

CHALLENGES IN ADAPTED PHYSICAL EDUCATION IN MAINSTREAM AND SPECIAL SCHOOLS IN THE BRICS COUNTRIES

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Abstract

Despite policies supporting inclusive education, the practical application of Adapted Physical Education remains inconsistent in the BRICS nations (Brazil, Russia, India, China, and South Africa). This study explored the challenges in implementing Adapted Physical Education in mainstream and special schools across the BRICS countries with the purpose of making recommendations for good practice. Using Bronfenbrenner's Ecological Systems Theory and the Cultural-historical Activity Theory, a qualitative approach was followed within an interpretive paradigm to examine barriers at various systemic levels, including policy implementation gaps, resource constraints, and teacher training deficiencies. The findings indicate that while BRICS countries have legislative frameworks supporting Adapted Physical Education, practical implementation is hindered by inadequate infrastructure, insufficient teacher training, limited curriculum support, and societal perceptions undervaluing Adapted Physical Education. Russia appears to have more structured Adapted Physical Education programmes, whereas Brazil, India, China, and South Africa report greater inconsistencies in policy enforcement. Participants emphasised the need for increased government funding, professional development, and community awareness to enhance Adapted Physical Education accessibility. The study highlights the necessity of bridging the gap between policy and practice, advocating for comprehensive teacher education, resource allocation, and cultural shifts to support Adapted Physical Education. The findings contribute to the discourse on inclusive education and provide recommendations for strengthening Adapted Physical Education implementation in BRICS nations.

Keywords: *Adapted Physical Education, BRICS countries, barriers, inclusive education, special education.*

1. Introduction and background

Every child, including learners with special educational needs (LSEN), has a fundamental right to education according to the Salamanca Declaration (1994), a framework for action in inclusive education compiled at the World Conference on Special Needs Education in Salamanca, Spain in 1994 (UNESCO, 1994). The Salamanca Declaration postulated that mainstream or regular schools should accommodate all learners, regardless of their physical, intellectual, social, emotional, and linguistic conditions (UNESCO, 1994).

Inclusive education, as a component of social inclusion, also forms part of the objectives of the original BRICS (Brazil, Russia, India, China and South Africa) organisation, which formed in 2009 with the primary objective to develop and strengthen their economies through collaboration and cooperation. Endorsing the principles of the Salamanca Declaration, the BRICS countries all have well-designed policies that mandate inclusive education (UNESCO, 2024).

One subject that forms an integral part of inclusive education is Adapted Physical Education (APE), which focuses on the adaptation of Physical Education (PE) to the needs of LSEN. However, according to Burnett (2020a) and Liang, Li, Wu, Hou and Sit (2022), some BRICS countries struggle to implement quality APE. The consequences of LSEN not being exposed to APE, often include sedentary behaviour leading into adulthood, with poor health results. Studies in individual BRICS countries show that challenges faced in the implementation of APE, include PE teachers feeling inadequately trained to work with LSEN (Burnett, 2020b), LSEN not always having access to appropriate learning environments, and LSEN often feeling more socially isolated than normal learners. Against this background, the aim of this study was to explore the challenges experienced in the implementation of APE across all BRICS nations.

2. Theoretical framework

The study was conducted within the framework of the Ecological Systems Theory (EST) of Bronfenbrenner (Bronfenbrenner & Morris, 2007) and the Cultural-Historical Activity Theory (CHAT) (Sannino & Engeström, 2018). The challenges were linked to the EST's five interconnected environmental systems and the proposed social, cultural, and historical process of a child's learning and development, incorporating context, collaboration, and the use of tools in shaping behaviour and learning, according to the CHAT.

3. Methodology

In this study a qualitative approach was followed within an interpretive paradigm. Purposive sampling was employed by selecting and inviting experienced experts in inclusive education, who were familiar with the particular country's APE systems in mainstream and special schools. Open-ended questionnaires, which had previously been peer-reviewed and refined, and individual, semi-structured interviews conducted using the Zoom application, were used to collect data. In total, 11 participants (one from Brazil, two from Russia, one from India, two from China, two from South Africa, and three anonymously) completed the questionnaire, while interviews were conducted with seven other participants (one from Brazil, one from India, two from China and three from South Africa). Thematic inductive data analysis was conducted. For trustworthiness, triangulation, member checking, peer debriefing and an audit trail were employed. All ethical requirements were adhered to and the study was approved by a relevant ethics committee (NWU-0299-22-A2).

4. Findings and discussion

The primary themes that came forth in the data analysis, were: *Disconnect and practical implementation*, *The perceptions of APE in the community*, *Resources and curriculum support for APE*, and *Training and qualifications of teachers*.

4.1. Disconnect between policy intention and practical implementation

Participants from Brazil, India, China and South Africa indicated that policies to implement APE in mainstream as well as special schools, are in place in their countries, but that the practical implementation thereof is lacking. For example, one participant from Brazil stated, "The biggest challenges are the practical applicability of the educational guarantees provided for in the legislation, there is still this gap between what is intended and what is implemented" (Questionnaire participant 1, Brazil).

In contrast, a participant acclaimed the provision of APE to learners in Russian mainstream schools, as well as those who cannot be accommodated in ordinary schools, as stated, "OLSEN students participate in physical education and sports in schools in Russia on an equal basis with ordinary children (inclusive classes..." (Questionnaire participant 2, Russia)

In agreement with the findings, several researchers (Parente & Pessoa, 2021) point out that the implementation of inclusive education policy is applied differently in the various states of Brazil. Similarly, discrepancies in India in the implementation of inclusive education policies still exist between the different states in the country. In this regard, Vos and De Beer (2018) asserted that the decentralised governance systems of Brazil, India and South Africa can present challenges regarding the implementation of policies and curricula because state, provincial or city governments can adapt aspects of the implementation thereof according to their own discretion. In South Africa, Muthukrishna and Engelbrecht (2022) contended that the White Paper 6 (South African Department of Education [SADE], 2001) attend more to the placement of LSEN in different types of schools (mainstream, full-service or special schools) than the quality of teaching and learning. In China, equal access to education for LSEN forms part of major educational reforms that have been implemented by the government during the last decade with the aim of enhancing learners' health, although Qiwen, Ruisi and Ali (2024) indicate that APE in regular classrooms still experienced implementation challenges. In contrast, Erdyneeva, Schetinina, Makarov, Sokolova, Rozhnova and Krokhnina (2021) and participants from Russia perceived the implementation of APE policies in Russia to be efficient and positive, although APE should be developed further.

4.2. Perceptions of PE and APE in the community

Several participants alluded to the influence of school community members' perceptions of PE, on the presentation of APE in the school. Some participants indicated that school communities often perceive PE as an inferior subject which impacts the implementation of APE, as one participant mentioned,

“Many mainstream schools in India prioritize academic subjects over physical education, leading to a lack of emphasis on developing inclusive PE programs” (Interview participant 4, India).

Even when aware of the value of APE, school communities’ negative views of inclusive education in mainstream schools, impeding APE, were noted. Perceptions of Indian communities regarding girls and disabled learners, and gender stereotypes in sport and physical activity in Chinese culture were also mentioned: “Traditionally, boys are more fit to do sports and physical activities, while girls should do housework and light activities, even more so with disabled learners” (Questionnaire participant 3, China).

Studies in all the BRICS countries (Burnett, 2020b and Liang et al., 2022) show that parents and communities often have a perception of PE as being inferior to other subjects, and a waste of time. In a study by Khumalo, Naidoo and Chetty (2022), LSEN felt that there is a need for improved governance in schools and communities with regards to APE, and in a national study on the status of PE in South Africa, Burnett (2020b) concludes that the low status of PE and APE is a result of the complex influences caused by misconceptions of the nature of PE, inadequate leadership roles, socio-political priorities, the non-academic status of the subject and poor resources. According to Kirilina et al. (2017), APE in Russia is underestimated and the holistic approach to life quality is undervalued, leading to the lower status of APE specialists and fewer university students enrolling for APE courses. Research by Qiwen et al. (2024) and Chennapragada (2021) supports the view that communities and parents’ lack of knowledge often prevents LSEN from participating in APE or sport.

4.3. Resources and curriculum support for APE

Several participants referred to challenges faced with regard to equipment, facilities, and limited time allocations for APE in mainstream and special schools in the BRICS countries.

One participant from South Africa stated that “there isn’t really any resources or support” (Questionnaire participant 6, South Africa). Other South African participants further referred to limited time and a lack of facilities for APE. The Brazilian participants also mentioned that, especially in certain regions of their country, limited resources were available for APE at mainstream schools.

In contrast, participants from Russia and China confirmed that there were sufficient facilities and resources available for the effective implementation of APE: “At the moment, most schools have either created or are creating all the conditions (premises and equipment) in schools for the presentation of APE to OLSEN students” (Questionnaire participant 2, Russia).

According to Dheesha (2017), the majority of Indian schools do not have sufficient facilities, infrastructure and equipment to involve LSEN in PE. Additionally, up to 75% of LSEN live in rural areas in India, with little resources available (Singh, 2021). The challenge of limited time in PE lessons to include LSEN, is also reported in studies in Brazil, Russia, India and South Africa (Burnett, 2020; Chennapragada, 2021; Kirilina et al., 2017). In Brazil, India and South Africa, PE teachers are overwhelmed by large classes, insufficient space, inadequate equipment and learner’s attitudes toward PE (Burnett, 2020a; Gale, Bhushan, Eidnani, & Graham, 2022). Other barriers in Brazil include poor infrastructure, lack of assistants and insufficient experience in working with LSEN (Greguol, Malagodi & Carraro, 2018). In China, although studies reported restricted access to PE for LSEN due to facilities and insufficient equipment, recent educational reforms in China seem to have addressed these barriers (Liang et al., 2022).

4.4. Teacher qualifications and training

The findings indicate a lack of PE teachers that are trained and/or qualified to teach APE in Brazil, India, China and South Africa. According to the participants from Brazil, pre-service PE teacher training does not include APE, one saying that “It is a shameful situation. Colleges won’t prepare you to receive students with special needs and teachers must pay more to get a post degree and be able to attend those students” (Questionnaire participant 1, Brazil).

The Indian participants pointed out that limited APE teacher training was offered at universities in India due to a lack of support in terms of state policies and available resources. Participants from China also referred to a shortage of trained APE teachers, with one stating that “Various universities in China have Bachelors’ Degrees in inclusive PE, but there is a shortage of specialised IPE teachers in the country” (Interview participant 3, China). Another Chinese participant reported outdated professional training in APE, and “...a lack of a unified national standard for APE to serve as a reference” (Questionnaire participant 3, China).

No participant from South Africa knew of any PE teacher training programmes that included APE training. Contrary to the lack of teacher training in the other countries, the Russian participants believed Russian PE teachers are well-trained to present APE efficiently

The experiences of the participants generally concur with findings reported in the literature. Although the Brazilian national guidelines for undergraduate PE training state that PE teachers should be trained to diagnose, plan and teach physical activities to learners with disabilities, Barros, de Faria Coelho and Martins (2023) found that there was still a lack of specialised teacher training in APE in the country. In Russia, teacher training in APE is available in a number of Russian universities and regulated by state standards, while continuing teacher education is mandated (Baranov et al., 2018). However, all Russian schools did not necessarily have teachers who were trained regarding the specific needs of such learners (Baranov et al., 2018).

In India, PE teachers need to take a post-degree certification course to be equipped and qualified to teach LSEN in the PE class. Although Chinese policies and governmental decrees show strong support for the training and enhancement of special education teachers and various universities offer high-level APE teacher training programmes, the study of Liang et al. (2022) showed that the lack of knowledge and training, and attitudes of APE teachers towards LSEN, were major factors impeding APE.

In South Africa, research shows low competence in teaching APE among PE teachers due to no pre-service APE training in PE (Muomezie, 2018), and only one South African university's academic yearbook includes a specific APE course (NWU, 2025).

5. Conclusion

Viewing the findings within the context of Bronfenbrenner's EST and the CHAT frameworks, the complex network of APE challenges within the activity system of APE in the different ecosystems of the BRICS countries, are exposed. Within the framework of the EST, the development of LSEN at the microsystem level is often negatively impacted by the lack of appropriate facilities and equipment and time allocation for PE, which can both be seen as tools within the framework of the CHAT. Untrained or underqualified teachers, and the perceptions of teachers and peers, which are part of the community component according to the CHAT, also impact the development of LSEN in the microsystem. Within the mesosystem, perceptions of the value of APE of school communities including school managers and parents (also part of the community component of the CHAT) impede the participation and development of LSEN (in Brazil, India and South Africa). The shortage of APE-specialised teachers due to inadequate teacher training programmes reflects flaws within the exosystems of Brazil, India and South Africa as well as in the community component of the CHAT.

Overall, most of the reported challenges relate to discrepancies in the implementation of national policies at district and school level, as reported in Brazil, India and South Africa, highlighting the negative effects of this relationship between the macro- and mesosystems of these countries. The implementation of APE policies, as the "rules and norms" component of the CHAT, should thus be improved to enhance the learning and development of LSEN in APE. Despite its limitations (the relatively small study population), the study makes a valuable contribution to the field of APE, education and health pertaining to BRICS.

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