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PE at Home: keeping the 'E' in PE while home-schooling during a pandemic

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ABSTRACT

Background: The world experienced challenges due to the COVID-19 pandemic which resulted in school closures across the globe in early 2020. Schools pivoted to remote delivery of learning using a variety of online and offline resources. PE is vital in providing motor development opportunities for children and it is essential to ensure that the provision of quality PE experiences is continued, even in the context of a pandemic. It was in this context that the *PE at Home* lessons were developed.

Purpose: This study examined teachers' and parents' experiences of using the *PE at Home* resource and contributes to documenting the PE home-learning experience and can inform how the education system might respond and incorporate remote teaching into the future.

Methods: A mixed-methods study utilising online surveys with 29 teachers and 173 parents/guardians and online interviews with five teachers, five parents and seven resource developers was undertaken. Quantitative data were descriptively analysed while qualitative data were analysed using a thematic approach (Braun, V., and V. Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3 (2): 77–101).

Findings: The *PE at Home* lessons had excellent viewership with over 27,000 Facebook and 937 website views. Three themes (i) ensuring the 'E' remained in PE; (ii) home-schooling and physical education; (ii) and context and relatability were developed from the data. While some parents demonstrated that their knowledge of PE was that it consisted of physical activity, other parents along with teachers and developers reflected on the educative component of the lessons. The *PE at Home* lessons provided teachers with a resource to share with parents to support parents home-school during Covid-19 school closures. An Irish resource featuring Irish children and aligned with the Irish curriculum was seen as a strength by both parents and teachers.

Conclusion: The *PE at Home* lessons address the teaching and learning of PE in multiple contexts, particularly in an online environment, and they can be used in multiple ways to promote learning.

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Primary PE; Covid-19; online teaching; physical activity; home-schooling

Introduction

The world has and is experiencing extraordinary, life-altering challenges due to the COVID-19 pandemic. The pandemic resulted in school closures across the globe in early 2020, aimed at limiting the spread of the virus. Primary schools in Ireland closed their doors in March 2020 and stayed closed for the remainder of the 2019–2020 academic year under government directive, reopening in September 2020. Schools pivoted to remote delivery of learning using a variety of online and offline resources. Availability of resources for online teaching of primary PE was limited, and even fewer available to support parents home-school their children. The current study aimed to examine teachers' and parents' perceptions of a particular home-schooling resource for physical education (PE) '*PE at Home*' during the COVID-19 pandemic, within the Irish context. While this study was undertaken in an Irish context, findings may be applicable across the world as, according to Griggs and Petrie (2018, 329), the 'tenets of tradition with the impacts of globalisation appear to have led to limited variation in [PE teaching] practice across countries ... and many of the challenges for primary school physical education are common'.

Although distance, or online teaching, in recent years has become more popular and generally results in similar academic outcomes as traditional teaching (Bernard et al. 2004; Cavanaugh et al. 2004), many questions remain surrounding online delivery of PE. Notably, the efficacy of online PE in delivering widely agreed PE learning outcomes is not known (Killian, Kinder, and Woods 2019). Despite the lack of comprehensive research evidence of its efficacy, challenges of online PE are easy to conceive. While online learning is possible to organise for subjects that do not require a lot of motion, PE by definition is based on movement. Quennerstedt (2019) outlines worrying trends where in some countries the 'E' is being pushed out of physical education, as well as describing how the 'P' is also being eroded by greater priority being placed on other curricular areas. It is clear that challenges related to both the 'P' and the 'E' of physical education in an online and home-schooling context also exist. Daum and Woods (2015) deemed the development of motor skill proficiency via online PE to be difficult, and believed that online PE should not be targeted at elementary aged children. In addition to the challenges relating to developing children's motor skills, PE teachers have expressed concerns over student accountability, safety, assessment, and overall quality of online PE (Daum and Buschner 2012; Mohnsen 2012).

With school closures and large-scale changes to the delivery of education, online instruction has allowed for learning opportunities beyond the traditional classroom, albeit not without challenges. PE in Ireland is taught by generalist teachers, similar to other countries, alongside 11 other subjects further highlighting the challenges faced by these teachers in providing online support for parents tasked with home-schooling their children. In addition, the very fact that parents/guardians were intermediaries in the teaching process was additionally challenging for teachers, parents and students. PE is recognised within the primary school curriculum as being an 'integral part of the educational process, without which the education of the child is incomplete' (Department of Education and Science 1999, 2). The availability of curriculum-relevant PE resources for teaching PE in a primary school context is vital and may go some way to navigate the possibilities in providing more 'P' and more 'E' in primary physical education.

It was in this context that the *PE at Home* lessons were developed, the primary aim being to provide a resource that was relevant to the curriculum and could be used in the home environment. In the case of the *PE at Home* lessons an individual watches a sequence of visual and auditory learning cues modelled in a video recording by a peer or an instructor and then tries to perform the entire skill in a similar or alternative setting without additional prompting (Bellini and Akullian 2007; Mechling 2005). There is also evidence that demonstrates students' increased motivation to learn (e.g. Choi and Johnson 2005) and improvement in skills as a result of participating in online learning experiences (Berge and Clark 2005). Quality PE provides children with the opportunity to develop their physical literacy (Van Acker et al. 2011; Coulter and Woods 2011), a holistic term that encompasses not only physical competence but the confidence, motivation, and knowledge

and understanding needed to be physically active throughout the lifespan (Keegan et al. 2019). Children who develop their physical literacy are more likely to engage in PA as adolescents (Britton et al. 2020).

The development of fundamental movement skills (FMS) is a key element of the primary school PE curriculum. FMS mastery in young children is associated with lifelong physical activity (PA) (Holfelder and Schott 2014), better health related fitness (Lubans et al. 2010), and improved physical, emotional, and cognitive development (Piek et al. 2008). Considering the importance of PE in providing development opportunities for children, it is essential to ensure that the provision of quality PE experiences is continued, even in the context of the current global pandemic. It was in this context that the *PE at Home* lessons were developed. While the pandemic was the global event that led to this resource, there will continue to be national disasters which may affect children's education (such as earthquakes, bush fires and tsunamis). This resource and the findings from this study may inform parents, teachers and policy makers, how to support children's PE learning remotely in such cases. The aim of this study was to generate practically meaningful knowledge through examining parents' and teachers' experiences and perceptions of engaging with the *PE at Home* resource.

Methodology

In line with pragmatic research philosophy, which considers that researcher biases and preferences can be used to support novel insights, this study was aided by our experience as educators in PE and sport (Giacobbi, Poczwardowski, and Hager 2005) whereby we were driven by practical questions and methods and considered ourselves as co-constructors of knowledge. As such, we considered a mixed methods approach as most appropriate to address the aims of the study. Through a mixed methods approach the research investigated aspects relating to accessibility and suitability, frequency of use, perceived quality, potential future use, and impact of the resources from the perspective of parents and teachers within the Irish context. While the purpose of this study centred on teachers and parents' experiences of using the *PE at Home* resource, the data collected more broadly contributes to documenting the PE home-learning experience throughout a period of school closure, and can inform how education systems worldwide might respond and incorporate remote teaching into the future, and indeed approach the development of online resources to support PE.

PE at Home lesson development

During the initial COVID-19 school closures anecdotal evidence suggested that teachers employed predominantly physical activity (PA) resources that were available online and easily shared. While many of these resources promoted PA, most lacked the educational element essential to PE, did not align with their PE curriculum, and therefore did not allow for continuity of learning during the school closures. The first *PE at Home* lessons were developed by the first and last authors, in response to a local need for PE resources during the closures. It subsequently expanded to service a broader range of strands and age groups with the inclusion of two further lesson developers. A timeline of the development and subsequent research of the *PE at Home* lessons is presented in [Figure 1](#). All members of this initial lesson development team were qualified PE teachers and academics involved in Physical Education Teacher Education at the same university, and had primary school-aged children in their households with whom to develop and record the lessons during lockdown. Initially, lessons were shared via email (Google Drive links) with teachers who were within the developers' contact networks.

As the project expanded and requests for access increased, the authors' institutional Facebook page was used as a platform to make the *PE at Home* lessons more widely available. A partnership with the Professional Development Service for Teachers (PDST), the state body responsible for the continuing professional development of teachers in Ireland and a collaboration with the Irish Heart

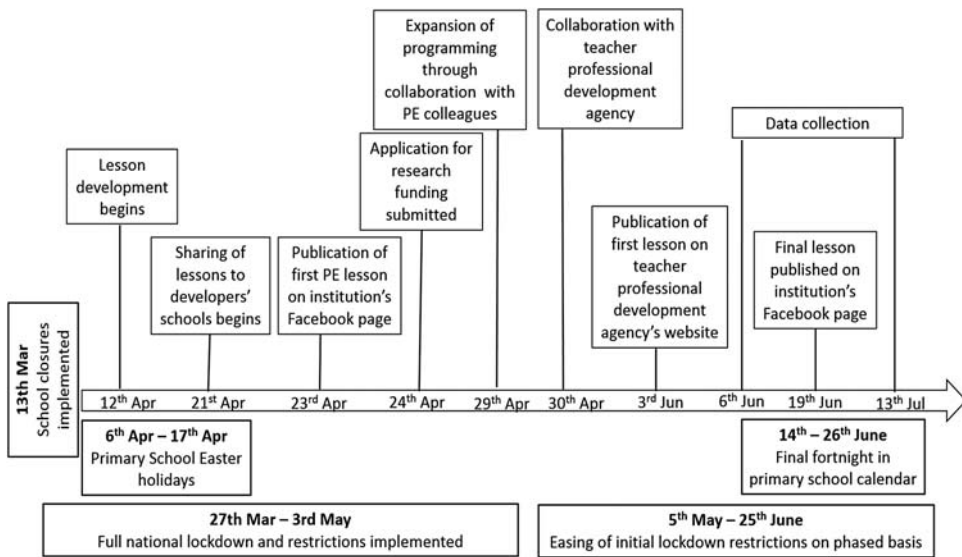


Figure 1. *PE at Home* lesson project timeline.

Foundation also saw the lessons being shared through their networks. Three members of the PDST who are generalist primary school teachers with additional qualifications in primary PE, joined the *PE at Home* lesson development team to expand the lessons to encompass all remaining class groupings and curriculum strands on the Irish PE curriculum. Lessons were developed using an agreed structure and format, formulated by the first and last authors in consultation with the lesson development team. Guiding principles for the lesson structure were outlined as follows:

- Scaffold lessons within the curricular strands and appropriate class groupings to build on existing knowledge
- Include health-related learning
- Use minimal equipment and space
- Short duration of 8–12 min
- Lesson introduction to include lesson topic and learning outcomes
- Lesson summary to include health-related activity message, and offer lesson development and activity extenders to try
- Include child(ren) as learners, where possible
- Include appropriate 'fun' challenges
- Inclusion of open-ended questions and guided discovery technique

This partnership led to the *PE at Home* lesson suite being published on Scoilnet (www.scoilnet.ie), the Department of Education and Skills official education portal.

Study design, participants, and measures

Reflecting the pragmatic philosophy above, qualitative and quantitative methods were utilised. Two surveys were created using Qualtrics (Provo, UT), one for primary school teachers and one for parents/guardians of primary school children. The surveys contained questions on six primary topic areas; (i) barriers to use, (ii) lessons and strands used, (iii) resource quality, (iv) physical literacy outcomes, (v) future use, and (vi) other PE resources used. The surveys were administered online and were shared across multiple platforms including those on which the *PE at Home* lessons

were available (e.g. Facebook, Scoilnet), as well as via email to teachers who had engaged with the lessons. The survey was completed by 29 teachers (TS) and 173 parents/guardians (PS).

Semi-structured interviews were conducted with *PE at Home* lesson developers (Dev), primary school teachers (T), and parents/guardians (Par) of primary school children, to provide a deeper insight into their perceptions of the *PE at Home* lessons. The interview schedule for developers contained 15 questions focusing (i) consideration of Covid-19 restrictions when developing lesson content, (ii) purpose and structure of the lessons, (iii) requirements for developing home-school resources, and (iv) advantages/disadvantages of remote PE delivery. The teacher schedule (10 questions) covered areas such as; (i) available resources for remote PE teaching, (ii) comparison of the provision of PE compared to other school subjects during home-schooling, and (iii) suggestions for changes to the existing content of the resource for future use. The schedule for parents/guardians (13 questions) centred around how the *PE at Home* lessons were used during the Covid-19 school closures; (i) parental knowledge of PE, (ii) comparison between home-schooling for PE compared to other subjects, and (iii) delivery of the PE lessons.

Snowball sampling was used to recruit further participants for interviews (Kirchher and Charles 2018). Initial participants those the research team were aware had engaged with the resource. Subsequently, these participants invited other *PE at Home* lesson users to contact the research team to volunteer as interview participants. All interviews were conducted using Zoom and according to Kite and Phongsavan (2017) the quality of data collected through online communication platforms like Zoom is similar to that which is collected in face-to-face discussions. Seven lesson developers, five parents, and five teachers were interviewed for the study. All interviews lasted between 15 and 20 min, and with the consent of all participants, were digitally recorded for analysis. Interviews were transcribed verbatim and imported into NVivo 12 Pro for analysis. This enabled a purposeful approach to thematic analysis (Braun and Clarke 2006) in order to systematise and increase the traceability and verification of the analysis (Nowell et al. 2017)

Data analysis

Quantitative data were exported into SPSS version 24. Descriptive statistics and response frequencies for all questions were calculated. Qualitative data analysis was initially undertaken through reading and re-reading the transcripts to become familiar with the content. This content was then assigned to codes or labels. The analysis was undertaken deductively, informed by the quantitative findings and the interview questions. The next phase of coding involved reviewing and collating all the data into groups identified by particular codes. Once the focused coding phase was complete, similar codes where patterns existed were combined, resulting in three themes. A sample of the coding process can be seen in Table 1. Finally, the themes were compared against the data set and each one named. The themes related primarily to lesson outcomes and how lessons were received by the users; (1) Ensuring the 'E' remained in PE, (2) home-schooling and PE (3) context and reliability. The involvement of the first two authors in the analysis process, and the triangulation of multiple data sources, resulted in a detailed and thorough process of examining all data that supported trustworthiness.

Results

Our inquiry into the *PE at Home* lessons as experienced by the teachers and parents of children in primary school generated three themes: ensuring the 'E' remained in PE; home-schooling and physical education; and context and reliability. As the purpose is to examine the *PE at Home* lessons which included 31 lessons (across games, gymnastics, athletics, dance and outdoor and adventure activities) from a parent, teacher, and developer perspective it is important to contextualise the level of engagement through quantitative data elicited from social media engagement with the *PE at Home* lessons nationally. Dublin City University Facebook viewing figures show that views for

Table 1. Sample of theme development.

Theme	Codes	Data samples
1. Ensuring the 'E' remains in Physical Education	Learning	<i>you could see that interaction and you could see the questioning and you could see the, what we were picking up, the teaching points, what we were looking for when the child was doing whatever the activity was (Dev5)</i> <i>with those key things in your head, it makes you I think, as a parent more aware of, you know, the little things that you need to kind of hone in on while having fun at the same time (Par3)</i>
	Parental input	<i>what we do know is that, at primary school age parents are the biggest influencer of kids, ... they are the biggest factor that will influence whether kids go on to be active or not ... Parents play a massive role in that (Dev2)</i>
	Questioning and feedback	<i>I can't pose a question live to the kids through the screen, you're posing it to the child that's in front of you and hoping that that comes to life for the other kids that are watching (Dev2)</i>
2. Home-schooling and PE	Lack of available resources for PE	<i>how challenging it was for the teachers to be able to come up with work that was doable for the parents to be able to do with their child but also educational, and it was very clear that PE as a subject was the most challenging (Dev 2)</i>
	Physical education versus physical activity	<i>if the weather was good we would have gone for a walk, or we would have gone out with the football or whatever, out on their bikes (Par2)</i> <i>we are an active family anyway who do kickboxing and cardio workouts 3–5 times with the kids anyway as part of our weekly routine (Survey/Par)</i>
	Differentiation	<i>there would be a huge deficit with gross and fine motor skills there. ... So while you might have first or second class, you could be teaching strands from juniors and seniors (T4)</i> <i>like for my son, he's nine but as I said, like he's not really into GAA or, you know, not that sporty, so some of it was probably a little bit like, he'd get frustrated when he couldn't do it. He might have been; he might have needed a younger class level (Par5)</i> <i>even hearing the Irish accent is nice to know that it'swell you know it's a bit more real (Par3)</i>
3. Context and Relatability	Relatability	<i>a bit of privilege in how we designed the lessons or maybe where we live as well ... maybe that we deliver, or we design some of the lessons to be done in a room like this or a hall or somewhere to reflect the realities where lots of the kids are actually living (Dev4)</i> <i>if you were in an apartment or something they would be a lot trickier (Par2)</i>
	Space, equipment, and privilege	

most of the *PE at Home* lessons were above 1000. Overall there were 27,000 views of the 23 lessons between the beginning of April and the end of June 2020. The Scoilnet website had 937 page views with 636 views of all the lessons. This number is encouraging given that lessons were not uploaded to the website until mid-June and the resources on the Scoilnet website were not advertised at this time.

Ensuring the 'E' remained in PE

A common theme throughout the process of developing, sharing and experiencing the *PE at Home* lesson series was ensuring that the lessons were educative and focused on teaching and learning. While the developers of the *PE at Home* resource were experienced PE teachers they experienced difficulty in ensuring that the lessons were educative, interactive and included questioning. The developers wanted to ensure that, 'learning would occur, that learning would be central to what we were doing – that's it's fun, it's enjoyable, but that learning occurs' (Dev 2). As well as learning skills they wanted the children to learn the importance of physical activity and this was highlighted throughout the lessons, with Developer 3 stating that 'we wanted to include the importance of heart-related, cardio activities that would boost children's cardio health as well, and encourage

them to be physically active for their 60 minutes a day'. One developer stated that 'individual feedback that teachers get to give to individual kids, ... you just can't do it through this mode of learning' (Dev2). They modelled questioning for the parents/guardians so that they could in turn provide learning opportunities for their children when undertaking the lessons but explained that this proved difficult, 'I can't pose a question live to the kids through the screen, you're posing it to the child that's in front of you and hoping that that comes to life for the other kids that are watching' (Dev2).

The developers felt that it was easier for parents, teachers and even the children watching the lessons to engage with the educational aspect of the lessons through the interactivity of the teacher and child in the lesson.

I think for us that's why it was important to have an adult and a child there, was that you could see that interaction and you could see the questioning and you could see the, what we were picking up, the teaching points, what we were looking for when the child was doing whatever the activity was. (Dev5)

Another parent liked that their children were learning skills through PE;

I sort of feel with it that at least at a subconscious level even if I don't stand at the front of the garden and teach him like a taught lesson, I think he would be a bit more aware of, like with athletics explaining the way they were running and moving around, you know stuff like that, even if it just makes him a bit more aware. (Par2)

The learning environment was perceived by the developers as a context where they hoped that practicing on their own with only their parents or another family member might motivate the child to practice and improve with their encouragement. As one developer pointed out, 'you have people that don't really like doing PE in front of other people or being active or doing different games like maybe people have less than inhibitions to do it on their own time in their own houses' (Dev3), while another stated 'you can be ... as bad as you want and nobody's gonna say anything to you, you just get on with it and just enjoy activity for activity sake' (Dev5). Not only can parents provide encouragement and feedback to their child but as parents were engaging with their child's learning in and through movement they were role-models for their children.

what we do know is that, at primary school age parents are the biggest influencer of kids ... they are the biggest factor that will influence whether kids go on to be active or not ... like in terms of the child's potential to go on and keep playing, and to keep being physically active as they age. Parents play a massive role in that. (Dev2)

Two-thirds of teachers (63%) rated the variation and progression in *PE at Home* activities as 'very good'. All teachers who responded stated that the *PE at Home* suite provided enough information to assist in teaching PE to students at their class's level. Meanwhile, parents looked for the key learning points in the lessons so that they could prompt the child, 'with those key things in your head, it makes you I think, as a parent more aware of, you know, the little things that you need to kind of hone in on while having fun at the same time' (Par3). For other parents the lessons demonstrated what PE is and the types of activities and learning that their child engages in, as one parent didn't, 'even know what they do in PE, and he doesn't really tell us you know, tell us much about what he does during the day. I actually have no idea what they do for PE' (Par5). Some of the teachers interviewed supported this lack of parental knowledge stating that 'I think it's just down to them [parents] not knowing themselves either like what to do' (T4). Another teacher outlined how they 'sometimes feel like parents' view PE in school, particularly for junior infants, is just playing games, rather than actually developing the fundamental movement skills' (T1).

Teachers felt that for some parents 'these lessons are probably more relevant for the people in [disadvantaged] areas because it just gives them more ideas. It's educating them as to what's available to them on their doorstep, in their back garden' (T4). They also noted how, during the period of home-schooling, some parents preferred doing PE rather than teaching other subjects.

there were many parents that would love to face into that a lot more than sitting down and doing an Irish ... it was great because it meant that they were spending time with their children, they were doing something that was relevant ... (T4)

As children's sporting activities also stopped during his lockdown period, parents reported that many of the lessons incorporated activities that they may have undertaken at their sports training such as a 'repetition of basic skills, which was useful ... when the different sports teams they're involved with were shut down' (Par4), and therefore these skills were also being taught and progressed through engagement with the *PE at Home* lessons.

Twenty-nine percent (29%) of parents indicated that their child made a 'good' or 'great' improvement in their physical skills after using the *PE at Home* lessons. However, the developers noted that PE should target the physical, cognitive and affective domains of learning and while the physical and cognitive domains were highlighted in the lessons, the affective domain particularly social interaction was lacking, with one developer saying 'where it [PE at Home] does fall down is that the social interaction part which is really big in PE' (Dev5).

Home-schooling and physical education

The developers saw how 'challenging it was for the teachers to be able to come up with work that was doable for the parents ... but also educational, and it was very clear that PE as a subject was the most challenging' (Dev 2). The developers wanted children to 'continue to learn and continue to develop their actual PE skills FMS but also the skills associated with the PE curricula' (Dev 2). As there were very few PE resources available to teachers which could be recommended to parents or prescribed for PE, many teachers (84%) sourced physical activity online resources for their classes. The most frequently provided resource for PE was PE with Joe Wicks (50%), with Go Noodle (43%) and Cosmic Kids Yoga (33%) the next most frequently used resources. While physical activity is vital for children's health the developers were aware that children's learning was being neglected.

the teachers are being quite good at finding things but they're not educational. It's not PE and it's not based on the curriculum like the maths, English, Irish ... It's more physical activity and general activity type things as what they're providing. (Dev5)

Sixty-three per cent (63%) of parents who used a resource prior to the *PE at Home* lessons used an online resource (e.g. YouTube videos), while 29% used teacher-created resources. Due to the good weather experienced during lockdown many parents were getting outside with their children whether it was in their gardens, on greens or being active within the 2 km, and later 5 km, restrictions. Parents stated that 'if the weather was good we would have gone for a walk, or we would have gone out with the football or whatever, out on their bikes, before I would have done Joe Wicks' (Par2) which meant they had to remain indoors. Parents elaborated on other physical activities that their children participate in such as, 'instead of PE we went for a walk or cycle instead' (PS). There were other reasons parents did not engage with the *PE at Home* lessons. Twenty-two per cent of non-user survey respondents identified 'a lack of time and/or resources' as reasons for not using the lessons. Many parents were evidently struggling with the concept of home-schooling with responses given such as 'I am inundated with school/academic assignments and I am a working parent ... I am only just managing as is' (PS), while for others PE was not a priority when home-schooling, '[with] so many lessons to complete PE was not top of the list (PS). Parents engaged with the lessons on a number of levels. Some parents carried out the activities with their child rather than acting like the teacher, 'I'd kind of be the competition or I'd be the person doing it with him ... so not really the leader more the participant' (Par1) and others used aspects of the lesson having watched the lessons themselves,

I would just watch them and then I just try to more incorporate bits, rather than me being the PE teacher outside because they just don't react to that, I just kind of like, if the balls were out, trying to do a few of the things we've seen. (Par2)

Both the developers and teachers had considered ways in which the resource could be enhanced to provide more opportunities to engage in physical activity at home. Eighty per cent (80%) of parent/guardian respondents said that the *PE at Home* lessons encouraged their child to be more active and 69% of respondents said they participated in follow-on or additional activities.

Some teachers and parents found that the prescribed lessons may have been too difficult for the children in an age group. This was particularly relevant for a teacher from a disadvantaged school who felt 'there would be a huge deficit with gross and fine motor skills there. ... So while you might have first or second class [Year 3 and 4], you could be teaching strands from juniors and seniors [year 1 and 2]' (T4). Parents also saw the need for differentiated lessons or access to younger classes lessons;

like for my son, he's nine but as I said, like he's not really into GAA or, you know, not that sporty, so some of it was probably a little bit like, he'd get frustrated when he couldn't do it ... he might have needed a younger class level. (Par5)

Although all lessons were available at the end of the school year online, initially the teachers did not have access to all lessons in order to share lessons for older or younger classes with parents.

Context and relatability

While creating the lessons during lockdown the developers were conscious that children might not have the gardens or space required in which to carry out the lessons.

I have a nice big garden with loads of room etc. And maybe that we deliver, or we design some of the lessons to be done in a room ... or a hall or somewhere to reflect the realities where lots of the kids are actually living. (Dev4)

This was also referred to by parents, with one parent reporting that 'if you were in an apartment or something they would be a lot trickier' (Par2). Access to the internet or devices with screens large enough to view the activities by parents was also a concern, 'you had the whole thing of the inequity of it like that someone might not have access to whatever a computer or internet ... or they might have a limit on their data' (Dev6). Although the context may have been back gardens for many of the lessons the developers tried to use small spaces and made use of many household items for the lessons. As the developers planned and recorded the lessons while confined to their own homes, they had to be creative and use resources that were available around the home. This made the lessons more accessible to parents and children, 'that's what I find very easy ... you're able to just take everyday items and incorporate and integrate in a game that was fun ...' (Par3).

Parents commented on the fact that they were able to relate to the *PE at Home* lessons for many reasons. Being Irish resonated with many, 'even hearing the Irish accent is nice to know that it's ... well you know it's a bit more real' (Par3). This was someone their child could relate to and understand rather than an adult telling them what to do all the time.

What was better was, this was, in both sets of videos I saw, these were people who were the same age as my own son. And that made a huge amount of difference, because there was that identification with and connection to, it wasn't somebody with a strange accent from a different country who's the same age as their parents, it was somebody their own age who was doing something ... And that was really important. (Par4)

Teachers too said 'it was lovely to actually see the activity be performed by kids, and see them doing it. And they will watch kids and they learn from kids, I think better sometimes' (T2). The lessons were more meaningful for parents, teachers and children when children were included, either to demonstrate or explain the activities in the lesson.

All teachers who used the *PE at Home* lessons said that they would use the *PE at Home* lessons in the future. Sixty-three per cent (63%) of teachers stated that they would use the lessons if PE cannot be taught in schools due to Covid-19-related restrictions. Outside of Covid-19-related restrictions, 58% of respondents said they would use the *PE at Home* lessons for PE homework. In addition, two

respondents stated that they would use the *PE at Home* lessons in the future to source ideas and prepare for their own teaching of PE, one of whom indicated the usefulness of the *PE at Home* suite as a preparatory tool as she found ‘the language/content to be useful to inform me as the class teacher before I teach a lesson’ (T5).

The most common addition proposed by teachers for the resource was the inclusion of a task card or ‘page’ to supplement the lesson; ‘I think would have been really useful to have a one pager with each of the lessons that goes, “here is activity one” to almost have like task cards (T2).’ Another teacher highlighted how this would be helpful to specific types of schools, ‘I do think they could probably reach out to DEIS [disadvantaged schools] in different, maybe in a PDF format’ (T4). The task card could also be used by teachers in schools. For parents/guardians, who said they would use the lessons in the future 53% said they would use them if their child/children cannot do PE in school due to Covid-19 restrictions, 41% said they would use them if their child was given the *PE at Home* lessons as homework, while 42% said they would use the *PE at Home* lessons as an activity independent of the school.

Discussion

The findings presented provide insights into the experiences of the developers, teachers and parents with the *PE at Home* lessons in the context of home-schooling during the initial Covid-19 pandemic school closures. The findings contribute to the knowledge of this particular phenomenon by making more explicit some of the conditions and experiences as promoting or inhibiting successful teaching and learning of PE while home-schooling. The first theme related to the purpose of the resource. Inhibitors suggest that parents and teachers placed a significant emphasis on the activity rather than the educational aspect of PE. This isn’t a novel finding – in fact, there is a growing, but we would suggest misguided, move towards physical activity as the dominant engagement for children. We would suggest misguided as there appears to be an over emphasis on solely being physically active rather than the learning and development of the child in terms of their ability and confidence to perform skills. This is not just reflected by parents but by teachers too as there can be an over-emphasis on physical activity initiatives within the school context at the expense of PE. It is very common for schools to take part in these initiatives such as running a mile a day, active breaks for example and perhaps not in structured PE lessons.

These initiatives usually have the sole aim of increasing physical activity and overlook the holistic development of the child which occurs in PE alongside the development of physical literacy. Research (e.g. Giblin et al. 2014) highlights how structured instruction and feedback are required to ensure physical literacy is developed appropriately during childhood in order for children to become healthy and active adults. Perhaps the increased focus on physical activity and only being able to exercise within the government’s prescribed limitations contributed to this focus during the pandemic. It is important when creating resources for online/remote PE and also for in-school PE that there are clear learning intentions for the activities chosen. These learning intentions should target the physical, affective and cognitive development of the child where possible. The resources should also include elements of assessment such as questioning, clear instruction which is aligned with the learning intentions and aspects to focus on when providing feedback to the child. Including these elements in the resource will assist the teacher in targeting the learning involved in the activity rather than just focusing on being active.

Previous research on PE-related parental involvement has revealed several challenges, including underdeveloped partnerships between home and school (Svendby and Dowling 2013). On the other hand, successful collaboration has been characterised as open, ongoing, frequent and reciprocal communication between home and school (Chaapel et al. 2013). Through lockdown, online communication between schools and teachers, and parents become the mode through which children were taught and learned. For PE specifically however, the inclusion of parents/guardians in the teaching process may also have provided an unforeseen benefit. Parents of school-aged children

and their attitudes and perspectives can be a key determinant in facilitating children's adoption of PE and physical activity (Coulter, McGrane, and Woods 2020). Children are more likely to engage in physical activity if they adopt positive attitudes towards PE and parents play a large role in their development. That being said, while many studies indicated that parents are important socialising agents in the field of sports (Birchwood, Roberts, and Pollock 2008), Sheehy (2006, 244) found 'that parents knew remarkably little about their child's PE program, and what they did know was often inaccurate'. *PE at Home* provided an opportunity for PE to be showcased for parents.

The context and relatability of the *PE at Home* lessons highlighted some of the benefits of online instruction such as increased access to content for children, ease of instructional delivery for teachers, and the standardisation of content across different classes (Wentling et al. 2000). In an online environment, children are able to work at their own pace, to accelerate through content that is easy for them, and to go slower as needed when the content is more difficult (Ransdell et al. 2008). The child was supported by a parent in many cases and therefore received continuous feedback, how we might support the child to engage, if not independently, then perhaps with less scaffolding might be considered should further lockdowns continue. Murphy and Ní Chróinín (2011, 141) maintain that 'a broad experience in a supportive environment gives children the best chance of being successful movers and a good chance of finding activities they enjoy and want to repeat'. The *PE at Home* lessons provided teachers and principals with an opportunity to share this knowledge with parents across the PE curriculum. The lessons also capitalised on the attraction of watching recordings on YouTube or Facebook that most children possess (Charlop-Christy, Le, and Freeman 2000).

Conclusion

We have offered new insights into the varied experiences regarding a PE-related home-school collaboration between teachers and parents of primary school children during a period of national lockdown utilising the *PE at Home* lessons. We fostered new beginnings and brought something uniquely new to the educational situation in the context of a pandemic where PE holds the potential to be a space that promotes and celebrates 'different ways of being in the world as some-body' (Quennerstedt 2019, 615–616). We conclude this paper suggesting that online video resources based on learning aligned with a country's PE curriculum and encouraging regular physical activity could be a useful, and pragmatic, way forward. We have seen in this study that learning had become more child-led with practical activities centred around their interests, their home and community, and conducted at the child's own pace.

Considerations for the future include: how the focus of parents and teachers can be shifted from the 'P' to the 'E' in schools and at home; and how parents can support their child's teacher and their child's learning in PE. For resource developers, it is important for future practice that the learning element of PE is highlighted clearly in resources such as *PE at Home* lessons to assist teachers/parents in ensuring that this learning occurs and children are not solely being physically active. The 'take home message' is that *PE at Home* addresses the teaching and learning of PE in multiple contexts (e.g. home and school), and can be used in multiple ways (e.g. improve learner–learner interaction or personalised learning) not only in Ireland but internationally. To date, the impact on children's educational development due to the disruption caused by Covid-19-related school closures is unknown though the general consensus is that greater instructional time results in better learning outcomes (Rivkin and Schiman 2015).

This research adds to the current body of literature exploring the impact of the COVID-19 school closures internationally (Devitt et al. 2020). At the time of writing this paper, schools in Ireland were reopening for the first time in nearly six months. According to Cassidy and MacPhail (2020, n.p.), 'the realities of social distancing mean there is an inclination to move towards individualized learning activities in safe spaces'. The move to individualised activities affords teachers a greater opportunity to achieve consistent levels of individualised feedback, create more tasks that are appropriately enjoyable and challenging, and carry out an Immediate assessment of, and for,

learning. The *PE at Home* lessons provide teachers with a resource to assist them with this undertaking.

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