Quarterly*, 23, 233-244.

Corresponding author's e-mail address:  
[martin.kudlacek@upol.cz](mailto:martin.kudlacek@upol.cz)

*The study has been supported by the research grant from Ministry of Education, Youth and Sports of the Czech Republic (No. MSM 6198959221) "Physical Activity and Inactivity of the Inhabitants of the Czech Republic in the Context of Behavioral Changes"*



**THOMSON & RYBERG PUBLICATIONS**

**[www.trpubonline.com/journals.php](http://www.trpubonline.com/journals.php)  
[trpub.online@gmail.com](mailto:trpub.online@gmail.com)  
or [ijesl.com@trpubonline.com](mailto:ijesl.com@trpubonline.com)**