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Reconceptualizing Human Kinetics and Physical Education Curricula in Sub-Saharan Africa: A Systematic Review of Pedagogical Trends and Policy Alignment

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Abstract

This systematic review offers a clearer, practice-oriented examination of human kinetics and physical education (PE) curricula in Sub-Saharan Africa by focusing on what is taught in schools, how instruction is delivered, and how closely current practices align with regional and global education and public health priorities. Although PE is increasingly recognised as a pathway for holistic development, health promotion, and youth empowerment, many curricula across the region remain fragmented, under-resourced, and only weakly connected to contemporary pedagogical and policy frameworks. Following PRISMA-guided procedures, peer-reviewed studies, policy documents, and curriculum frameworks published between 2000 and 2021 were systematically identified from major academic databases and regional repositories. Eligible sources were screened, critically appraised, and thematically synthesised to identify dominant teaching approaches, curriculum orientations, and the extent of policy alignment. The findings show that traditional, sport-centred, and teacher-directed pedagogies continue to dominate in many contexts. Physical education is frequently organised around drills, competitive sports, and performance outcomes, with limited integration of learner-centred methods, inclusive and adaptive teaching,

competency-based progression, or culturally responsive practices. Although recent reforms increasingly reference outcomes-based education, health-enhancing physical activity, and life-skills development, there remains a noticeable gap between policy intentions and everyday classroom practice. Persistent challenges include limited teacher preparation and continuing professional development, inadequate facilities and equipment, large class sizes, and weak monitoring and evaluation systems. From a policy perspective, partial alignment exists with continental and global agendas such as the African Union's Agenda 2063 and the Sustainable Development Goals, particularly SDG 3 and SDG 4, but these commitments are inconsistently reflected in curriculum design, assessment, and resourcing. In response, the review proposes a reconceptualised human kinetics-based curriculum model that integrates physical literacy, indigenous knowledge systems, digital pedagogy, and community-focused physical activity. By aligning pedagogical practice with policy intent, the review provides a practical framework to guide curriculum reform and support more equitable, sustainable PE systems across Sub-Saharan Africa.

Keywords: Human kinetics; Physical education curriculum; Pedagogical trends; Education policy alignment; Sub-Saharan Africa; Systematic review; Physical literacy; Sustainable development

1. Introduction

Human kinetics and physical education have a clear role to play in shaping healthier, more productive, and more socially connected societies. Around the world, they support school achievement, lifelong physical activity, public health goals, and social development. In Sub-Saharan Africa, however, the way these fields are expressed in curriculum and practice is still uneven and often not clearly grounded in strong theory or contemporary thinking. Much of physical education in the region developed through colonial-era school systems that promoted military-style drills, competition, and rigid teacher-led instruction, with far less attention to holistic movement development, lifelong participation, or indigenous physical cultures (Awe, 2021; Halliday, 2021; Isa, 2021; Jimoh & Owolabi, 2021). In many countries, human kinetics is also still emerging as a distinct academic and professional field, often folded into teacher education programmes that face limited funding, weak research integration, and modest connections to public health and youth development priorities (Boellstorff *et al.*, 2012; Lukaszewicz, 2020).

Even as physical activity is increasingly recognised as essential for tackling non-communicable diseases, improving youth well-being, reducing unemployment pressures, and promoting inclusion, school curricula often lag behind global pedagogical advances and interdisciplinary approaches.

Available evidence increasingly points to curricula that are fragmented, inconsistently implemented, and only partially aligned with national education reforms and wider policy frameworks. Many programmes still prioritise sport performance and competition over physical literacy, health promotion, inclusion, and psychosocial development. These gaps are reinforced by practical constraints such as limited teacher preparation and ongoing professional development, overcrowded classes, inadequate facilities and equipment, and weak mechanisms for monitoring curriculum delivery (Brogden & Kennedy, 2018; Zwangobani, 2016). At the same time, although policy documents across the region increasingly highlight education and physical activity as important for sustainable development and youth empowerment, these ambitions are not always translated into coherent, context-sensitive curriculum frameworks. This raises important questions about whether current systems are equipped to respond to rapid demographic growth, urbanisation, shifting health patterns, and evolving labour market demands in Sub-Saharan Africa (Adeshina, 2021; Isa, Johnbull, & Ovenseri, 2021; Wegner, Omine, & Vincent, 2021).

This systematic review is motivated by the need to bring together scattered empirical findings, pedagogical debates, and policy discussions into a clearer, consolidated picture of how human kinetics and physical education curricula are designed, taught, and governed across the region. Many existing reviews concentrate mainly on physical activity outcomes or sport participation, but provide limited insight into curriculum design, pedagogical trends, and policy coherence. By integrating these dimensions, this review moves beyond description toward a reconceptualisation that centres relevance, equity, and sustainability (Jones, 2017; Kansanga, 2020).

The main objective of this review is to critically examine pedagogical trends in human kinetics and physical education curricula in Sub-Saharan Africa and assess their alignment with education, health, and development policies. It specifically seeks to identify dominant instructional approaches, evaluate curriculum-policy coherence, and highlight gaps and opportunities that can guide curriculum reform, future research, and policy development across diverse Sub-Saharan African contexts (Akpan *et al.*, 2017; Oni *et al.*, 2018; Isa, 2020).

2. Methodology

This study used a systematic review design to bring together and make sense of existing evidence on how Human Kinetics and Physical Education curricula are structured and delivered in Sub-Saharan Africa, with particular attention to teaching approaches and how well curricula align with policy expectations. The review followed established principles for evidence synthesis in education, human kinetics, and physical education research. It was designed to be transparent and repeatable, while also remaining realistic about the everyday conditions of curriculum delivery in many Sub-Saharan African settings where resources are often limited and implementation challenges are common.

A broad and carefully planned literature search was carried

out across academic databases and scholarly repositories commonly used for education, sport science, and health education research. These sources included peer-reviewed journals, university thesis and dissertation repositories, and indexed conference proceedings. The search strategy used targeted keywords and Boolean combinations relating to human kinetics, physical education, curriculum, pedagogy, policy, teacher preparation, learner outcomes, and Sub-Saharan Africa. To reduce the risk of missing relevant evidence, the reference lists of key articles were also checked manually and any additional eligible studies were added to the pool. The search was limited to publications from 2012 to 2021 in order to focus on more recent curriculum debates, reforms, and pedagogical shifts that are most relevant to contemporary schooling and policy directions across the region.

Clear inclusion and exclusion criteria were set before screening began. Studies were included if they focused on Human Kinetics, Physical Education, Health Education, or closely related fields; addressed curriculum design, teaching practices, teacher preparation, learner outcomes, or policy frameworks; and were carried out in Sub-Saharan Africa or in comparable low- and middle-income contexts with strong relevance to the region. To ensure the review captured both practice and policy perspectives, a wide range of evidence types was included, such as empirical studies, systematic reviews, conceptual papers, policy analyses, and doctoral dissertations. Studies were excluded if they were unrelated to education or curriculum issues, focused only on biomedical outcomes without clear pedagogical implications, or did not provide enough methodological detail to allow meaningful interpretation.

After removing duplicate records, titles and abstracts were screened for relevance. Full texts were then obtained for studies that appeared potentially eligible and assessed against the inclusion criteria. Where there were disagreements in selection decisions, they were resolved through careful discussion until a shared decision was reached. Data were extracted using a structured template that captured key details such as country and setting, educational level, study design, curriculum emphasis, dominant pedagogical orientation, teacher-related factors, policy relevance, and reported outcomes. This structured approach made it possible to compare studies that differed in methods and focus.

Because the included studies varied widely in design, measures, and outcomes, the evidence was synthesised through qualitative thematic analysis rather than statistical meta-analysis. Data were coded using both inductive approaches (to allow themes to emerge from the evidence) and deductive approaches (guided by curriculum and policy concepts). Themes were refined in stages to reflect how curriculum intentions translate into teaching practice, how learners experience PE, what inclusion looks like in real classrooms, and which systemic barriers repeatedly limit implementation. Specific attention was given to curriculum-policy coherence, including how curricula connected with national education reforms, teacher education standards, and broader development agendas operating across Sub-Saharan Africa.

To strengthen credibility, the quality of included studies was appraised using adapted criteria that focused on clarity of purpose, appropriateness of design, transparency in data collection and analysis, and direct relevance to curriculum reform. Studies were not removed solely based on quality

ratings; instead, appraisal findings were used to interpret the strength and reliability of evidence supporting each theme, which is consistent with interpretive systematic reviews in education where contextual relevance often matters as much as methodological sophistication. Overall, this approach provided a strong foundation for

integrating diverse forms of evidence and generating context-sensitive insights into how Human Kinetics and Physical Education curricula in Sub-Saharan Africa can be reconceptualised to better connect pedagogy, policy priorities, and learner needs.

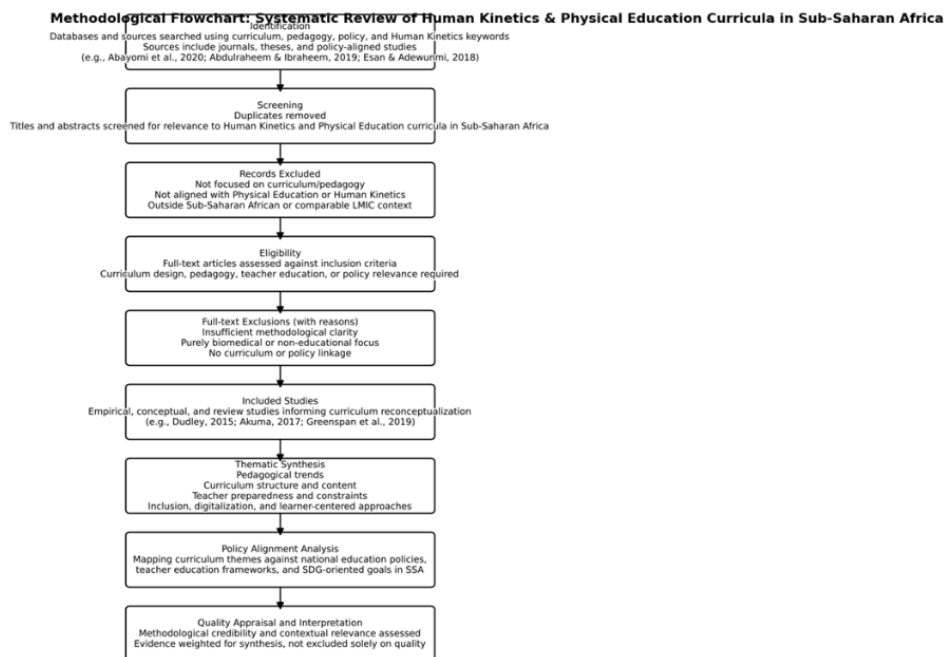


Fig 1: Flowchart of the study methodology

3. Conceptual Foundations of Human Kinetics and Physical Education

The conceptual roots of human kinetics and physical education lie in the idea that human movement is never “just physical.” Movement is shaped by the body and the brain, but it is also influenced by emotions, motivation, relationships, culture, and the environments in which people live and learn. Human kinetics, in this sense, is the broad interdisciplinary field that studies physical activity and movement behaviour and how they connect to health, performance, and society. It draws on several areas of knowledge such as biomechanics and exercise physiology (how the body moves and adapts), motor learning (how skills are acquired and refined), sport and exercise psychology (how thoughts and emotions influence participation), sociology of sport (how society and culture shape opportunities and meanings), and public health (how movement supports population wellbeing) (Hill-Herndon *et al.*, 2019; Kennedy & Lee, 2018). By combining these perspectives, human kinetics provides a more complete way of understanding why people move, how movement

affects them, and what conditions make active living more likely.

Physical education is the practical, school-based expression of these ideas. It takes what human kinetics explains in theory and turns it into learning experiences that can be taught, practiced, and assessed. Rather than focusing only on sport performance, physical education is meant to help learners develop physical competence, movement knowledge, positive attitudes, and healthy habits that can last well beyond the school years. At its best, PE supports students to build confidence in movement, understand health-related fitness, learn teamwork and self-management, and develop values that encourage lifelong participation in physical activity. In this way, physical education functions as the pedagogical bridge between scientific knowledge about movement and the everyday realities of helping young people learn to live active, healthy lives across the lifespan. Figure 2 shows the conceptual framework illustrating relationships among physical activity, physical fitness, health, and academic performance presented by Mncube, Uleanya & Dube, 2021.

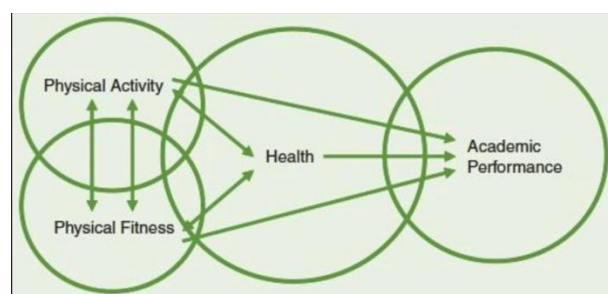


Fig 2: Conceptual framework illustrating relationships among physical activity, physical fitness, health, and academic performance (Mncube, Uleanya & Dube, 2021).

A range of theories has influenced how human kinetics and physical education (PE) curricula have developed around the world, and these ideas are becoming increasingly important for curriculum renewal in Sub-Saharan Africa. In the early years, many PE programmes were shaped by behaviourist and militaristic traditions. Lessons were built around discipline, repetition, drills, and physical conditioning. Success was measured mainly by visible performance and compliance how well students followed instructions or executed skills often leaving little room for creativity, learner voice, or connections to students' everyday realities.

Over time, constructivist thinking shifted the focus. Instead of viewing students as passive recipients of instruction, constructivist approaches treat PE as an active learning process where students build understanding through movement experiences, reflection, problem-solving, and interaction with others. Social learning theory adds another layer by showing how movement behaviours are learned in social contexts through observation, modelling, encouragement, peer influence, and the wider school environment (Despres-Bedward, 2019; Silk, Andrews, & Thorpe, 2017). More recent frameworks such as ecological systems theory and physical literacy take an even broader view. They emphasise that movement is shaped by the interaction between the learner, the task, and the environment, and that physical activity is a lifelong pathway

influenced by family, culture, access to safe spaces, school resources, social expectations, and wider structural conditions.

Seen through this lens, human kinetics goes far beyond school sport or basic fitness training. It includes health promotion, rehabilitation, recreation, occupational movement, and community-based physical activity. This wider scope matters greatly in Sub-Saharan Africa because of the region's youthful population, rich cultural diversity, and the growing reality of a "double burden" of disease where infectious diseases persist while non-communicable diseases such as diabetes and hypertension continue to rise (Centeio *et al.*, 2020; Ozer *et al.*, 2020). Human kinetics therefore offers a practical way to connect movement education to development priorities like disease prevention, mental health, social cohesion, employability, and gender equity.

Yet in many settings across the region, the field is still narrowly interpreted. Curricula often remain centred on competitive sports skills and examination-driven content, rather than building broad movement competence, physical literacy, inclusion, and transferable life skills. Strengthening the theoretical grounding of curricula can help shift PE from "sport for a few" to meaningful movement learning for all. Figure 3 shows figure of the core elements of physical literacy presented by Dudley, 2015.

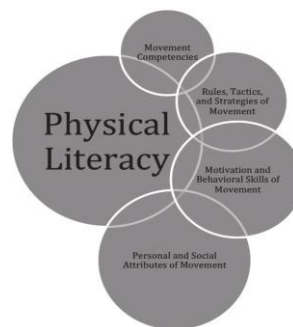


Fig 3: Core elements of physical literacy (Dudley, 2015).

Physical education curricula in Sub-Saharan Africa have not developed in a vacuum. They have been shaped by history, politics, and the realities of how schools are organised and funded. During the colonial era, physical training was often introduced for purposes that had little to do with holistic child development. It was commonly used to build discipline, support administrative control, prepare young people for military-style routines, and promote elite sport in ways that served colonial interests. In the process, many indigenous games, dances, and movement traditions that were already embedded in communities were overlooked or treated as informal rather than legitimate knowledge. After independence, many countries attempted to reform and "nationalise" school curricula and widen access to education, yet physical education often remained a marginal subject squeezed into crowded timetables and treated as less important than examinable academic subjects (Akomea-Agyin & Asante, 2019; Awe, 2017; Osabuohien, 2019). Later, structural adjustment policies, limited public investment, and exam-driven schooling further reduced attention to PE, weakening teacher preparation, reducing facilities and equipment, and slowing curriculum innovation (Greenspan *et al.*, 2019; Vaquero-Solís *et al.*, 2020). Even where there is renewed interest in youth development and

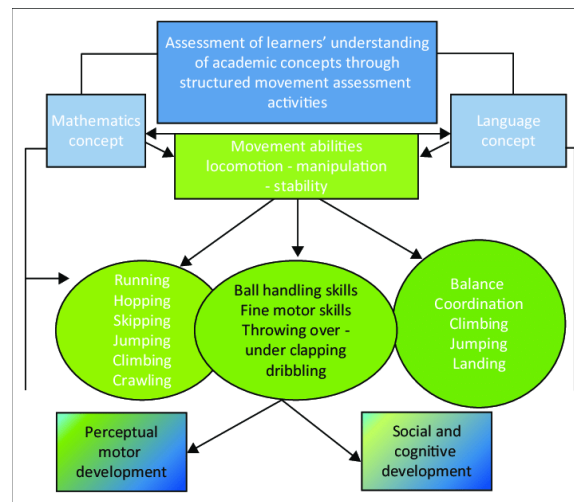
health promotion, progress in PE curriculum reform has been uneven across countries and across basic and secondary education levels.

Today, curriculum discussions increasingly call for PE to move beyond sport-centred models toward approaches that are health-enhancing, inclusive, and competency-based. This aligns with the global emphasis on physical literacy, which treats competence, confidence, motivation, and knowledge as interconnected foundations for lifelong physical activity. Such thinking challenges the old assumption that PE is mainly about producing high performers or winning competitions. Instead, it values diverse movement experiences, personal improvement, and social inclusion for every learner. For Sub-Saharan Africa, this shift creates space to incorporate indigenous movement practices, community-based activities, and culturally meaningful forms of physical activity that reflect learners' everyday lives (Rafferty *et al.*, 2016; Rose & Soundy, 2020). It also strengthens the link between PE and broader public health and social development goals.

The health relevance of human kinetics and PE is especially urgent in the region. Rapid urbanisation, increased screen time, and changing lifestyles are contributing to declining physical activity among children and adolescents, alongside

growing concerns about obesity, cardiovascular risks, and mental health challenges. At the same time, many communities still face undernutrition and limited access to safe, well-maintained spaces for play and exercise. Human kinetics offers evidence-based insight into how movement supports physical health, learning, and psychosocial

wellbeing, and school-based PE when taught well remains one of the most affordable and far-reaching platforms for building active, resilient, health-literate young populations (Amholt *et al.*, 2020; Cilar *et al.*, 2020). Figure 4 shows framework of structured movement educational activities presented by Pambudi, *et al.*, 2021.



Source: Adapted from Callahue (1976:10)

Fig 4: Framework of structured movement educational activities (Pambudi, *et al.*, 2021).

Human kinetics and physical education contribute far more than physical fitness or sport skills. When programmes are well planned and well taught, they can support wider development outcomes that matter deeply for young people and for society. Research has linked meaningful participation in physical education to improved academic performance, stronger social skills, better emotional regulation, and greater confidence in working with others. This is partly because movement does not only train the body it also supports learning. Movement-based learning strengthens “embodied cognition,” the idea that thinking and understanding are connected to physical experience, attention, and active engagement. In this way, physical education can reinforce cognitive development while also shaping habits of discipline, cooperation, and resilience.

In Sub-Saharan Africa, these broader benefits are especially relevant. Many countries face high levels of youth unemployment, growing urban pressures, and social exclusion that can limit young people’s opportunities and wellbeing. Human kinetics can contribute to workforce development by preparing learners for pathways in sport coaching, fitness and wellness, recreation, rehabilitation, community health promotion, and related services. When curricula are connected to labour market needs and local development initiatives, the field becomes more socially and economically meaningful, not just an “extra” school subject (Safieh, 2019; Sommer & Mmari, 2015).

A key idea that ties together modern theory, curriculum reform, and policy goals is lifelong physical activity. Contemporary human kinetics no longer treats movement as something that matters only in childhood or only within school timetables. Instead, it frames physical activity as a lifelong practice shaped by early experiences, social expectations, and access to supportive environments. This makes the quality of school PE especially important: inclusive, enjoyable, and meaningful experiences during adolescence can shape how young people feel about physical activity for years to come. For Sub-Saharan Africa,

encouraging lifelong physical activity is not only a health priority; it also has long-term economic value through reduced healthcare costs and a healthier, more productive population (Walker-Stevenson, 2017; Xu *et al.*, 2020).

Reconceptualising human kinetics and physical education curricula therefore requires more than minor adjustments. It calls for a coherent integration of theory, the broad scope of the field, historical realities, and contemporary development needs. It also requires moving away from narrow, inherited models toward curricula that are interdisciplinary, culturally responsive, inclusive, and clearly linked to real-life outcomes. This direction aligns with continental aspirations promoted by bodies such as the African Union and with global commitments like the Sustainable Development Goals, especially those focused on health, education, and reducing inequality. Grounding reform in strong conceptual foundations is essential if human kinetics and physical education in Sub-Saharan Africa are to genuinely support health promotion, social development, and lifelong engagement in physical activity across diverse contexts.

4. Overview of Physical Education Curricula in Sub-Saharan Africa

Physical education curricula in Sub-Saharan Africa have developed within layered historical, institutional, and socio-political realities that continue to influence what is taught, how it is taught, and the value attached to the subject at different levels of education. Much of this history can be traced to colonial schooling systems, where physical training was introduced mainly to instill discipline, build physical endurance, and prepare learners for manual labour or military-style roles. Early programmes focused heavily on drills, calisthenics, and competitive sports borrowed from European traditions, while indigenous games, dances, and culturally rooted movement practices were often ignored or treated as informal activities. After independence, many countries attempted to reshape education to reflect national identity and development goals, yet physical education

frequently remained on the margins, overshadowed by academic subjects perceived as more directly linked to economic progress (Chung, Kim & Lee, 2018; Keogh *et al.*, 2018).

As education systems expanded and reformed, physical education curricula began to reflect wider policy shifts such as mass schooling, outcomes-based education, and competency-based models. At the basic education level, PE is usually described as a compulsory subject aimed at supporting physical development, motor skills, and social learning. In practice, however, delivery varies widely. Curriculum documents often express broad goals related to fitness, coordination, teamwork, and health awareness, but these are not always supported by clear learning progressions or meaningful assessment. Limited instructional time, inadequate facilities, and pressure to prioritize examinable subjects frequently reduce PE to an occasional or symbolic presence in crowded school schedules (Pradhan, Wynter & Fisher, 2015; Yakubu & Salisu, 2018).

At junior and senior secondary levels, curricula tend to be more structured but also more constrained by examination systems. Physical education may be offered as an elective or absorbed into health education or general studies. Content often emphasizes sport-specific skills, rules, and performance outcomes, while physical literacy, inclusion, creativity, and lifelong activity receive less attention. Assessment practices commonly favour theoretical knowledge or elite performance, which can discourage participation and marginalize students with diverse abilities and interests (Fantaye *et al.*, 2020; Ivanova *et al.*, 2020).

Tertiary institutions play a critical role in shaping the field, as they train teachers, coaches, and sport professionals. Across the region, universities and colleges vary greatly in curriculum depth and focus. Some offer broad human kinetics or exercise science programmes, while others concentrate mainly on teacher preparation with limited interdisciplinary exposure. Differences in resources, staffing, and research capacity further influence graduate quality and pedagogical norms (Forrester *et al.*, 2018; Lall *et al.*, 2019).

Across all levels, sport remains the dominant organizing theme, often reinforcing gender and ability-based exclusions. Institutional constraints, regional differences, and weak implementation mechanisms continue to limit reform. Understanding these patterns is essential for rethinking physical education curricula in ways that are inclusive, culturally responsive, and aligned with contemporary health and development priorities across Sub-Saharan Africa.

5. Pedagogical Trends in Human Kinetics and Physical Education

Pedagogical practices in human kinetics and physical education (PE) across Sub-Saharan Africa reflect a field in transition, shaped by long-standing teaching traditions, emerging reform agendas, and the everyday realities of schools. For many years, instruction has been dominated by teacher-centred approaches that rely on direct instruction, demonstration, repetition, and tight control of lessons. These methods, inherited from colonial and militaristic schooling systems, place a strong emphasis on discipline, uniformity, and the mastery of prescribed sport skills. In many classrooms, teachers lead from the front while learners follow commands, leaving little space for creativity, choice, or critical engagement (Gallicchio, Cooke & Ring, 2017; Jing, 2016). Although such approaches can be practical in

overcrowded classes with limited resources, they often restrict student motivation, enjoyment, and deeper learning about physical activity.

More recently, curriculum reforms and global educational debates have encouraged a gradual shift toward learner-centred pedagogy. This approach views students as active participants who learn through exploration, cooperation, and reflection. In physical education, learner-centred teaching aligns with constructivist and social learning perspectives, which recognise movement learning as experiential and socially shaped. Across parts of Sub-Saharan Africa, these ideas are beginning to appear in curriculum frameworks and teacher education programmes, particularly through methods such as guided discovery, cooperative learning, and small-sided games (Alexander, 2018; Husband, 2018). However, turning these ideas into everyday practice remains challenging. Large class sizes, limited training opportunities, and assessment systems that still reward memorisation or performance outcomes often push teachers back toward familiar, directive methods.

Competency-based learning has also gained attention as a promising direction for PE. Rather than focusing on covering content, this approach emphasises the development of practical, transferable skills such as physical competence, health knowledge, teamwork, communication, and self-management. Within PE, it closely connects with the concept of physical literacy, which brings together competence, confidence, motivation, and understanding to support lifelong participation in physical activity (Baker, 2019; Predoiu *et al.*, 2020). Several countries in the region have begun to adopt competency-based education reforms, positioning PE as part of holistic learner development. Yet challenges remain in aligning teaching strategies, progression pathways, and assessment methods with these goals.

Inclusivity has become another important focus in contemporary pedagogy. Traditional sport-centred curricula have often favoured able-bodied, athletically gifted learners, leaving girls, learners with disabilities, and students from disadvantaged backgrounds on the margins. Inclusive PE calls for adapting activities, modifying rules, and creating supportive environments where all learners can participate meaningfully. In Sub-Saharan Africa, where gender norms, inequality, and limited support for special needs learners persist, inclusion is particularly significant (Hernández-Mendo *et al.*, 2020; Maher, 2020). While policy documents increasingly promote inclusive values, implementation is often constrained by limited teacher preparation, lack of equipment, and low awareness of inclusive strategies.

Technology use in PE is emerging slowly and unevenly. Although digital tools have transformed PE elsewhere, their use in Sub-Saharan Africa remains limited, especially in public schools. Nonetheless, growing access to mobile phones offers opportunities for simple, low-cost innovations such as activity tracking, instructional videos, and blended learning, particularly in tertiary institutions (Brinthaup & Pennington, 2019; Vezzosi, 2017).

Cultural responsiveness remains underdeveloped but vital. Integrating indigenous games, dances, and local movement practices can make PE more meaningful and inclusive. While such practices were historically marginalised, renewed interest highlights their potential to enhance engagement, cultural pride, and community connection.

Overall, PE pedagogy in Sub-Saharan Africa shows both continuity and change. Traditional approaches persist, but

learner-centred, inclusive, competency-based, and culturally responsive practices are gaining recognition. Turning these ideas into reality will depend on sustained investment in teacher education, professional support, and policies that genuinely reflect classroom contexts.

6. Policy Frameworks and Curriculum Alignment

Policy frameworks have a powerful influence on how human kinetics and physical education (PE) are valued, structured, and delivered in Sub-Saharan Africa. Over the past two decades, national governments, regional bodies, and global institutions have increasingly acknowledged physical activity and movement education as essential to health, learning, and social inclusion. On paper, this represents significant progress. In practice, however, the connection between policy ambitions and what actually happens in PE classrooms remains uneven, revealing both important gains and persistent gaps (Munthali *et al.*, 2018; Okolosi, 2020).

At the national level, most countries in the region formally recognise physical education within education policy frameworks, often as a compulsory subject in basic education and sometimes as an examinable option at secondary level. Education policies typically frame PE as contributing to holistic development, character formation, citizenship, and wellbeing. At the same time, national health policies increasingly promote physical activity as a preventive response to non-communicable diseases, mental health challenges, and sedentary lifestyles. Despite these complementary goals, alignment at curriculum level is often weak (Jimoh, 2016; Suleiman *et al.*, 2018). Many PE curricula continue to focus narrowly on sport skills and physical training, rather than adopting broader human kinetics perspectives that integrate health literacy, psychosocial development, and lifelong physical activity. Fragmentation across ministries of education, health, youth, and sport further undermines coherence, leading to parallel policies that are rarely harmonised in curriculum design.

Regional frameworks have attempted to address this disconnect. The African Union's Agenda 2063, alongside the Continental Education Strategy for Africa (CESA 16–25) and the AU Sports Policy Framework, explicitly positions physical education and sport as tools for youth empowerment, social cohesion, and sustainable development (Chukwurah, Nwadiani & Ngwoke, 2018; Momoh, 2017). While these documents offer strong normative direction, their influence on national curricula remains inconsistent. References to regional commitments often appear in policy texts without being translated into clear learning outcomes, teaching standards, or assessment approaches.

Global agendas reinforce these expectations. The United Nations Sustainable Development Goals especially SDG 3 on health and SDG 4 on quality education provide a clear rationale for strengthening PE curricula around inclusion, wellbeing, and lifelong learning. UNESCO and the World Health Organization further advocate for quality, inclusive, and learner-centred physical education. Yet, in many Sub-Saharan African contexts, limited resources, competing priorities, and weak implementation capacity restrict meaningful alignment with these standards (Abdulraheem & Ibraheem, 2019; Okebukola, 2017).

Overall, policy frameworks offer a strong foundation for rethinking human kinetics and physical education in the region. Realising their potential, however, requires moving beyond rhetorical alignment toward practical coherence

embedding policy goals into curriculum content, pedagogy, assessment, teacher development, and cross-sector collaboration. Without this, the promise of physical education as a driver of health, equity, and lifelong physical activity will remain largely unrealised.

7. Challenges, Gaps, and Emerging Opportunities

Reconceptualizing human kinetics and physical education curricula in Sub-Saharan Africa brings into sharp focus a dense web of structural constraints, pedagogical traditions, and policy implementation challenges, alongside a growing set of opportunities for meaningful reform. These dynamics are not isolated; rather, they interact in ways that shape how physical education is perceived, prioritized, and practiced across education levels and national contexts. Understanding this landscape requires attention not only to what is lacking, but also to why these gaps persist and how emerging reforms can be leveraged to reposition human kinetics as a central contributor to health, education, and social development.

One of the most persistent challenges is the marginal position of physical education within formal education systems. Although physical education is typically acknowledged in national education policies and curriculum frameworks, it is frequently treated as a secondary or expendable subject in practice. School timetables often prioritize examinable academic subjects, which are widely viewed as gateways to employment and social mobility, while physical education is perceived as recreational rather than instructional. This marginalization is reinforced by overcrowded classrooms, high student–teacher ratios, and competing curricular demands that limit time, supervision, and institutional support for sustained physical education delivery (Muwonge, Zavuga & Kabenge, 2015; Wilhelmsen & Sørensen, 2017). Where lessons are irregular or replaced, learners lose continuity in movement learning and the chance to develop confidence, competence, and motivation for lifelong physical activity.

Capacity limitations represent another deeply entrenched barrier. Across much of Sub-Saharan Africa, there is a shortage of adequately trained physical education teachers, particularly in rural and underserved communities. In many schools, physical education is assigned to generalist teachers with limited preparation in human kinetics, resulting in narrow content delivery and a reliance on traditional, command-style instruction. At the tertiary level, teacher education and human kinetics programmes frequently face staffing shortages, uneven research capacity, and curriculum content that does not consistently reflect contemporary interdisciplinary perspectives, weakening the pipeline of skilled professionals needed to drive reform (O'Brien *et al.*, 2020; Vaz *et al.*, 2015). These capacity gaps also reduce the likelihood that learner-centred and inclusive teaching strategies will be sustained beyond isolated pilot efforts.

Resource scarcity compounds these challenges and directly shapes what teachers can do. Many public schools lack safe open spaces, basic facilities, or equipment needed to support varied, developmentally appropriate activities. Where facilities exist, they may be shared, poorly maintained, or unsuitable for inclusive participation. This pushes teachers toward theoretical instruction, repetitive drills, or sport-only lessons that require minimal equipment. Resource disparities between public and private schools deepen inequities, as learners in better-resourced schools experience broader programmes and extracurricular opportunities, while those in

under-resourced settings receive limited exposure to diversified movement experiences (Hutzler *et al.*, 2019; Nketsia, 2017). Such gaps undermine policy claims about inclusive, quality physical education and reproduce wider educational inequalities.

Pedagogical constraints are closely tied to these structural realities. Teacher-centred approaches remain dominant partly because they are familiar and are seen as manageable in large classes, but they are also reinforced by assessment regimes and examination-oriented schooling cultures. Even where policy documents promote learner-centred, competency-based, and inclusive approaches, teachers often lack the training, confidence, and ongoing support needed to implement them effectively. Assessment practices can be especially limiting when they prioritize summative testing or theoretical knowledge rather than formative assessment of participation, movement competence, and personal development (Brinthaupt & Pennington, 2019; Baker, 2019). When teachers cannot assess what they are expected to teach in practical ways, innovation becomes risky and the curriculum narrows further.

Policy implementation gaps are another major driver of the disconnect between aspiration and classroom reality. Many national education and health policies acknowledge physical activity as essential to wellbeing, youth development, and prevention of non-communicable diseases, but inter-ministerial coordination is often weak. Fragmented mandates across education, health, youth, and sport can produce parallel initiatives that are poorly harmonized at curriculum level. Policies may be strong rhetorically but lack funding mechanisms, implementation guidelines, and accountability structures, while monitoring and evaluation of physical education delivery is often limited (Abayomi *et al.*, 2020; Esan & Adewunmi, 2018). Without dependable feedback systems, reforms remain on paper and quality improvement is difficult to sustain.

Cultural and social factors also shape reform prospects. In many communities, physical education remains undervalued compared to academic subjects, limiting support from parents and school leadership. Gender norms may restrict girls' participation, especially during adolescence, while learners with disabilities can face exclusion due to stigma and inadequate adaptive support. These social barriers intersect with resource constraints and teacher preparation gaps, reinforcing inequitable participation patterns and reducing the perceived legitimacy of human kinetics as a developmental and academic field (Reina *et al.*, 2019; Yada & Savolainen, 2017).

Despite these persistent challenges, there are meaningful opportunities for progress. The shift toward competency-based curriculum reforms in parts of Sub-Saharan Africa creates space to reposition physical education as a contributor to holistic learning outcomes. Competency-based frameworks emphasize transferable skills such as teamwork, self-regulation, communication, and health awareness, aligning with human kinetics perspectives that value physical literacy and lifelong engagement in physical activity (Predoiu *et al.*, 2020; Alexander, 2018). Where reforms include revised assessment strategies and sustained teacher professional development, they provide a stronger platform for translating curriculum intent into practice.

Innovations in inclusive and culturally responsive teaching also offer promising pathways. Increased recognition of indigenous games, dances, and local movement traditions

opens opportunities to enrich curricula in ways that resonate with learners' lived experiences and reduce dependence on expensive facilities or equipment. Inclusive pedagogical strategies such as adapting rules, modifying tasks, and using cooperative structures demonstrate that meaningful participation is achievable even in resource-constrained settings when teachers have the right training and support (Wilhelmsen & Sørensen, 2017; Hutzler *et al.*, 2019). Such approaches can also promote social cohesion and challenge gender and ability-based exclusions.

Technology presents another emerging opportunity, particularly through widespread mobile phone access. Even where advanced digital infrastructure is limited, low-cost approaches activity tracking, instructional videos, peer feedback, and simple digital portfolios can support learner engagement and formative assessment. At tertiary level, digital platforms expand access to research networks, professional learning communities, and updated teaching resources, helping to strengthen curriculum relevance and educator capacity (Brinthaupt & Pennington, 2019; Vezzosi, 2017).

Partnerships can further expand the opportunity landscape. Regional and global frameworks encourage quality, inclusive physical education, and donor-funded programmes, NGOs, and university-led initiatives have piloted school-based physical activity interventions and teacher training models. Where these initiatives are embedded within national systems, aligned with curriculum frameworks, and adapted to local realities, they can provide scalable models and strengthen policy–practice coherence (O'Brien *et al.*, 2020; Abayomi *et al.*, 2020).

Overall, reconceptualizing human kinetics and physical education curricula in Sub-Saharan Africa requires acknowledging that challenges related to marginalization, capacity, resourcing, pedagogy, and policy implementation are interconnected and historically shaped. Yet, there is genuine scope for transformation through competency-based reforms, inclusive and culturally grounded practices, appropriate uses of technology, and stronger policy alignment backed by teacher development and monitoring systems. With sustained political commitment and context-sensitive implementation, human kinetics and physical education can shift from the margins of schooling to become a strategic driver of health, equity, youth development, and lifelong physical activity across the region (Muwonge, Zavuga & Kabenge, 2015; Wilhelmsen & Sørensen, 2017; Abayomi *et al.*, 2020).

8. Conclusion and Implications for Curriculum Reform

This systematic review brings together evidence on the pedagogical trends, curriculum structures, and policy frameworks shaping human kinetics and physical education across Sub-Saharan Africa. Overall, the picture that emerges is one of strong historical continuity, uneven reform efforts, and considerable potential that has not yet been fully realised. In many settings, physical education is still delivered through traditional, sport-centred and teacher-directed approaches, even though policy documents increasingly recognise PE as important for health promotion, holistic education, and youth development. Across national, regional, and global agendas, the language of inclusion, competency-based learning, physical literacy, and lifelong physical activity is becoming more common, yet the link between these aspirations and what is designed in curricula and implemented in classrooms

remains fragmented. Persistent structural constraints, limited teacher capacity, resource gaps, and weak coordination across sectors continue to slow meaningful change.

For educators, the findings point to the urgent need to shift practice beyond inherited instructional routines toward approaches that improve learner engagement, support diverse abilities, and reflect local realities. Teachers are central to turning curriculum reform into classroom experience, but many have limited access to sustained professional development that would enable them to confidently apply learner-centred, competency-based, inclusive, and culturally responsive methods. Strengthening initial teacher education and continuous professional development in human kinetics is therefore crucial. Such programmes should prioritise pedagogical content knowledge, inclusive strategies, assessment literacy, and the integration of indigenous movement practices alongside sport and fitness concepts. Importantly, teachers need to be supported as active curriculum innovators who can adapt lessons to context, rather than being treated as passive implementers.

For policymakers, the review highlights that curriculum reform requires coherence and accountability, not only policy statements. Physical education needs to be repositioned as a core component of education and public health systems rather than an optional or marginal subject. Achieving this demands stronger alignment across education, health, youth, and sport policies; dedicated funding for facilities, equipment, and teacher training; and realistic monitoring and evaluation systems that track both implementation fidelity and outcomes. Continental and global frameworks can provide direction, but they must be translated into clear curriculum objectives, learning progressions, and assessment standards that reflect both human kinetics principles and local school conditions. Without operational clarity, policy alignment risks becoming symbolic rather than transformative.

Reconceptualising human kinetics and physical education in Sub-Saharan Africa ultimately requires a move away from narrow performance-driven models toward holistic, development-centred frameworks. Curricula should foreground physical literacy, health-enhancing physical activity, social and emotional learning, and lifelong engagement in movement. Integrating indigenous games, dances, and community-based activities can strengthen cultural relevance and widen participation, while low-cost digital tools where feasible can support feedback, assessment, and learner autonomy. Competency-based reforms offer a strong foundation, but their effectiveness depends on aligning pedagogy, assessment, and teacher support. Equity must also be built into reform design, ensuring meaningful opportunities for girls, learners with disabilities, and students in underserved communities.

Future research should deepen and strengthen the evidence base for reform. Longitudinal and intervention studies are needed to examine how curriculum change affects health, educational, and social outcomes across diverse settings. Cross-national comparisons could clarify how different policy choices influence implementation success. Participatory research that involves teachers, learners, communities, and policymakers can also help co-create curriculum models that are more realistic and context-sensitive. Finally, research that bridges human kinetics, public health, and education policy can support integrated and sustainable reform strategies.

In sum, human kinetics and physical education in Sub-

Saharan Africa sit at a critical turning point. Aligning pedagogy with policy ambitions and with local realities offers a real opportunity to reposition physical education as a strategic driver of health, equity, and lifelong physical activity. Realising this vision will require coordinated action from educators, policymakers, researchers, and communities to ensure that curriculum intent becomes lived experience in schools across the region.

9. References

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