The curriculum took a back seat to huff and puff: Teaching high school health and physical education during Covid-19

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Abstract
This study examined secondary (high) school teachers’ experiences of online delivery of health and physical education (HPE) during Covid-19 suppression measures in one Australian state in 2020. Research has noted the use of blended learning and flipped classrooms in HPE, yet little is known about the delivery of fully online school HPE. Semi-structured interviews occurred with eight high school HPE specialist teachers, providing qualitative data for analysis. The analysis of teachers’ experiences indicated that in most cases HPE did not happen; rather, physical activity provision was initiated, or HPE was marginalised to a movement break between subjects with perceived higher status and priority. Additionally, teachers found that providing HPE online was challenging, and struggled to connect with, engage and provide equitable opportunities for their students online. The results showed that the move to online provision of HPE resulted in diminished educative purpose.

Keywords
Health and physical education, Covid-19, marginalisation, physical activity, online teaching

Introduction
Since December 2019, the Covid-19 pandemic has affected the role of teachers and education professionals. Many have experienced change at both organisational and operational levels. The global
pandemic suppression measures abruptly thrust schools and teachers into unfamiliar territory. Students were no longer physically ‘present’, but rather remote, distant, and in some cases remotely present in an online environment but faceless (Coulter et al., 2021). In many ways, it was reasonable to anticipate that schools and teachers were not ready or prepared for such monumental change and that the ‘everyday pragmatics’ (Pill, 2016) of health and physical education (HPE) teachers were challenged and changed in the need to move teaching online. In this paper, the term HPE is used because in Australia it is the learning area encapsulating the subjects health, physical education (PE), and aspects of outdoor education (Australian Curriculum and Assessment Authority (ACARA), 2020). As such, the teachers in this study were HPE teachers. According to Hall et al. (2020) and Silva-Filho et al. (2020), in addition to being teachers of the curriculum, HPE teachers have been viewed as essential professionals who facilitate student health and wellbeing, a role accentuated during Covid-19 suppression measures. In many countries, the delivery of HPE rapidly evolved into lessons made for a home environment, communicated through screens, and free of physical contact or human proximity (e.g. Howley, 2021; Varea and Gonzalez-Calvo, 2020). This represented a substantial shift from the daily settings and surroundings that HPE teachers typically work in.

Studies are emerging that capture the perceptions and experiences of practising HPE teachers during the first year of the pandemic period (e.g. Cruickshank et al., 2021b; Dhawan, 2020; Howley, 2021; Jeong and So, 2020). Teachers in these studies spoke of having to use trial and error to ‘figure out’ how to be more flexible with their teaching and learning, as well as recognise established elements of teaching and learning which were no longer feasible or appropriate. After quickly negotiating the initial unexpected impact of the pandemic on their practice, there was a gradual coming to terms with adopting new methods; however, teachers indicated that they did not feel prepared for such a rapid transition to online learning delivery and struggled with adjusting to the difference in this modality from face-to-face delivery of lessons. In terms of the activities provided, some were very fitness based, lacked continuity, and were primarily to get the students active (Cruickshank et al., 2021b; Howley, 2021). Often, the teachers seemed to position themselves as fitness trainers or the activities were viewed as gap fillers between other subjects. Indeed, the activities bear resemblance to those from the popular ‘PE with Joe Wicks’ (Pill et al., 2020).

While students’ engagement in physical activity should be encouraged, particularly in light of recent research (Dunton et al., 2020) noting global physical activity decreases during Covid-19, such approaches are rarely accompanied by an educative purpose or themes (Dyson, 2014), and do not foster sustainable learning or promote behaviour change. In the Covid-19 experience studies to date, some teachers show little evidence of thought to fundamental movement skills, movement competence and motivation, young people’s personal and social skill development, and health literacy development for their wellbeing (McCaffery et al., 2020; Sortwell and Ramirez-Campillo, 2022). These core elements and many others represent the content strands and descriptors that underpin the HPE curriculum (ACARA, 2020), thus providing a framework for the education and development of all school students in the HPE learning area. Several teachers in studies such as Cruickshank et al. (2021b) and Howley (2021) noted that they believed that learning online would endure for only a few weeks, therefore they were not concerned with teaching techniques and content that aligned with educational learning outcomes that were measurable and connected with the curriculum. Teachers noted a lack of student attendance, a reduced number of student questions when compared to a face-to-face environment, and students not turning on cameras or microphones when other students were present. They expressed concern
over the effect Covid-19 was having on their students and their social and emotional wellbeing. Specifically, there were issues with social connectedness and self-esteem, with teachers commenting that online learning had affected the students, their bodies, and their social interactions (Howley, 2021; Namli and Yucekaya, 2021; Varea et al., 2022).

In recent years, there has been an increased awareness that the HPE learning area can be marginalised within schools (e.g. Cruickshank et al., 2021a; Gaudreault et al., 2018). The likelihood of HPE becoming further marginalised during Covid-19 may have been amplified by the forced changes to teaching and learning and the rapid nature in which these occurred. According to Namli and Yucekaya (2021), the accumulation of a multitude of factors over a short period of time had an immediate but lasting impression on HPE teachers, in many cases contributing to a lack of desire and demotivation towards their profession, and low job satisfaction. It is probable that concerns about the health and wellbeing of their students, establishing and maintaining a connection with students, and social impacts on students were at the forefront of many HPE teachers’ thoughts (Cruickshank and Mainsbridge, 2021; Gillespie, 2005). Teaching and learning online are very different from that of a face-to-face environment, particularly with respect to communication, interaction, and professional relationships (Stone and Springer, 2019). Student–teacher relationships are often suggested as the building blocks for all activities and learning; once these relationships are established, then meaningful communication and interaction can occur to cultivate engagement and learning (Martin, 2019). This is evidenced by early research into the experience of teaching during Covid-19 suppression measures which suggested that teachers experienced numerous challenges in making personal connections and communications with students. The lack of face-to-face collaboration made it difficult to bond with old and new students to maintain or develop relationships that complemented learning (Howley, 2021).

Varea et al. (2022) explored the changes to PE experienced by 12 Spanish pre-service teachers and expressed concern that teaching was dehumanised by the move to online learning. Varea et al. (2022) noted that encounters with students were reduced, activities in groups occurred much less often, and fewer cooperative moments with students were experienced. The pre-service teachers remarked that HPE lessons were more like video tutorials of exercises with a little bit of movement. From an HPE pedagogical standpoint not being able to physically see, engage with, and provide concurrent feedback to students, and to plan for quality and functional learning would presumably be complex and not customary for many teachers (Jeong and So, 2020; Mercier et al., 2021). It can be hypothesised that transferring teaching and learning online may occupy increased planning time, promote one-way teacher-to-student communication, and impart a state of uncertainty on learning expectations for both teachers and students.

Currently published studies (e.g. Varea et al., 2022; Webster et al., 2021), although limited in number, have reported teacher sadness and anger regarding how HPE has changed and had its educative identity threatened during Covid-19 suppression measures. In terms of readiness for delivering HPE in unpredictable times, researchers have identified that teachers need to be better familiarised with distance education and technology going forward as a result of the pandemic (Varea et al., 2022; Webster et al., 2021). Additionally, it was suggested that while distance education has advantages, face-to-face education cannot be replaced, and teachers of practical subjects such as PE and science in particular face difficulties in providing online education (Lau et al., 2020). Although there is some evidence of the impact of the pandemic on HPE teaching and teachers globally, currently in an Australian context there is an absence of research literature relevant to high school HPE practice during this period. Hence, the purpose of this study is to examine the experiences and practices of Australian high school HPE teachers during the Covid-19 pandemic to see if
the educative integrity of the learning in the subject was maintained. This examination reports on Covid-19 suppression measures experienced by Tasmanian teachers for approximately nine weeks. These suppression measures resulted in students learning online and at home during this time, apart from students of essential workers who were permitted to attend school.

As the context of this paper is in one state of Australia, it is relevant to note that much of the research referred to discusses PE. In Australia, PE is included within the Australian curriculum (AC) as the Movement and Participation Strand of the HPE curriculum framework (ACARA, 2020). The AC: HPE combines the subjects Health and PE into the learning area, HPE. The AC: HPE is underpinned by five ‘key ideas’: (i) focus on educative purpose, (ii) take a strengths-based approach, (iii) value movement, (iv) develop health literacy, and (v) include a critical inquiry approach (ACARA, 2021). Tensions have been reported between those who promote the educative purpose of PE for movement outcomes and those who emphasise the physical nature of PE and achieving health promotion outcomes (Pill, 2016).

**Methods**

The study implemented an interpretive perspective based on the assumption that the social reality of teaching high school HPE online is subjective and shaped by human experiences and social contexts (ontology) (Rosenthal, 2018). As a social reality, the human experience of teaching HPE online during Covid-19 suppression measures in 2020 could be studied within its socio-historic context by interpreting the individual experiences of participants (Smith, 2017). This is consistent with an epistemology of constructivism. Aligned with constructivism is our acknowledgement that meaning from the data collected for this study is constructed not discovered and meaning does not reside independent of the researchers (Smith, 2017). A qualitative methodology comprised of interviews was used to collect and analyse data from participants (Crotty, 1998; Smith, 2017).

**Ethics permission statement**

This study was approved by the University of Tasmania Social Sciences Research Ethics Committee (Approval Number H0018190). Data collection commenced after ethics approval.

**Participants**

Eight Tasmanian HPE specialist teachers (four male, four female) participated in the study. They had an average age of 28.5 years (±5.3), and an average of 2.9 years’ teaching experience (±1.9). Participants taught HPE in co-educational secondary (high) schools across Tasmania. In Tasmania, teachers are directed to use the AC: HPE for programme content alignment and student achievement standard assessment consistency (ACARA, 2020), but are given autonomy to deliver the curriculum in context-relevant ways. Some participants utilised school and department professional learning around use of preferred online platforms (e.g. how to upload and organise content on Microsoft Teams), but these sessions did not include information on what content to upload or how to teach it. It appeared that the teachers and their HPE departments were largely autonomous in terms of what content they planned while teaching HPE online, and the format within which it was delivered and communicated to students. Outside of their school HPE department participants also shared ideas and resources within their HPE teacher networks.
Procedures

Secondary school HPE specialist teachers were contacted through their school principals and invited to participate in semi-structured interviews. Interview participants were purposefully sampled from teachers indicating their willingness to participate, to ensure variety in age, gender, school, and geographic location. The interview questions (Appendix A) were developed through an analysis of the existing literature regarding the teaching of HPE online. The first and third authors independently developed potential questions before the research team met to discuss, refine, and agree upon the final interview questions.

All interviews were semi-structured in nature, and conversations therefore varied slightly based on the experiences and views shared by participants, with the interviewer asking clarifying questions as required. All interviews were conducted through Zoom by the third author during April and early May 2020 (most Tasmanian students were learning from home from mid-March to late May) and were audio-recorded. Interviews lasted for an average of 29 min. A decision was made to cease the interviews after conducting eight because clear recurring themes were constructed from participant responses after this number; consequently, it may be considered that a point of saturation of findings was reached at this time (Saunders et al., 2018).

Data analysis

The qualitative data was considered as a single data-set to gain an impression of the ‘whole picture’ of the studied phenomenon: secondary school HPE teachers’ perspectives of online delivery of HPE curricula in response to Covid-19 suppression measures. The interview data was interpretively analysed, recognising that the social reality of teaching HPE is embedded within and impossible to abstract from its social settings; therefore, the researcher must interpret the reality through a sense-making process (Bhattacherjee, 2020).

We followed Braun and Clarke’s (2006, 2019) six phases of a thematic analysis. Interviews were transcribed by the first author before being shared with all authors, who independently familiarised themselves with the data through reading, re-reading, and noting initial ideas and connections (phase one). An inductive approach was employed, beginning with a set of empirical observations, seeking patterns in those observations, and then theorising about those patterns (DeCarlo, 2018). The coding was an iterative process in which priority was given to the data but understanding that ‘data are not coded in an epistemological vacuum’ (Braun and Clarke, 2006, p. 84) in that our analysis was inevitably facilitated by the previous understanding developed in the initial reading (Elliott and Timulak, 2005).

The authors independently undertook phases two and three of generating codes and searching for (semantic and latent) themes (Braun and Clarke, 2006) before meeting to review the data-set and coding further to delineate the codes and the relationships between the codes, and then define and finalise our themes (phases four–six). Several meetings and many emails between authors occurred as we went back and forth through previous phases to develop our themes. This process of review and refinement was collaborative and reflexive and continued until we were confident that we had constructed the key themes that conveyed the essence of the phenomenon that could be traced back to the data (Elliott and Timulak, 2005). Indicative quotes have been chosen and presented to illustrate themes, yet other participants also gave similar responses.
Results

The high school HPE teachers’ experiences of teaching HPE online during Covid-19 suppression measures are summarised in Table 1. Analysis of the qualitative data led to the development of two key themes:

1. **Marginalisation of HPE curriculum expectations:** In many cases, HPE was altered to physical activity/fitness or marginalised to just being a movement break between subjects with higher status and priority.

2. **Providing HPE online was challenging:** Teachers struggled to connect with, engage and provide equitable opportunities for their students online.

Discussion

The results suggested that for these teachers, the influence of Covid-19 forcing school curricular delivery online was (further) marginalisation of expectations for HPE. The ‘everyday pragmatics’ (Pill, 2016) of the teachers were understandably challenged and changed by the need to move teaching online. It appeared that the curriculum had taken a back seat to what could be colloquially referred to as ‘huff and puff’, a common phrase in Australia that refers to breathing heavily after aerobic exercise of at least moderate intensity. Less colloquially, participant data indicated that the key ideas of the AC: HPE were often marginalised while student wellbeing and physical activity accumulation were prioritised. The following discussion explores this development through the two themes identified from the qualitative interpretive analysis.

**Marginalisation of HPE curriculum expectations**

It is apparent that for most teachers HPE was altered to physical activity/fitness provision or marginalised to just being a movement break between subjects with a perceived higher status or priority. In alignment with other recent international studies of online PE teaching during Covid-19 (e.g. Coulter et al., 2021), an emphasis on the physical nature of PE and not the educative intent was evident. The teachers reported online delivery of health education to be easier than PE, but appeared from their volume of comments specific to physical activity provision and attempts to get students ‘off screens’ and moving, to place an emphasis on the ‘P’ in PE and not to place much emphasis on health education. While gains have been made in developing the educative intent of PE through curriculum statements directing teacher attention to how PE is distinct from physical activity opportunity (ACARA, 2020), it has previously been suggested that historically in Australia, student learning in PE has not always been a primary expectation of PE teachers (Smyth, 1995). This contributed to PE becoming positioned at the periphery of education priorities (Penney, 2008), as the educative intentions of PE were more rhetoric than reality (Hickey, 1995) and learning outcomes were neglected. Participant data from this study aligns with this historical perspective of PE, which indicates this perspective persisted, or alternatively, that it was defaulted to during the move to online learning. Either way teachers seemingly bear some responsibility for this situation, given the autonomy they had with respect to their teaching during Covid-19 suppression measures.

In Australia, and internationally, it is recognised that HPE has often struggled for legitimacy and acceptance in school curricula. HPE has been situated as subordinate to more academically viewed subjects (Cruickshank et al., 2021a; Gaudreault et al., 2018), a situation that was increased during
| Theme                                      | Sub-themes | Quotes                                                                                                                                                                                                 |
|-------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Marginalisation of HPE curriculum expectations | Physical activity | So, we made a video at the beginning of the week and just gave the students little tasks, sometimes it was just getting a certain number of minutes walking with family members (Participant 1). We created a grid that had 25 different activities with different values or points. So, you have to accumulate seven points a week to get your HPE tick. Things like a lot of static body weight exercises like push ups, going for a walk around the neighbourhood (Participant 5). I sent links to a multitude of different activities that they could log on to, but my main message to the kids was just make sure you're active every day (Participant 6). We focused on the physical side of things and got them [students] moving as something I really didn't like, they were sitting down a lot, they were always looking at a screen (Participant 8). |
|                                           | Lower expectations | We might have said do PE with Joe Wicks but the kid comes back and said I did a walk and so you are still happy with that because they're still doing something (Participant 2). We definitely stepped back on the health stuff, because we said we know that you are loaded up with other stuff. I think the biggest thing was that pastoral care for students (Participant 3). So, we said if you can't get to the health work because you're too stressed with other stuff then do your PE stuff or go out and go for a walk or a ride or whatever (Participant 4). I had a grand plan at the beginning, focus on the curriculum, check in with mental health, etc and to be honest, towards the end, the curriculum took a backseat, and it was all about the mental health, if we didn't get to the curriculum then that was okay in my eyes. As a school, we put that [student mental health] first, which was really great (Participant 8). |
| Providing HPE online was challenging       | Equity      | We tried to keep it as fair as possible but obviously it is easier to give those students face-to-face in the classroom more help (Participant 1). In cases that kids didn't have internet we had to send a hard copy of what we required, they were the tricky ones because you are sending stuff home and not getting it back, so you don't know whether it's actually getting done (Participant 2). They didn't want the kids at school to have an advantage because they didn't want kids talking to kids and saying because I am here I get more help and then suddenly we have more kids turning up. It was a bit frustrating at times trying to explain it in a message and it's like how do I word this because I can't really explain this on a board or anything. Sometimes I did break protocol, I thought bugger it and walked down to the classroom, alright this is how you do it, took me two seconds then I walked back (Participant 4). They [students at school] were doing the same work as the students at home, just on computers in class with a teacher, they just had the luxury of being in a small group of maybe 10 kids and asking the teacher questions and I think a lot excelled for that reason, they were able to have one on one with the teacher in a settled environment (Participant 7). |
|                                           | Engagement  | There were a handful that have done all of it [HPE content]. And then those that have done none of it, so trying to get them back on the same level was really hard (Participant 1). There was a couple of students in my classes that we didn't hear |

(continued)
Covid-19 suppression through teaching online. In the content and pedagogical choices they made, the teachers appeared to position PE outside the usual curriculum requirements. When the HPE teachers emphasised physical activity and that they were content with students being little more than busy, happy and good (Placek, 1983) their HPE became less aligned to the academic priorities of the school. This approach has the potential to reduce PE time to a means of redressing their perceptions of long periods of student sedentary activity associated with being at home. Therefore, PE might be perceived as being only of value as a diversion from ‘screen time’ and ‘sitting time’, with no educational significance in and of itself. Thus, it appeared that the historical ontology captured in critical theorising that HPE is a subject at the margins of schools’ educational intentions (Pill, 2016) re-emerged in the way some HPE teachers framed their priorities for HPE during this Covid-19 period.

| Theme                          | Sub-themes                                                                 | Quotes                                                                                                                                                                                                 |
|-------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Teacher–student connection    | from the whole time, and you just got to wonder, like, how are they going with it? I think it definitely wasn’t quality learning because you can’t float around the classroom and make sure students are on task, making sure that they understand (Participant 3). |                                                                                                                                                                                                     |
|                               | We actually saw students that are less engaged at school because of social relationships and behavioural issues, submitting work that I’ve never seen from them (Participant 5). |                                                                                                                                                                                                     |
|                               | It [teaching HPE online] was hard because there wasn’t any interaction [with some students]. There were things in place but I just never got any feedback to know whether or not they had engaged (Participant 6). |                                                                                                                                                                                                     |
|                               | We ran our virtual cross country, which was fantastic, an amazing result to get the kids so involved from home and at school. When you see the kids, the way they were putting in, they were happy, there was banter and jokes, we would drive around at the end of the day and see groups of students walking and running (Participant 7). |                                                                                                                                                                                                     |
|                               | Just to try to lighten the mood a little bit for the students we did ‘home learning heroes’ and every week we made a really dorky video and said this is what your challenge is, film yourself, put it on Teams. And we’ve got some really cool entries, just stuff to get them away from the computers and have a bit of fun and keep the connection (Participant 3). |                                                                                                                                                                                                     |
|                               | Being a new teacher, I started to build relationships with the kids and then they are away for nine weeks, we were still interacting online like doing conferences but it’s just not the same interaction as in person. I just didn’t really know them as well as I would like to (Participant 4). |                                                                                                                                                                                                     |
|                               | I think students were enjoying the interaction because it [learning online] is quite isolating. I teach in a rural area, and the only interaction that some students were having with their peers was via our zoom chats (Participant 6). |                                                                                                                                                                                                     |
|                               | On our HPE team, we filmed a lot of workouts for the kids to do and the kids really got around it. I don’t know if they really went on to do the activities, but it was great for them to just have a laugh at our expense. And it gave us something to talk about when they came back [to school] as well, so that was great (Participant 8). |                                                                                                                                                                                                     |

Table 1. Continued.
Participant comments described a marginalisation of the key ideas of the AC: HPE (focus on educative purposes, take a strengths-based approach, value movement, develop health literacy, include a critical inquiry approach), with these not appearing to be operationalised during their online teaching. For example, Covid-19 highlighted the importance of knowing where to find accurate health information. A person’s ability to recognise reputable health information is part of their health literacy and links to critical inquiry (Nash et al., 2021), yet health literacy was not mentioned by any participant in this study. This appeared to be a missed opportunity to engage students in their HPE learning in the context of a very relevant real-life situation. Participants did mention movement, but this was predominantly in the context of physical activity accumulation rather than the Arnoldian (Arnold, 1979) premise of education in, through and about movement upon which the AC: HPE was developed (Pill, 2016). The elevation of student wellbeing as the provision of opportunity to break periods of sedentary behaviour from school ‘screen time’ is an admirable decision made with the best intentions; however, the PE teachers did appear aware that their well-meaning actions may at the same time be marginalising the educative purpose of PE developing and progressing movement ability in line with the curriculum expectations.

Encouraging students to be active should be encouraged, particularly considering recent research finding physical activity decreased during Covid-19 suppression measures (Dunton et al., 2020). However, this physical activity should be undertaken in addition to PE lessons where students continue to be taught the curriculum. The authors concur with Dyson (2014) that PE is much broader than physical activity and when narrowed to a physical activity accumulation or ‘fitness’ agenda, the educating contribution of PE is diminished. This educative focus plays an important role in perceived and actual movement ability and facilitates the possibility of students being independently responsible and self-regulated towards being active. Put simply, continuing ‘education’ in, through and about movement allows ‘competence’ to be developed, which, along with confidence and choice, are considered key to being physically active (Pill and Harvey, 2019). Overall, there was an absence of ‘the E in PE’ in descriptions of priorities, subject planning, and delivery by the participants at the time of the pandemic.

Consideration by PE teachers of the worthwhileness of the educational purpose of PE as a curriculum activity and as a necessary or expected element of quality PE has been questioned in non-Covid times (Tinning et al., 2001). In a time of Covid suppression measures, the teachers in this study did not seem to see retaining the educational purpose of PE as necessary or an expectation. Indeed, learning expectations appeared lower and sometimes non-existent, whilst checking in with students about how they were active was the priority.

While participant statements indicated a departure from the educative purpose of PE (ACARA, 2020), the quotes in Table 1 indicated that some teachers chose to prioritise activities they believed assisted student wellbeing and mental health. This finding is consistent with other recent research (e.g. Howley, 2021), which found teachers placed ‘an emphasis on ensuring students were supported socially and emotionally during this period’ (p. 11). For some participants (e.g. three and eight), this focus may have been because of students completing mental health surveys, with results indicating that many students were struggling to live and learn in isolation. While teachers should be trusted to know what students need and prioritising student wellbeing was admirable and made with the best intentions, PE teachers should be aware that their well-meaning actions may at the same time be marginalising PE. The AC: HPE aims for students to develop the skills and dispositions necessary for lifelong participation in physical activities (Humphrey and Cruickshank, 2018). Deprioritising the ‘E’ in HPE long-term is going to be detrimental to this aim. However, it is important to acknowledge the unique and complex expectations placed on teachers during
Covid-19 suppression measures and the minimal time and professional development they were given to prepare online content (Cruickshank et al., 2021b). A focus on student wellbeing and physical activity accumulation might have been perceived by the teachers to be a temporary move until suppression measures had eased and teaching returned to normal.

It has been suggested that Covid-19 made it necessary to rethink PE (Varea and González Calvo, 2020). In the Spanish context, Varea et al. (2022) found that pre-service PE teachers struggled with how to re-assemble PE and the pedagogical effects of a different assemblage to meet Covid-19 teaching challenges. In this study, teachers did not report difficulties with how to re-assemble PE to meet the online or blended context forced upon them by the circumstances. Instead, participants seemed intent on pursuing an activity rather than an educative focus. Research from Turkey (Namli and Yucekaya, 2021) reported that the motivation and job satisfaction of PE teachers diminished during Covid-19 suppression measures as their online lessons were not seen to be efficient, they were unable to use different teaching strategies, students’ desire to participate in lessons was low, and PE teachers were unable to be with their students. Similarly, in our study, the PE teachers reported missing the connection with their students that comes from teaching students ‘on site and in class’.

**Providing HPE online was challenging**

Participant concerns centred around the challenges of ensuring equitable outcomes for all students and maintaining positive teacher–student connections. These findings align with recent research (e.g. Howley, 2021) that noted Covid-19 had highlighted ‘pre-existing inequities which inhibited opportunities for equitable access to teaching and learning’ (p. 12). During Covid-19 suppression measures, participants had to provide learning opportunities for students at school (e.g. if their parents were essential workers), online (e.g. through Zoom meetings and online content) and offline (e.g. if they did not have internet access). It appeared that schools tried hard to ensure equal opportunities for students regardless of their learning context. Despite schools’ equitable intentions, it is unsurprising that students with physical and hence easier access to their teachers were able to receive more help. Students learning from home could email teachers whenever they had a question; however, teachers would likely not have been able to respond to these enquiries as quickly as they could respond to questions from students in the classroom. This finding aligns with recent research (Jeong and So, 2020) that noted delayed feedback and teacher responses could result in some students at home not progressing through their learning at the same rate as their peers at school.

For those students learning from home, teachers in this study reported varied student engagement levels with their online learning. Consistent with previous research (e.g. Lester and Perini, 2010; Nash et al., 2020), this engagement appeared to be influenced by factors such as internet access and parental engagement. Not knowing what disengaged students were doing (if anything) was challenging for teachers, with participants voicing concerns about their inability to monitor students’ learning. These teacher concerns have been highlighted by previous research (e.g. Dhawan, 2020; Parkes et al., 2014), which has identified the difficulty of engaging students in an online environment. While participants stated that many students’ online engagement levels were comparable to their face-to-face engagement levels, consistent with previous research (e.g. Cruickshank and Mainsbridge, 2021; Tai et al., 2019) they perceived a strong link between student engagement and student learning. Teachers stated that the variation in engagement, combined with the variation in access to teachers (for students online/offline vs. face-to-face) resulted in a substantial disparity
between the progress and development of different students. While it appeared to take participants considerable time and effort to get students back to a similar point once they all returned to school, compared to some other countries the Tasmanian teachers were advantaged by the fact that Covid-19 suppression measures resulted in students only being away from schools for approximately nine weeks. The disparity may have been an even bigger issue had students been required to learn from home for a longer period.

Most participants detailed the challenges of adapting their HPE programme for online delivery. Whilst participants reported varied student engagement, several did nonetheless note some positive experiences relating to their engagement. These comments indicated that some students did benefit from online delivery of PE and that teachers were able to build on these successes when they returned to the classroom. Schools having success with virtual cross country carnivals have been noted previously (Cruickshank et al., 2021b). While exercise was one of the few reasons that Tasmanians were allowed to leave their homes during isolation (Maloney, 2020), participant comments indicated that the success of events such as virtual cross country included social connection that went beyond simple relief from boredom and ‘cabin fever’.

Connecting with students is an integral part of being a teacher (Gillespie, 2005). Teacher–student relationships are key to students’ achievement and sense of belonging in online learning communities (Stone and Springer, 2019) and participants in this study made a conscious effort to keep in regular contact with their students through email and synchronous online meetings. All participants referred to the use of video during their online teaching, to facilitate student learning and to build and maintain connections with their students. Indeed, it appeared that teachers were prepared to make fun of themselves to engage and connect with their students while they were learning from home. For example, filming themselves to demonstrate and explain physical activities the teachers wanted the students to do at home. These actions align with research (e.g. Hackathorn et al., 2011; McCabe et al., 2017) that found humour can help build student–teacher relationships and increase student engagement in an online environment.

Participant comments from this and other studies (e.g. Howley, 2021; Mercier et al., 2021) have indicated concern that students, particularly rural students, were missing the social benefits of learning together in class. The personal and social skills that can be developed through learning with others in PE classes connect with the education through movement dimension of the Arnoldian perspective (Arnold, 1979) that frames the AC: HPE, and appeared to be a challenging concept for some participants to replicate online. Despite participant concerns about students not being able to interact in person, it seemed the teachers perceived students to be appreciative of the opportunity to meet with their teachers and peers online. Some students may have felt quite isolated during Covid-19 suppression measures due to decreased interaction with their friends and extended families. Interacting with their teachers and peers in school-based online meetings and conversations could have been a welcome break from this isolation; however, more research is required to determine if students viewed this interaction as positively as face-to-face interaction, or, in line with teachers’ concerns around social skill development, simply as the best option available at the time.

Limitations of this study

Some caution should be exercised when considering these findings, as data collection was from a relatively small sample in one Australian state. Generalising beyond the sample is difficult, as the organisation of Australian schools, their staff and their curriculum is the responsibility of the Departments of Education in each state. Different states may have different priorities which...
could affect staff professional development and curriculum delivery. Including the views of other stakeholders such as classroom teachers, students, parents, and school leaders would also be beneficial for identifying the obstacles to a high-quality online PE programme and who (e.g. teachers, parents, school, and government) is responsible for different aspects of this shared challenge.

**Conclusion**

Online teaching has become increasingly popular in recent years, yet many questions remain surrounding the online delivery of PE. Research is beginning to emerge internationally (e.g. Howley, 2021; Mercier et al., 2021) on the experience of teaching PE online during Covid-19. This study contributes to this knowledge by detailing what secondary HPE teachers in one state of Australia did in response to this unique challenge. The influence of Covid-19 suppression measures forcing school curricular delivery online was (further) marginalisation of learning expectations for HPE. Although it may be unrealistic to expect HPE teachers to have developed a high-quality online HPE programme while teaching face-to-face and dealing with all the professional and personal complexities of a situation unprecedented in living memory, the contradiction between the educative intent of the AC: HPE and the provision of PE as a vague notion of physical activity accumulation (Pill, 2016) became accentuated during this period. As such, it appeared that the curriculum had taken a back seat to ‘huff and puff’. While the ‘everyday pragmatics’ (Pill, 2016) of HPE teachers were understandably challenged by the expectation to teach online, a focus on physical activity accumulation is detrimental to HPE being seen as an educational endeavour. Physical activity is important given the physical nature of the subject, but this should not be at the expense of learning. Future research could consider focusing on the design and implementation of online approaches to HPE that include a more educative approach, in line with the five key ideas of the AC: HPE, to secure the future status and effectiveness of the learning area.

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Appendix A: Indicative interview questions

1. Can you explain what you/the HPE department at your school did while teaching HPE online during the time most students stayed home to self-isolate during Covid-19 suppression measures?

Potential prompt questions:

• Did you send HPE tasks home? Can you elaborate on these tasks? Did you run online webinars/classes?
• Did you adapt your face-to-face planning or did you have to plan unique online tasks?
• How were these tasks received? Did students engage with them?
• Was there school-wide consistency in terms of what different learning areas did and what platforms they used?
• Do you think there are any advantages to teaching HPE online?
• Do you think there are any disadvantages to teaching HPE online?
• Were you also required to teach some students face-to-face at school during this time? If yes, can you elaborate on what activities etc. you did?