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Reviewing the Primary Generalist Teacher's Role in Teaching Fundamental Movement Skills and Prosocial Behaviour

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Abstract

The delivery of the primary school physical education (PE) curriculum has been subject to ongoing debate in Western countries. In Australia, the primary school teacher is by and large considered a generalist. Previous research indicates that primary school PE programmes that employ the teaching of fundamental movement skills (FMS) and Hellison's Teaching Personal and Social Responsibility (TPSR) model have a positive impact on children's development by increasing motor skill proficiency, positive values, autonomy, and prosocial behaviour. While both generalist and specialist teachers are responsible for helping children develop FMS, they are also required to help children identify their emotional, social, physical and intellectual characteristics. While FMS might provide optimal support to the development of motor skills, TPSR can help develop social skills. The challenges involved for the primary generalist PE teacher in understanding the pedagogical content knowledge required to teach and evaluate both FMS and TPSR is an under researched area. Specifically, there is a lack of research on pedagogical content knowledge, the challenges and the content required for primary generalist teachers to implementation both FMS and TPSR. Therefore, the issue of what constitutes effective pedagogical content knowledge along with the organization of the educational process related to the discipline of PE for the primary generalist teacher requires further attention. Structured FMS and TPSR professional development hold considerable promise for supporting active, child-centred learning environments for primary PE teachers and presents an adaptable framework for implementation. This narrative review explores the advantages and challenges for primary generalist teachers in teaching and learning FMS and TPSR. Practical implications to improve the PE profession are suggested to re-focus professional development efforts for primary generalist teachers, locally, nationally and globally, to concentrate on the expansion of a strategic and longstanding program intended at merging FMS and prosocial frameworks.

Keywords/key phrases: teaching personal social responsibility, fundamental motor and movement skills, primary generalist, primary school

1. Introduction

Physical education (PE) in primary schools is an ideal vehicle to promote life-long learning in physical activity via the development of fundamental motor skills (FMS) combined with teaching prosocial behaviour (i.e., social and emotional learning). Prosocial behaviour is a valuable life skill for children, as knowing how to get on with others promotes positive interactions, builds relationships, and can help children feel connected to others. Practicing prosocial skills can stimulate the development of emotional regulation (being able to manage a range of emotions), social skills, and social competence; problem-solving skills, conflict resolution skills, and responsible decision-making in children. The latter is generally labelled positive youth development (PYD).

Given the social character of PE, it is an appropriate means of developing children's personal and social skills, such as personal and social responsibility, cooperation, and other prosocial skills (Parker & Stiehl, 2005). According to Goudas and Giannoudis (2008), one of the reasons that PE and sports are suitable contexts for learning these skills is the transferability of these skills to other domains in life (Martinek et al., 2001). Moreover, it has been suggested that PE can positively predict prosocial behaviour (Hui et al., 2022). Even though there is an increasing interest in the role of in the promotion of personal and social development, it is important that by children simply participating in PE and sports does not automatically lead to positive outcomes (Cryan & Martinek, 2017). Therefore, it is the responsibility of PE teachers to create the pedagogical circumstances under which positive outcomes for children can be obtained.

As Petitpas et al. (2005) noted, programs that promote psychosocial development are those that use activity as a vehicle to provide experiences that promote self-discovery and teach participants life skills in an intentional and systematic manner. In addition, these programs have clearly identified goals and strategies to enhance the generalizability and transfer of life skills to other important life domains. While the development of personal and social skills seems to be an extensively accepted goal of PE, and although the body of evidence on this topic is developing, the literature currently appears to be fragmented in terms of terminology, the methods used, and the resulting conclusions when considered from a primary generalist teacher standpoint. However, prosocial skills need to be explicitly taught, practised and reinforced, as with any new skill. Teachers should provide ample opportunities to continue skill development by encouraging actions such as helping, sharing and volunteering while simultaneously teaching FMS and prosocial behaviour strategies. Primary school teachers have opportunity to integrate both FMS and PYD components along with educative initiatives into a broader PE process.

It has been suggested that the generalist primary school teacher, a qualified teacher but with limited training in PE, has insufficient expertise and finds PE, with its distinctive content, difficult to develop competence in (Talbot, 2008). Nevertheless, in many primary schools, PE is usually taught by generalist classroom teachers, many of whom are likely to have little PE teacher training or have partial, or inadequate, human movement discipline knowledge or the required skills to implement both FMS and PYD. In turn, this potentially diminishes PE's potential learning effects in primary school-aged children. This is supported by the view that a lack of specialist PE provision in primary schools is perceived to compromise the quality of PE offered (McKenzie et al., 1993).

Arguably, since 1993 little has changed. It is viable, although there is a need to explore this prediction with more robust research designs, that children may be more active if they had a specialist primary school teacher who ‘modelled’ both FMS and PYD in an effective way.

Programmes aimed at promoting positive values, life skills, and prosocial behaviour among children through physical activity (Hardcastle et al., 2015) are increasing in numbers. Nonetheless, not every programme has been effective in promoting these adaptive outcomes, both from a PYD and FMS perspective. Supporting children’s holistic development necessitates a high-quality PE programme with clearly defined objectives, effective content, and clear methods of delivery. Together with these qualities, it is important that the programme is founded on social psychological theory that delivers an explanation of the mechanism by which manipulable psychological factors impact positive values and behaviours and outlines how the values and behaviours can be promoted in the social environment of young physical activity participants (Toivonen et al., 2019). In this sense, PE provides children with opportunities to improve fitness, to be active, and to counter societal trends towards increased sedentary behaviours. Moreover, it impacts positively on learning and behaviour in the classroom.

According to Bandura’s (1986) Social Cognitive Theory, children learn by viewing the behaviour of others and emulating these behaviours. As teachers are role models to children, it is plausible that a child’s learning in PE will vary depending upon whether the teacher is a generalist PE teacher or a specialist PE teacher based on pedagogical and discipline specific knowledge. For instance, the positive effect of modelling on children’s behaviour is supported in primary school PE lessons with those taught by PE specialists shown to participate in 57% more moderate - vigorous intensity physical activity with a concurrent increased emphasis on the promotion of physical fitness (McKenzie et al., 1993). Again, it is debatable if anything has changed since 1993.

To the extent that primary school teachers are considered to possess specialist pedagogical knowledge, they are viewed as specialists in educating young children in a discipline-specific area. Consequently, expertise and interest has meant that some areas of the curriculum, such as PE, are most appropriately taught by a teacher with specific skills and experiences which may warrant specialisation. Yet this is frequently the exception and not the norm. Generally, teacher-centred styles are positively associated with increased FMS learning and skill development, while student-centred styles have not (Zeng, 2016). Regardless of teaching style, PE teachers are of utmost importance to successfully integrate PYD and teach FMS into primary school PE. For instance, how teachers motivate young people, and how instructors evaluate and recognise effort and achievement, play a significant role (Gould & Carson, 2008). While motivation is important, as prior research has consistently demonstrated that generalists have lower levels of confidence to teach primary physical education (e.g., Randall & Fleet, 2021), this may be a barrier to the intrinsic motivation of generalist teachers and the delivery of quality physical education. Furthermore, teachers, who through their behaviours and communications create task-involving environments, can provide direct psychological and behavioural benefits to their students (Atkins et al., 2015). However, this can be both positive and negative depending on the teacher’s confidence and motivational levels. The unknown consequence is the impact that this may have on children. Untrained or unskilled teachers do not have sufficient experience in providing instruction that can promote the kinds of values and life skills that may enrich children’s experiences of FMS and their future social development.

In Australian school settings, primary school teachers and their associated classrooms have been traditionally viewed as self-contained, with the respective classroom teacher responsible for instruction across the full range of learning areas (Mills & Bourke, 2020). This includes discipline areas such as English, mathematics, science, the arts and humanities. Within this paradigm, primary school teachers and their classrooms have been considered as generalist teachers in terms of their subject matter knowledge (Mills & Bourke, 2020). In Australia and much like many Western countries, disruptive behaviour is consistently regarded as one of the biggest concerns and challenges for PE teachers. Proactive planning requires primary generalist teachers to provide children with structured lessons, which begins with the establishment of clear expectations, rules and routines, followed by the production and implementation of well-planned and well-presented lessons which are individualised to the needs and interests of children.

There is increasing interest from researchers and education professionals about the potential for PYD-based initiatives in PE that can positively impact prosocial behaviour that can transfer to academic-related outcomes, including classroom behaviour. Children's positive learning experiences and on-task behaviour during PE are associated with academic success and positive outcomes beyond the school years (Fraser-Thomas et al., 2005), helping teachers explicitly prioritise meaningful experiences for children while simultaneously helping teachers teach FMS.

Professional expectations are behaviour controlled by external sources (i.e., doing it because it is a requirement rather than choosing to do it) and is the least autonomous form of extrinsic motivation (Spittle et al., 2022). However, teachers are often faced with children who are learning what it is to engage, to respect, to value their peers and teachers in a dynamic and unpredictable PE environment. Such values require teaching. Therefore, primary generalist PE teachers are optimum targets for the introduction of PYD and prosocial behaviour models such as teaching personal social responsibility (TPSR).

The TPSR model is recognised internationally as a method to foster autonomous, self-directed activity that can empower children to engage in decision making and to take responsibility for their own actions and their relations with others within a physical activity context. The goal of the TPSR model is to have the participants (i.e., children) adopt and transfer these skills to their everyday life. Nonetheless, while primary generalist teachers can promote prosocial behaviour by modelling daily prosocial values and caring routines during physical activity tasks, the assumption commonly made is that the teacher has the necessary skills in both FMS and prosocial models such as TPSR. An initial starting point is defining what PE and FMS constitute and why they are important in today's contemporary curriculum.

1.1 Physical Education and Fundamental Motor Skills (FMS)

Establishing healthy lifestyle behaviours in primary school children is important, as these behaviours are likely to track into adulthood (Tay et al., 2021). Low levels of physical activity among children, globally and locally, is a pressing issue, as physical activity levels tend to decline as children transit into adolescence (Ortega et al., 2013). Evidence from previous studies suggest that this transition period is a critical period to intervene in children's physical activity behaviours as children begin to take responsibility for their participation (Wang et al., 2020). Furthermore, health behaviours adopted at this stage have shown to track into adulthood

(Craigie et al., 2011). However, across their educational journey, primary school children should not only develop academically, but should also develop the physical skills, values and behaviours that will help them develop physically and emotionally.

Physical education is designed and developed mainly to improve the physical development and motor skills of young children. Physical education also plays a central role in delivering opportunities for children to adopt a healthy lifestyle, develop motor skills and accomplish personal and social skills needed to reach their full potential in life. Yet PE has two sides: training and education (Currie, 2013; Griggs, 2012), both of which require pedagogical content knowledge in human movement and motor control, inclusive of motor development, motor learning, motor behaviour and motor skill. The movement and physical activity dimensions have a strong focus on children's acquisition of motor skills in the early primary years. Physically competent children enjoy greater social success than do physically inept children.

The proposition being that PE can be used as an intervention strategy to enhance the peer status of physically incompetent children by improving their motor skills (Evans & Roberts, 1987). The latter is often denoted as physical literacy, defined as the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities (Whitehead, 2007). The PE domain necessitates teachers to teach children the knowledge, skills and behaviours that permit them to acquire good health and live a healthy lifestyle, understand the role of physical activity in ensuring good health and engage in physical activity. Those skills considered fundamental are often linked to the skills that are inherently integrated in common sports. Yet there is also a degree of pedagogical and anatomical appropriateness needed to effectively teach, progress, regress (if needed) and measure FMS.

Fundamental motor skills (FMS) are movements that have specific observable patterns and are part of a movement continuum that begins before birth and continues throughout life. (Logan et al., 2018). An FMS includes the basic elements of a particular movement and does not emphasise the combining of a variety of FMS into complex skills. With exposure to movement experiences the children start to learn FMS that will be refined through practice, instruction and modelling. Children who master FMS in the early primary years will be more likely to be active and enjoy a range of recreational and sporting activities (Bolger et al., 2020). Each FMS is considered in relative isolation from the others. Basic FMS comprise:

- Locomotor skills such as running, jumping, hopping, galloping, rolling, leaping and dodging.
- Manipulative skills such as throwing, catching, kicking, striking and trapping and
- Stability skills such as balance, twisting, turning and bending.

Traditional FMS are a pedagogical focus in PE programs, incorporating FMS development into curriculum expectations. PE teachers play a critical role in the development of physical literacy (the confidence and competence to apply a variety of physical skills in several different physical contexts (Grauduszus et al., 2023) appropriate activities that promote motor competence and the ability to participate in and accomplish increasingly complex tasks.

Childhood physical activity (PA) promotes the development of FMS (Zeng et al., 2017). Motor skill proficiency, in turn, is known to be an important factor accounting for future PA

engagement and sports motivation (Ericsson, 2011). Thus, motor skills play an essential role in the basis of a life-long active lifestyle. Moreover, the mastery of motor skills, incorporating gross and fine motor competence, has not only been shown to contribute to physical health and physical development, but also substantially contributes to cognitive and social development. To this end, it is necessary to develop the skills and competences that can help children adapt to these different demands (Larson, 2000). Yet little is known about the levels of FMS understanding that the primary generalist teacher possesses. Despite the importance of FMS in overall physical development, consideration of the needs of primary generalist teachers and their respective roles in FMS teaching should consider integration of professional development to ensure overall programme fidelity.

Teachers can scaffold lessons in such a way that FMS are learned before advancing to these complex tasks and ensure that children achieve success before moving to the next stage of skill complexity; for example, children must first learn how to jump and land properly before they can learn how to do a long jump in a track and field event context. In this regard, skilled PE teachers are important agents in facilitating skill development in children. In contrast to primary generalist teachers, specialist PE teachers are advantageously placed to ensure that PE lessons receive quality planning, teaching, and learning, while ensuring continuity and progression as the student develops and grows.

From a behavioural and prosocial behaviour perspective, improvements in self-esteem and confidence that are associated with a sound development in motor skills can have a flow on effect to other areas of a child's education (Erickson, 2011). Nonetheless, much like FMS, positive prosocial behaviour is a skill that requires teaching. The knowledge and pedagogical methods taken by the teacher is of paramount importance in the early primary years to help children accomplish both motor skill competence and the personal and social skills expected. In this regard, both generalist and specialist primary teachers have different knowledge and experiences with PE combined with the facilitation of FMS development in primary school-aged children.

In recent years, there has been an increasing number of studies conducted to examine the influence of the primary generalist teacher's aptitude to correctly teach FMS and associated prosocial behaviours. Faulkner & Reeves (2000) revealed the lack of competence primary generalist schoolteachers perceive they have in teaching PE. These findings suggest that the teacher's experience of PE and their lack of perceived competence in delivering PE may influence children's learning. Notwithstanding the perceived lack of competence, it is expected that a primary generalist teacher has appropriate pedagogical content knowledge to teach motor development principles and FMS. Added to the challenge of integrating theory and evidence-based programmes that consider FMS and TPSR and applying them in practice requires adequate theoretical and pedagogical content knowledge by the generalist teacher.

For interventions to be effective, an improved understanding of the factors influencing children's PE behaviours is important from a learning and behavioural viewpoint. However, studies conducted to understand the determinants of PE behaviours among children often neglect the influence of correct FMS teaching and the importance of establishing prosocial behaviour frameworks. This narrative review aimed to analyse the current challenges and opportunities that primary generalist PE teachers encounter when teaching FMS and integrating prosocial PYD frameworks such as TPSR. The review commences by examining the

differences between a primary generalist teacher and a primary specialist teacher in PE. Then, the social pedagogical PYD model TPSR is explored with skill identification, challenges, advantages, and suggestions for the primary generalist teacher presented. In accordance with meta-ethnographic guidelines, literature was subsequently selected and interpreted. Working exclusively with qualitative data, this type of knowledge was synthesised to generate new insights or conclusions about a topic with the aim to draw insights and analysis from current publications of qualitative research to construct new knowledge that spans across these individual, and often small scale, studies (Sukhera, 2022). Literature was selected based on the topic (primary PE teachers, FMS, TPSR and PYD) with an open-ended date-range selected. The abstract of all literature, including journal articles and book chapters, were initially screened for suitability before the full paper was read and analysed.

2. Generalist and Specialist PE Teaching

According to Lawson's occupational socialization theory (1983), teachers are exposed to the social, psychological, and political subtleties of what it means to be a PE teacher during their years of education and socialization in different PE settings. These encounters shape the practices and actions they will adopt afterward as professionals in school contexts. Lawson notes that occupational socialization consists of three discrete phases:

- a) acculturation, which reflects childhood and adolescence experiences of participation in PE and sports contexts (e.g., through 'apprenticeship of observation' of family, friends, teachers, and coaches)
- b) professional socialization, that happens when pre-service teachers enrol in teacher education programs (e.g., influences from university curricula), and
- c) Organizational socialization, which occurs as part of the job and throughout teachers' working situations and context (e.g., influences from colleagues and the local community).

Experiences amassed during these phases have a long-lasting impact on teachers' views about the scope and content of their teaching (Richards, 2015). More recently, however, the notion of primary school teachers becoming subject specialists has come into focus. Changes to the Australian Institute for Teaching and School Leadership (AITSL) teaching standards now require all pre-service primary teacher preparation programs to provide all primary graduates with a subject specialisation (AITSL, 2017), with a focus on prioritising science, mathematics or a language (Teacher Education Ministerial Advisory Group (TEMAG), 2014). Yet some have noted that variable expertise and interest amongst teachers meant that some areas of the curriculum, such as PE, were most appropriately taught by a teacher with specific skills and experiences, and therefore may warrant specialisation (Ardzejewska et al., 2010). Still the perception of specialisation in a primary school setting has not been clearly and consistently defined in the literature, with the definitions to describe specialisation and their corresponding roles varying notably.

In Australia, the primary teacher is, by and large, deemed a generalist; conversely, an existing paradox exists whereby there are claims that specialists are needed to deliver the PE curriculum. Underlying this is an assumption that primary teachers are generalists who have an ability and

possess appropriate pedagogical content knowledge to provide instruction in all key subject areas. In contrast, there appears to be a parallel discourse increasingly promoting the need for specialist teachers in the primary PE school setting. In England it has been long been argued that the idea of the generalist is outdated and does not reflect practice (Alexander et al., 1992). In other contexts, it has been claimed that the generalist primary teacher might be more appropriately employed as an 'expert' deliverer of prioritised key learning areas such as literacy, numeracy and science. Masters (2009) asserted that preferably, every primary school teacher would be an expert teacher of literacy, numeracy and science, thus explicitly prioritising the development of teacher competencies in some subject areas over others.

A major challenge faced by the primary generalist teacher is acquiring the personal agency and self-efficacy to teach both FMS and TPSR. Agency, self-efficacy and confidence can create a positive learning environment. Children's participation in PE that considers TPSR has been connected to positive developmental outcomes such as increases in self-control, goal setting and leadership skills (Fraser-Thomas et al., 2005). Such outcomes are often equated with social and emotional learning competencies such as self-awareness, self-management, social awareness, relationship skills and responsible decision-making (Jacobs & Wright, 2014) along with self-control, goal setting and leadership skills (Fraser-Thomas et al., 2005).

Yet salient issues exist that influence the value of teaching PE in primary school settings and the way that generalist teachers' domain knowledge and skills may influence both FMS and TPSR implementation. The rise in 'specialist' PE teachers in primary schools can be viewed as a response to longstanding criticism that initial teacher education fails to sufficiently prepare generalist teachers to teach PE (Hyndman, 2017). While this research gap has implications for how teaching FMS and prosocial behaviour in PE could be efficiently applied in higher education settings, this fails to address the present situation for currently practicing primary generalist teachers and the professional development needed to adequately prepare them to teach FMS and TPSR. Consequently, the following section explores the theoretical proposition for the TPSR model and how, when implemented efficiently, can positively predict children's personal and social responsibility. This fact suggests that the strategies related to the TPSR model applied by a teacher, such as offering leadership opportunities and giving choices and voices to children, can contribute to an improvement in social skills and communication of children.

3. Theoretical rationale for the TPSR model

Social demand has led to formal education serving to specify tools for learners to be able to adapt to the constant changes demanded by society. PE is no exception. Establishing an effective prosocial behaviour policy has been recognised as necessary to the smooth running of a school. In this regard, good behaviour by children is a necessary condition for learning (Spielman, 2019) so that children can learn, teachers can teach, and parents/carers can be confident that their child is safe. Hellison (2011) and other scholars (e.g., Jacobs & Wright, 2014) have highlighted the role played by PE in fostering these outcomes and suggested the need to implement TPSR in the early primary years. Others (e.g., Durlak et al., 2011) believe it paramount to foster social and emotional learning through effective evidence-based programs that target these types of outcomes. Models such as TPSR may shed light on how to generate social and emotional learning outcomes through the early primary years in PE.

The TPSR model (Hellison, 2011) is a values-based pedagogical model that uses physical activities as an instrument for helping children become more personally responsible for themselves and more socially and morally responsible for the well-being of others. The TPSR model (Hellison, 1985, 2011) was originally developed to use physical activity to promote valuable transferrable life skills for young people at risk of being socially excluded. TPSR-based programmes focused on providing these opportunities through four themes: integrating responsibility into physical activity, empowering children to take responsibility, building strong instructor–participant relationships, and promoting transfer of responsibility (Hellison, 2011). TPSR-based programmes present children with guidelines for, and practice in, taking responsibility for their personal well-being and contributing to the well-being of others. The goals and means of TPSR are in line with social psychology theories, particularly Self-Determination Theory (Deci & Ryan, 2000) and Self-Efficacy Theory (Bandura, 1997), with theories from sport pedagogy, such as the teaching styles spectrum (Mosston & Ashworth, 2008) alongside aspects of positive psychology. Therefore, TPSR is well placed for translation to primary school PE practice. Hellison (2011) created a lesson format and selected specific teaching strategies to make it easier for teachers to implement the essential parts of the model and to assure opportunities for children to practise and learn personal and social responsibility during each lesson. To accomplish this, TPSR model relies on five levels of responsibility:

- a) respecting the rights and feelings of others
- b) effort and cooperation
- c) self-direction
- d) helping others and leadership
- e) taking it outside (transfer of responsibility)

TABLE 1. TPSR LEVELS AND GOALS

Responsibility levels	Goals	Examples
Level 1: Respect the rights and feelings of others	Respect: The rights and feelings of all children must be protected. are responsibility It demands children to practice self-control, to include everyone in the activities and to solve conflicts peacefully.	Resolve conflicts through dialogue; accept and include all children in the activities; listen to the teacher and classmates when they are speaking; speak without interrupting others; avoid insulting others or calling them names
Level 2: Effort and cooperation	Effort Participate in planned activities even when they are not the child’s favourite.	Continue in all activities even if they are difficult; follow the rules of the class such as wearing the appropriate clothing and adhering to rules and procedures
Level 3: Self-direction	Self-direction Set short and long-term goals; reflect on and	Assume responsibility for tasks; take on leadership roles;

	evaluate your own progress honestly.	participate in activities whether the teacher is watching or not
Level 4: Helping others and leadership	Helping others and caring for others; pay attention to the needs of your classmates, leadership in PE	Setting up and packing away PE equipment without being asked by the teacher (i.e., leadership).
Level 5: transfer of responsibility outside the physical activity setting	Application of what is learned in PE to other contexts	Transfer of positive behaviour to family environment (outside of school)

From Hellison (2011) and Coulson et al. (2012).

TPSR has been successfully implemented in many countries including Spain (Escartí et al., 2010), New Zealand (Gordon, 2010), Canada (Beaudoin et al., 2015), Turkey (Agbuga et al., 2015) and Finland (Romar et al., 2015). Implementation of TPSR programmes has been shown to have positive behavioural, social, emotional, psychological, and educational outcomes (Pozo et al., 2018). Moreover, TPSR can connect to respective curriculum areas given that it is perceived as appropriate for all teachers. Therefore, the applicability of TPSR does not have more suitable content or more specific groups than others, but it can be used for any teacher or course independently of these aspects and is appropriate to improve educational values without detriment of the content.

The themes that characterise TPSR align with primary school children’s developmental needs and the pedagogical guidelines recommended for primary school children’s developmental stage. Notably, the teacher–child relationship is deemed to have a critical role as children should be valued, supported and treated with respect. Hence, the quality of the teacher–child relationship in early primary school is considered critical to facilitating a positive climate and predicting positive developmental outcomes. However, notwithstanding the positive changes TPSR can make, the assumption is that the teacher can work within the TPSR framework while concurrently teach FMS, that is – ensure that an activity or skill remains the core focus of the lesson. Underpinning this is the competence required to pedagogically teach both components.

Social and emotional learning competencies have been considered key at this developmental stage as many scholars (Hellison, 2011; Holt, 2016) have shown that an intentionally designed environment may increase positive developmental outcomes (e.g. academic performance, positive social interactions). Still, a focal challenge with theory and evidence-based programmes is how to apply them in practice. Quality TPSR programs are influenced by teachers’ ability to incorporate a sound TPSR philosophy and coherent practices (Holt, 2016), inclusive of physical activity practices. The opportunities for the integration of TPSR into primary school PE are somewhat endless but require the generalist teacher to have knowledge of developmental motor sequences, PE specific pedagogy and movement concepts if they are to ensure that what they are teaching is best practice.

There are underlying pedagogical principles at the core of TPSR that are aligned with the developmental needs presented by children (Wright & Stork, 2013). Moreover, the pedagogical guidelines included in preschool education emphasise the need to intentionally design PE experiences and implement concrete strategies that help children learn a sense of self, foster positive relationships with others and become active learners (Wright & Stork, 2013). While

TPSR attracts many teachers with its empowerment-based philosophy and prevalent practical implications, given the limited domain and pedagogical content knowledge of primary generalist PE teachers, any attempt to adopt and apply the strategies of the model with insufficient or no formal training is likely to result in limited transferrable benefits to children. Specifically, while there is no single correct way to implement TPSR, a lack of formal training and a lack of consistency and competency in training may introduce considerable variability in the extent to which TPSR is implemented alongside the fidelity of the interventions.

It has been reasoned that generalist teachers, with their knowledge of the individual needs of their students and the security and psychological support that they provide in primary classrooms, are ideal candidates for providing developmentally appropriate, best-practice instruction in PE (Callcott et al., 2012). An extension of the argument is that it is the generalist teacher works daily with the children, has a solid relationship built with them and can construct curriculum experiences which deliver the knowledge and skills of other curriculum areas, in, about and through movement. Nonetheless, in addition to teacher knowledge about what the domain of a primary generalist PE should constitute, logistical issues as well as school-level and national-level physical activity and prosocial behaviour priorities will determine the pedagogical content and skill-based knowledge required by the primary generalist teacher. The suggestion being that these barriers can be overcome through professional learning programs for generalist PE teachers with the recognition that the PE curriculum, inclusive of prosocial behaviour, is vital in a child's development.

Intertwined with these contextual factors is a concern for teaching standards. Arising from similar concerns is that all subjects are being taught equally well and that primary generalist teachers cannot have equivalent expertise across all subjects, inclusive of PE. In addition to contextual or standards-based concepts of the specialist teacher, is the nature of the subject to which a specialist might be allocated and the values implicit in this decision. Yet a significant number of studies in the field fail to examine teaching competency and a generalist's teacher's ability to assess, progress, regress and apply essential anatomical knowledge. This research gap also has implications for how teaching prosocial behaviour in PE could be efficiently applied. Despite this, the primary generalist teacher's knowledge of the practical applications of the key elements of TPSR are required to effectively apply the responsibility-based teaching strategies, responsibility levels, and lesson format.

4. Practical Implications

Physical education and physical activity are inherently practical by nature. At this pivotal juncture, the practical implementation and progress of FMS development and TPSR in the early primary years of PE reflects a field-wide transformation shaped by the efforts of educators and researchers around the globe. PE has evolved with specialised pedagogical frameworks that are distinct to other subject disciplines, offering new avenues for enhancing learning and engagement for primary generalist teachers. This evolution has been supported by a growing body of research, which has broadened applications of PE and the importance of prosocial models such as TPSR which have demonstrated its potential to foster meaningful, progressive and sustainable FMS development. The recent advances underscore the practical and theoretical developments within PE, positioning it as a specialised skill.

Learning in movement involves acquiring the knowledge pertaining to movement skills, concepts and strategies that are essential to support children to move with competence and confidence and build upon the important early foundations of play. While much of the literature references the importance of teaching FMS in children, the requirements to effectively teach FMS at the primary generalist level is often assumed rather than critiqued and assessed. Moreover, the importance of correct and segmented FMS teaching in the early primary years by the teacher requires a basic level of anatomical knowledge. Without this, it could be argued that a primary generalist teacher is teaching movement with little to no contextual knowledge. Yet creating a more coherent and connected form of primary PE is a complex and long-term endeavour.

Previous research has consistently demonstrated that generalists have lower levels of confidence to teach primary physical education (Randall & Griggs, 2021). A closely related concept is perceived self-efficacy, which is an individual's belief about their capability to complete a task. These parameters are often difficult and underpinned by a lack of knowledge about what PE entails. Developing empirically verified training programmes would allow replication of the effective training strategies and practices used in TPSR-based interventions. As Martinek and Hellison (1997) note, focusing on personal strengths and available resources and enhancing interpersonal processes between children and teachers is essential for increasing the prospects of successful implementation of a TPSR programme. While this applies to all aspects of teacher education, the need here is for greater learning for primary generalist teachers in social justice (pedagogies) by enacting the socially-just TPSR approach.

Looking ahead, structured FMS and TPSR professional development holds considerable promise for supporting active, student-centred learning environments in PE and presents an adaptable framework for generalist PE teachers. TPSR training programmes often target PE and sports teachers and focus on their professional development. Future research will be instrumental in providing continued professional development for primary generalist teachers. It should focus on adaptive and context-sensitive approaches that cater to individual children's FMS developmental needs and the cultural and behavioural characteristics of the learning environment. Professional development is considered crucial to meet the needs of contemporary students (Armour et al., 2017). Effective professional development to address this issue should be supportive, job embedded, instructionally focused, collaborative and ongoing. Furthermore, primary generalist teachers need to provide a positive learning environment that focusses on skill progression for all children.

5. Conclusion

Across their educational journey, primary school children should not only develop academically, but they should also develop the physical skills, values and behaviours that will help them develop physically and emotionally. As TPSR continues to evolve and be refined over the next decade and beyond, its potential to support meaningful learning and lifelong physical activity habits in students will depend on ongoing collaboration among researchers, educators, and communities. Ultimately, these advancements will contribute to a more nuanced, context-sensitive, and impactful approach to the designs and implementations in PE. It is incumbent on the PE profession to re-focus its professional development efforts for primary generalist teachers, locally, nationally and globally, to concentrate on the expansion of a strategic and longstanding program intended at merging FMS and prosocial frameworks such

as TPSR. While both generalist and specialist teachers are responsible to help children develop holistically by helping them form and identify their emotional, spiritual, social, physical and intellectual characteristics, and while FMS might provide optimal support to the development of motor skills, TPSR can help develop social skills. Therefore, the issue of what constitutes effective content knowledge along with the organization of the educational process related to the discipline of PE for the primary generalist teacher requires further attention.

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