Abstract: This study focuses on Physical Education (PE) teachers’ use of social media to teach physical activity for health during the covid-19 pandemic. Drawing on appreciative inquiry and utilising a grounded theory methodology, analysis of two interviews and a digital task allow us to present three main themes: (1) Social Media as a Teaching Tool, (2) A Lasting Digital Legacy?, and (3) Inequity of Remote Learning. These themes highlight the rush to utilise social media when the physical spaces of PE were removed, the recognition that teaching could be different in the future, and challenges inherent to digital spaces. In concluding we: (1) advocate for effective initial teacher education and ongoing professional development in the positive use of digital technologies, (2) suggest that future online activities incorporate learning, and (3) urge governments to do more in terms of levelling out technological inequalities.

Keywords: Physical Education. Health. Digital inclusion. Digital Technology.
1 INTRODUCTION

Covid-19 has caused significant disruption worldwide. This disruption has presented education with unprecedented challenges, including, but not limited to: schools closing for prolonged periods, staff and students being required to adjust to social distancing, online teaching and learning, and quarantine and sanitation protocols. Given these challenges, school classrooms, playing fields, and gyms as teaching and learning spaces have been replaced with remote or home learning through computers and mobile devices. Indeed, during the pandemic, digital technologies have, in many cases, become the default method of teaching and learning (SCULLY; LEHANE; SCULLY, 2021). As a result, and in an effort to better understand the challenges inherent in PE specifically, a growing body of research has emerged in this area (see, for example, Cruickshank; Pill; Mainsbridge, (2021), Howley (2021), Jeong e So (2020) e Varea, Gonzalez-Calvo e Garcia-Monge (2022). This work suggests that PE teachers have readily used digital technologies, including social media, to sustain students’ participation and learning in the subject during different stages of the pandemic. Social media1 have been defined as online platforms that allow users to interact with other online users through the displaying and sharing of information on newsfeeds, timelines and profiles (KRUTKA; CARPENTER, 2016). The use of these platforms in overcoming some of the disruption caused by covid-19 is perhaps to be expected, considering that social media have been described as an almost unavoidable part of everyday life. However, despite the ubiquity of these sites, most studies have focussed on online learning broadly, with relatively little attention paid to social media per se. As such, the nature and impact of these platforms with respect to PE remains relatively unknown. More specifically, this study focusses on the use of social media to teach PAH which encompasses PE’s health-related goals of developing the knowledge, understanding, physical competency, behavioural skills, as well as the attitudes and confidence associated with participation in physical activity.

Whilst the promotion of healthy, active lifestyles has become an established component of PE curricula across the world (see, for example, AUSTRALIAN CURRICULUM, ASSESSMENT AND REPORTING AUTHORITY (2012), NEW ZEALAND MINISTRY OF EDUCATION (2020), concerns have been raised about young people’s health, physical activity and fitness levels prior to the pandemic (CALE; HARRIS; CHEN, 2014; KIRK et al., 2018). Further, it seems reasonable to argue that these concerns have in many ways been exacerbated by covid-19. Indeed, research from Nagata, Magid and Gabriel (2020), Xiang, Zhang and Kuwahara (2020) and Dunton, Do and Wang (2020) have respectively reported significant increases in sedentary behaviour and screen time, coupled with a decrease in physical activity and sports participation amongst adolescents during the pandemic. Several studies (e.g., Bates et al. (2020), Avila et al. (2020), Jiao et al. (2020), Singh et al. (2020) have further suggested that declining physical activity levels may have long-term implications for the physical as well as the mental, emotional and behavioural health of young people. Recognising this, alongside the pervasiveness and power of social media, particularly in the lives of young people (GOODYEAR; ARMOUR; WOOD, 2022).

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1 Social media – research from Statista (2022) suggests that the most prevalent social media platforms are currently Facebook, YouTube, WhatsApp, Instagram and WeChat.
Physical activity for health, COVID-19 and social media: what, where and why?

2019), we need to better understand the ways in which PE teachers used social media during the pandemic to promote PAH amongst their students. Equally, we need to know what young people were asked to do and learn during this period and how this was perceived by students.

Alongside concerns over young people’s health, physical activity and fitness pre-pandemic, there have been long standing concerns over PE teachers’ knowledge, understanding and preparedness to effectively meet health-related goals (ALFREY; CALE; WEBB, 2012; ARMOUR; HARRIS, 2013; HARRIS; LEGGETT, 2015; CALE; HARRIS; DUNCOMBE, 2016). In particular, reductive forms of PAH focusing primarily on fitness and fitness-related physical activities and often involving minimal learning, have been reported to dominate many teachers’ face-to-face health-related practices (CALE; HARRIS, 2009; HARRIS; LEGGETT, 2015). Given the above, there is a danger that the same reductive approach which effectively equates PE with physical activity is reinforced or even exacerbated through digital technologies such as social media. This is problematic in that narrow expressions of PAH are considered inadequate for developing the skills, attitudes, values, knowledge and understanding required for young people to lead healthy, active lifestyles (CALE; HARRIS, 2009).

Furthermore, there is a risk that PE might miss an opportunity to capitalise on this rapid and enforced shift online. For example, historically PE teachers are reputed to be traditional and resistant to change (KIRK, 2010; 2012; TINNING, 2012) with competitive sport, sport techniques and teacher directed approaches dominating their practices (KIRK, 2010; THORBURN; GRAY, 2010; ALFREY; CALE; WEBB, 2012). In light of the circumstances arising from the pandemic however, and whether by choice or need, many teachers experienced technology in relatively new ways in both their personal and professional lives. It would therefore be remiss not to examine in what ways PE teachers used social media to teach PAH during a period when digital technologies were the default method of teaching and learning. This is especially so given these platforms are now one of the most common ways to exchange information (GOODYEAR; ARMOUR; WOOD, 2019) and that a relatively long-standing ambition has been for PE to embrace technology in pedagogically sound ways (CASEY; GOODYEAR; ARMOUR, 2017).

In recognition of the above, this study utilised appreciative inquiry to explore what opportunities social media presented to PE teachers and what PE teachers chose to teach with respect to PAH via these platforms. Appreciative inquiry, we feel, is a particularly fruitful lens, as much of the existing literature on social media and health pedagogies has lacked balance in its appraisal of these technologies, focusing primarily on the risks associated with these sites, and thereby restricting the development of pedagogies (MORRIS; STOMMEL, 2018; SANDFORD, 2019; HYNDMAN; HARVEY, 2019).

2 METHODS

In addition to using an appreciative inquiry lens in data gathering and in the presentation of the findings, this study used a constructivist grounded theory approach
to data gathering and analysis. Appreciative inquiry is established amongst a family of action research approaches and provides a means through which to explore the ‘energising’ and enabling aspects of employing social media in the teaching of PAH. Appreciative inquiry is particularly important in this study because risk narratives often dominate societal discourse regarding social media and their impact on health (SANFORD, 2019). The use of grounded theory provided the research with an adaptable, flexible and comparative method to generate substantive theory, enabling this research to explore critical issues identified by the PE teachers during the pandemic. Similar examples of this marriage between appreciative inquiry and grounded theory can be found in the work of Pill (2016), Hill, Sandford e Enright (2016), and Sargent and Casey (2021).

2.1 PARTICIPANTS

Twenty-six secondary school PE teachers (12 females, 14 males) who described themselves as either active (N = 7), frequent (N = 15), or occasional (N = 4) users of social media agreed to participate in this study. These teachers were recruited via research accounts on social media platforms such as Instagram, LinkedIn, and Twitter. All participants had at least one social media account. The teachers included Heads of Department (N = 8), specialist PE Teachers (N = 14) and Recently Qualified Teachers (N = 4). Between them, they had 1 to 19 years of teaching experience. The majority of the participants were teaching in secondary schools in England (N = 24), while one was teaching in Scotland and another at a British school in Thailand. Most taught in Academies2 (N = 18), with the rest in State (N = 5) or Independent (N = 3) schools.

2.2 DATA GATHERING

Ethical consent was obtained from the authors’ university prior to embarking on the study, after which three phases of data gathering took place: (1) semi-structured interview, (2) a screenshot task, and (3) a photo-elicitation interview. In the first phase, the semi-structured interview explored PE teachers’ use of social media to inform their teaching of PAH. Specific questions included, “What impact, if any, has covid-19 had on your social media use generally and, more specifically, in relation to health-related PE?” The participants were then asked to elaborate, clarify, and provide examples based on their initial responses. Each interview was conducted on Microsoft Teams and took place between June 2020 and January 2021. The interviews lasted between 24 and 48 minutes and were recorded before being transcribed and uploaded to NVivo.

In the second phase, participants were asked to take screenshots of any PAH material they had engaged with on social media to support their teaching of PE. They were then asked to provide comments about each screenshot and explain why they had chosen to use it. Participants were provided with prompts such as “why did this information appeal?” Following this, all images and accompanying

2 Academies – independent institutions, run by private companies with charitable status, and funded directly by central government via a legally binding contract (WEST; BAILEY, 2013).
comments were uploaded to a Padlet\(^3\) account managed by the first author. Fourteen teachers completed this task between June 2020 and January 2021, uploading a total of 51 screenshots. These screenshots and any accompanying comments were then uploaded and analysed through NVivo. The screenshots gave the researchers access to extracts from each teacher’s personalised social media network which helped to generate a series of living examples regarding PE teachers’ use of social media to inform their teaching of PAH. The screenshot functionality allowed authentic experiences of online teaching and learning to be gathered, analysed and explored.

The fourteen teachers who uploaded screenshots then took part in a photo-elicitation interview using the images they had uploaded during the second phase of data collection. The interviews were conducted on Microsoft Teams over the same time period. Grounded theory was applied to the analysis of each teacher’s initial interview and their social media screenshots which allowed the researchers to develop specific questions for each teacher based on their prior responses. In this way, the interview schedule for this phase contained a number of both core and tailored questions. This enabled the researchers to grow, clarify, and test concepts identified during earlier rounds of data gathering. The interviews lasted between 26 and 58 minutes, and the participants’ responses were again recorded, transcribed, uploaded, and then analysed via NVivo.

2.3 DATA ANALYSIS

Coding in grounded theory is fundamental to the process of data analysis and is explained simply as the interpretation of data through tags, names, and labels (PUNCH, 2011). In the constructivist version of grounded theory, which we employed, the process is often split into two distinct phases: initial and focused coding (CHARMAZ, 2000; 2006; 2014; 2015). During initial coding, data were interrogated line-by-line, using gerunds and memos as coding tools. A gerund is a verb that functions as a noun, turning statements (e.g., demonstrate) into actions (i.e., demonstrating) by “-ing” words, whilst a memo is an analytical note, written in an informal, unofficial language, helping create a space for critical reflection (CHARMAZ, 2006; 2014).

Once initial coding was completed, focused coding began. In this step, codes became more directed and selective, with the researchers now thinking at a conceptual level. The codes evolved as new data were gathered, resulting in the most useful codes crystallising into more complex and independent structures (HOLT; KNIGHT; TAMBMINEN, 2012). As such, diverse codes were grouped and integrated into unified wholes, co-existing and supplementing other emerging concepts (CHARMAZ, 2006).

This study utilised a third phase of data analysis termed theoretical integration. In this phase, the relationships between specific concepts were identified by interrogating the data set as a whole (CHARMAZ, 2006). This allowed the researchers to compare the memos, codes and categories co-produced during earlier rounds of analysis before integrating them into some form of theoretical logic (CHARMAZ; THORNBERG; KEANE, 2018). From this process, there remained three main co-

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\(^3\) Padlet – a cloud-based platform that allows users to upload, organise and share text, images and other media to virtual bulletin boards.
3 RESULTS AND DISCUSSION

3.1 SOCIAL MEDIA AS A TEACHING TOOL

With the significant disruption to PE brought about by the pandemic (i.e., isolation, social distancing and school closures), the use of digital technologies in teaching and learning became an overnight necessity. In this study, many teachers reported that their screen time, including time spent on social media, had dramatically increased since the start of the pandemic (March 2020 in the UK). This increase is consistent with findings from Office of Communications (LOCKDOWN LEADS..., 2020), Xiang, Zhang e Kuwahara (2020), and Kovacs et al. (2021) which indicate that lockdown led to a surge in technology use, including social media platforms.

Whilst a general increase in technology use was to be expected, especially in regard to streaming services and keeping in touch with family and friends, many of the PE teachers reported using social media platforms to pass time and relieve boredom as well as to assist in teaching PAH. For example, Tom’s comment below is illustrative of a number of the teachers who suggested that ‘social media had become an actual teaching tool’, which they used to help sustain pupils’ engagement in PE: “We’re using it to keep our students engaged in the subject. I think it’s been quite effective in keeping that school habit up. It’s let the students know that we’re still on the radar, you know, that we’re still around.”

These findings are consistent with other studies in Australia, Brazil, China, Ireland, South Korea, Mexico, and New Zealand (see for example, Jeong and So (2020), Cruickshank, Pill and Mainsbridge (2021), Howley (2021) which reported that PE teachers have used social media to encourage students to ‘do something’ during the pandemic. To keep students engaged, the present study found that many teachers had produced homemade fitness challenges and competitions as well as shared activities created by fitness celebrities (e.g., Joe Wicks⁴) with students via social media, encouraging their classes to take part in the activities at home. However, as Edward’s and Emma’s screenshots below indicate (see Figures 1 and 2), many of these activities were limited in scope, focusing almost exclusively on short bursts of physical activity.

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⁴ Joe Wicks – a qualified personal trainer who created #PEwithJOE. These daily workouts took place on his YouTube channel, beginning in March 2020 in response to the covid-19 pandemic and the first UK lockdown. #PEwithJOE lasted one year and had over 100 million views.
Figure 1 - Screenshot of 'homemade' fitness challenge promoted via social media

Source: Submitted by Edward from Instagram.

Figure 2 - Screenshot of a fitness challenge created by Joe Wicks, promoted by teachers via social media

Source: Submitted by Emma from YouTube.
Although these tasks may have been enjoyed by and increased some pupils’ activity levels, they are narrow and reductive and consequently, are unlikely to have developed pupils’ broader physical skills and competences (STIRRUP et al., 2020). Of course, these tasks might not have constituted the full PE offer the teachers were providing at this time but if used on their own, represent what we see as an impoverished PE experience. For example, they represent stand-alone, repetitive activities which lack any explicit learning or differentiation, take a limited amount of time to complete and are ultimately unsustainable (as Joe Wick’s found when he stopped PE with Joe after 115 sessions). As a result, and quality aside, we can deduce that PE time was certainly being lost. Equally many students may not have engaged in these types of activities during what PE time there was, perhaps finding them unappealing, unsuitable and inaccessible.

Whilst activities of this nature might have been seen as a possible alternative due to the rapid shift that had to be made from face-to-face teaching in purpose-built facilities to online teaching in restricted spaces such as bedrooms and dining rooms, they are clearly not a sustainable PE offer. That said, and as alluded to earlier, such activities are perhaps reflective of a broader issue and concern that has been raised with respect to the teaching of PE prior to the pandemic whereby, in efforts to promote health, there is a preoccupation with physical activity rather than PE. Indeed, it has been suggested that the ‘E’ is missing in PE (BROWN, 2013). On this issue, Quennerstedt (2019) argued that PE is under attack, with the subject at risk of becoming fitness instruction and physical activity facilitation without education. Similarly, Cale and Harris (2005) raised early concerns that much health-based work typically amounted to repetitive, uninspiring drill-type activities involving minimal learning. Such activities seemed to be representative of many of the online experiences provided to students by PE teachers during lockdown. Hence, it seems the pandemic has, in many ways, exacerbated this long-standing issue.

Notwithstanding these concerns, these online activities might nonetheless have contributed towards physical, cognitive, social and affective learning in PE. For example, teachers in this study suggested that some physical and cognitive learning did occur through such activities. Katie, for instance, explained that she had used online activities to promote students’ knowledge and understanding of a balanced diet. However, as Natalie’s comments suggest, where efforts were made to develop knowledge and understanding, the effect on students was inconclusive:

> They [pupils] absolutely love it [online fitness activity], but I don’t think I can say they’re fitter now or they know more about health. Obviously, we tried to link in things like muscles and the long-term benefits of exercise, but it was more about just giving them an opportunity to do something.

Noteworthy, was that examples of learning in the affective domain were absent from the teachers’ interviews and screenshots. To the contrary, we might have expected to see more in this regard bearing in mind that this domain refers to individuals’ psychological and emotional wellbeing (KIRK et al., 2018). This is concerning given the reported decrease in young people’s mental and emotional wellbeing during this period (AVILA et al., 2020; BATES et al., 2020; JIAO et al., 2020; SINGH et al., 2020), alongside the importance of this domain in potentially influencing
young people to engage in lifelong physical activity (BAILEY et al., 2009; KIRK et al., 2018). Furthermore, the majority of the activities were individually focussed, thereby limiting coverage and development of the social domain. Yet, when opportunities for social interaction were significantly reduced during lockdown to the detriment of young people’s social and emotional health (ORGILÉS et al., 2020), continuing to address this domain in and through PE in some capacity during lockdown would seem to be particularly important.

Thus, with a few exceptions, it seems that the potential for PE to contribute to all domains of learning as well as develop important wider skills and attributes such as positive self-regard, confidence, coping and conflict resolution skills, mastery motivation, autonomy and moral character was lost in these online activities. For these reasons, more needs to be done to ensure that digitally-based activities contribute towards learning across a range of domains.

It is important to note however, that some of the PE teachers themselves recognised limitations in the activities they incorporated into their teaching of PAH, reporting implementing them with varying levels of success and noting how the activities soon lost their ‘novelty appeal’. Koch et al. (2018) suggest that such a decrease in interest is common for novel technologies once they become established. Unsurprisingly then, the teachers described a significant drop off in pupil engagement as the newness of the activities wore off. Indeed, Rishi was not alone when he suggested that such activities had a discernible shelf life:

Yeah, we’re still doing these, but it definitely peaked over lockdown…There was a lot of interest to begin with, we had lots of pupils sending screenshots in, but it’s died down now. The most recent challenges we’ve done, we’ve not had much interest in those. I guess they’ve got a little bit bored of them now.

This is unsurprising when we consider the repetitive, undifferentiated nature of and limited learning involved in many of the activities and that they possibly lacked challenge, appropriateness and relevance for all young people. For example, in failing to consider the age, abilities or backgrounds of his participants, Joe Wicks (see Figure 2) arguably did not provide an inclusive, safe, meaningful and enjoyable experience for many young people (STIRRUP et al., 2020). This ‘one-size fits all’ approach to PE inevitably meant that many pupils were likely to have been excluded. Moreover, PE teachers in the present study relied heavily on prescriptive high-intensity interval training (HIIT) activities which were potentially unsafe, inappropriate, unsustainable or unappealing for many of their students. Furthermore, the lack of progression and learning evident in some of the screenshots suggests that they were designed primarily to occupy students. Despite the seeming retrograde step in many teachers’ efforts to provide appropriate activities when teaching PAH, using social media in this way is somewhat understandable considering the additional demands and responsibilities that were thrust upon teachers with little to no notice during this period. In this respect, teachers were perhaps looking for a quick stop gap rather than carefully planned, meaningful learning.

In recognition of the above and the limitations of these activities, and becoming more cognisant of the circumstances arising from the pandemic over time, some
teachers began to adapt their teaching to better meet their students’ needs and sustain their motivation. Interestingly, soon into the pandemic, students’ mental health and well-being became an area of increasing concern (AVILA et al., 2020; BATES et al., 2020; JIAO et al., 2020; SINGH et al., 2020). In response, some schools and PE teachers placed greater emphasis on well-being as part of a whole-school approach to promoting mental health. For example, Callum’s department moved away from competitive, drill-type fitness activities, focusing instead on activities such as yoga and stretching. This change of focus led to the selection of alternative lifetime activities to maintain and promote health:

We’re still using the school Instagram account for that sort of thing. The focus has changed a little bit though. Our SLT [Senior Leadership Team] is really pushing mental health at the moment, so we’ve tried to buy into that. Instead of challenges, we’ve been sharing 20 minutes of yoga or stretching activities.

Thus, despite the disruption to PE during the pandemic, there may be some positive outcomes from the forced move to online learning. Indeed, the speed of this move encouraged, or perhaps drove, some teachers to introduce new and different activities into their PE curricula. For example, as Callum’s quotation above illustrates, teachers appeared more willing to incorporate and promote new fitness-for-life activities. Although we cannot say if this will result in deep philosophic and pedagogic change, it is positive to see that adversity led to some teachers thinking differently about PAH, moving away from the typically dominant fitness-for-performance focus and more toward fitness-for-life activities.

The willingness of some teachers to incorporate and promote new fitness-for-life activities is, in our view, welcomed and would seem particularly important in light of the reduced activity levels and increased mental health issues amongst young people during the pandemic. Whilst this development in response to students’ needs is positive, the longevity of such adaptations with respect to PAH remains to be seen, particularly as PE teachers across the globe return to in person teaching. However, we recommend that the fitness-for-life activities which proved popular with students during this period be retained within PE curricula, and that PE should draw on lessons learned from recent experiences about what engages young people.

3.2 A LASTING DIGITAL LEGACY?

In their final interview, teachers were asked to envisage the future of PE, and predict whether social media would have more or less of an influence on their PAH practices moving forwards. In response, many were optimistic about the potential of digital technologies such as social media to promote and enhance learning in PAH. Teachers such as Ben, for example, suggested that the pandemic may leave a lasting digital legacy, given the subject’s dependency on these types of technologies throughout this period:

I do think with schools being closed, it’s brought the subject into the 21st century. Teachers who might have been a bit resistant before, they’ve had

5 Fitness-for-performance - focuses on fitness-related activities that are concerned with improving sports performance (HARRIS; LEGGETT, 2015).
6 Fitness-for-life – focuses on lifetime activities that maintain/enhance health (HARRIS; LEGETT, 2015).
no choice but to get used to technology. In terms of active, healthy lifestyles, I suppose it just makes sense to use Instagram and places like that going forward, because kids are on their phones all the time.

Given the PE profession’s reputed resistance to change highlighted earlier (KIRK, 2010; 2012; TINNING, 2012), the pandemic may have been the push needed to move the subject forwards. What is more, many teachers in this study suggested that using digital technologies, including social media, in their teaching, to attract, engage and expand the reach of PE was a logical next step. This is especially pertinent now that so many young people are dependent on these platforms for health and physical activity information (GOODYEAR; ARMOUR; WOOD, 2019).

It’s probably going to become a necessity. Look at where we are at the moment. I mean, in 5 or 10 years, think how digital we might be. It makes sense at the end of the day [to use social media]. It’s the easiest way to communicate and reach out to our students. (Steve)

Significantly, the World Health Organisation (WHO), Public Health England (PHE) and many in the PE profession have advocated the use of digital technologies in engaging populations in health-related behaviour change (PUBLIC HEALTH ENGLAND, 2017; WORLD HEALTH ORGANIZATION, 2018; GOODYEAR; ARMOUR, 2019). However, whilst digital technologies such as social media have been identified as an accessible and potentially rich resource to learn about health, physical activity and the body (CASEY; GOODYEAR; ARMOUR, 2017), teachers have, thus far, been somewhat resistant to their use, with some struggling to integrate digital technologies into their practice in innovative and pedagogically sound ways. This has resulted in somewhat of a pedagogical cul-de-sac, but it now seems timely to reverse out of this dead-end.

Teacher resistance has also been attributed to limited teacher training on the use and application of digital technologies in the classroom (HYNDMAN; HARVEY, 2019; LAW; PELGRUM; PLOMP, 2008). Indeed, many teachers in this study reported that their digital technology training focused almost exclusively on the dangers of these platforms. Whilst this is representative of the risk narrative commonly associated with social media (LIVINGSTONE, 2008; BALLANTYNE; DUNCALF; DALY, 2010; SEN, 2016), it meant that teachers such as Callum were ill-equipped to successfully utilise social media sites for pedagogic reasons:

During my PGCE, all the stuff we got taught about social media was focused towards like don’t become friends with kids, change your name, don’t post anything offensive, don’t be irresponsible. Obviously, that’s important stuff, but we didn’t get told how to use it in a positive way.

Consequently, while digital technologies have promised much they have, up to this point, delivered much less (SELWYN, 2016). Nonetheless, the sudden onset of the pandemic threw many teachers in at the technological deep-end, forcing them to use and become accustomed to digital technologies such as social media almost overnight. During this period, especially when schools were forced to adopt digital technologies as the default method of teaching and learning (SCULLY; LEHANE; SCULLY, 2021), many teachers, including the PE teachers in this study, began to experience technology in relatively new ways, developing new skills and
competencies. In fact, the rapid move online may have made teachers more receptive to and confident in using digital technologies, giving new energy, vigour and hope to what has been something of a hollow ambition for PE. Clearly though, and as has been highlighted in this study, there is still a long way to go if the potential of digital technologies to be used in pedagogically sound ways to engage young people in positive health-related behaviours is to be realised.

3.3 THE INEQUITY OF REMOTE LEARNING

Some teachers raised concerns about the inequity of remote learning (including social media) both during the pandemic and in the future, noting that pre-existing inequalities had been heightened because of the move to online schooling. Amanda, for example, suggested that socioeconomic, geographic, and technical factors meant that some pupils in her school were without devices or internet access:

I've seen lots of other schools doing fitness challenges, but lots of our kids don't even have computers or internet access at home, so we haven't wasted our time posting everything under the sun. That kind of thing isn't something we can do if we want to get results.

This problem is not unique to Amanda's school and many have argued that this is an issue globally. In a recent study in the United States, Mercier et al. (2021) reported that approximately half of the student population were without the necessary technology to learn effectively during the pandemic. Similarly, a survey by Education Scotland (NATIONAL OVERVIEW..., 2021) found that 48% of students had to share devices with someone else at home. This is a particular concern given data from Sport England (2021) which shows that activity levels are lowest amongst young people from lower socioeconomic groups, and their physical activity was most affected by the pandemic. Yet, these are the young people who most needed access. However, they were deprived of many, or any of these PE experiences, as well as of everyday interactions with their teachers. As evidenced here and in research conducted by Bates et al. (2020), Avila et al. (2020), Jiao et al. (2020) and Singh et al. (2020), this left many young people potentially disadvantaged, isolated and anxious.

Equally concerning, is news that pupils with disabilities or special educational needs encounter additional barriers to online learning. Webster et al. (2021) reported that online learning can be significantly disabling, dependent on impairments to vision, cognition, hearing, and/or dexterity. If these barriers are added to those above, then some young people in this study were undoubtedly more disadvantaged in their learning, with their involvement in online activities potentially restricted further.

In recognition of the lack of access many pupils had to online learning, the Department for Education and several Internet providers in the UK independently launched initiatives during this period (e.g., GET HELP WITH..., 2020) to provide some disadvantaged pupils in England with free laptops and Internet access. However, the appeal and motive of these digital offers is perhaps questionable in that many of the laptops received by students were second hand, without the necessary software, and/or the free internet access lasted only for a limited period of time (KELION, 2021).
This meant that many students were unable to access social media platforms and the short and long-term impact of these programmes is therefore uncertain.

Covid-19 has undoubtedly brought existing technological inequalities, otherwise known as the ‘digital divide’, into sharper focus and has, in many ways, compounded these inequalities, creating new fissures in society as technology decides who can access learning during the pandemic. As a result, some students, including those taught by teachers in this study, were unable to take part in many of the activities shared through social media. This issue was a concern to the PE teachers and could be further exacerbated if digital activities become more commonplace in PE.

Consequently, if digital technologies such as social media are to fulfil their potential and become a rich and inclusive resource that engages young people in positive health-related behaviours, students need equitable access to the internet and the necessary devices. While this is likely to require new and relatively progressive policies at a governmental level (e.g., free universal internet access and giving every student a laptop), we argue that these types of initiatives are necessary. Indeed, if different governments are serious about their vision for high-quality, high-tech education, including in PE, it is imperative that we level out technological inequalities so that teachers and teacher educators can develop inclusive and pedagogically sound practices utilising digital technologies such as social media to promote learning in PE.

4 CONCLUSION

This study has explored PE teachers’ use of social media as a teaching tool in PE and for teaching PAH during the pandemic. The study found that many PE teachers created homemade fitness challenges and competitions as well as shared activities created by fitness celebrities such as Joe Wicks. However, given that these activities focused almost exclusively on fitness, it was suggested that they were perhaps indicative of one of PE’s broader challenges, retaining the ‘E’ in physical education. To address the needs of students and to overcome the loss of novelty appeal, some teachers did however, change the focus of their teaching of PAH, moving towards fitness-for-life pedagogies associated with maintaining and/or enhancing health and well-being.

The digital legacy arising from covid-19 was highlighted by many teachers, suggesting that they had developed new digital skills and competencies as a result of being thrown in at the technological deep-end. We hope that this new energy and vigour might breathe life into what has been a relatively hollow ambition for PE i.e., for digital technologies to be used in pedagogically sound ways to engage more young people in positive health-related behaviours. However, for this to be realised, we recommend that teachers receive effective initial teacher education and ongoing professional development in the positive use of digital technologies such as social media, to enable these platforms to engage young people in meaningful physical activity and learning. In addition, we suggest that future online activities specific to PAH incorporate explicit learning across all domains. What is more, due to the lack of
access some students had to internet access and hence online learning, we suggest that more needs to be done in terms of government policies in order to level out existing technological inequalities, especially if digital technologies are to hold a more prominent position in PE.

As with all research, the findings need to be considered in light of the methodological limitations of this study. For example, data were collected from twenty-six teachers and, therefore, only cautious claims can be made about how representative these findings are of PE teachers’ PAH practices and approaches more broadly. Also, there was a reliance on interview data which meant that perhaps more importance was afforded to teachers’ thoughts and beliefs rather than their actions. Nevertheless, screenshots, as a method of data collection, did capture some teachers’ use of social media to promote PAH goals. Key recommendations emerging from this study are for further research to be carried out on the impact of covid-19 on the teaching of PAH and the associated outcomes, including the short and long-term effect activities promoted on social media have on students’ participation and engagement in PE and physical activity. It is hoped that this study has helped shed light on PE teachers’ use of social media during the pandemic whilst raising some important questions about the future of online learning in the subject.

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Resumo: Este estudo concentra-se no uso de mídias sociais por professores de Educação Física (EF) para o ensino de atividade física para saúde durante a pandemia de covid-19. Com base na pesquisa apreciativa e utilizando uma metodologia de teoria fundamentada em dados (Grounded Theory), a análise de duas entrevistas e uma tarefa digital permitem apresentar três principais temas: (1) Mídias Sociais como Ferramenta de Ensino; (2) Um Legado Digital Duradouro?, e; (3) Desigualdade do Aprendizado Remoto. Esses temas destacam a urgência em utilizar mídias sociais quando os espaços físicos da EF foram removidos, o reconhecimento de que o ensino poderia ser diferente no futuro e os desafios inerentes aos espaços digitais. Em conclusão: (1) defendemos a efetiva formação inicial e continuada de professores e no uso positivo de tecnologias digitais; (2) sugerimos que atividades on-line futuras incorporem ao aprendizado, e; (3) exigir aos governos ações para nivelar as desigualdades tecnológicas.


Resumen: Este estudio se centra en el uso de los medios sociales por parte de los profesores de Educación Física (EF) para enseñar actividad física para la salud durante la pandemia de covid-19. Con base en la investigación apreciativa y utilizando una metodología teórica fundamentada en datos (Grounded Theory), el análisis de dos entrevistas y una tarea digital permiten presentar tres temas principales: (1) Medios Sociales como Herramienta de Enseñanza, (2) ¿Un Legado Digital Duradero?, y (3) Desigualdad del Aprendizaje Remoto. Estos temas destacan la urgencia de utilizar medios sociales cuando los espacios físicos de la EF fueron suspendidos, el reconocimiento de que la enseñanza podría ser diferente en el futuro y los desafíos inherentes a los espacios digitales. En conclusión, (1) abogamos por la efectiva formación inicial y continua de profesores en el uso positivo de las tecnologías digitales, (2) sugerimos que actividades online futuras sean incorporadas al aprendizaje, y (3) demandar a los gobiernos acciones para nivelar las desigualdades tecnológicas.

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The authors have declared that this work involves no conflict of interest.

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