




## TEACHING ONLINE PHYSICAL EDUCATION DURING SOCIAL DISTANCING USING GOOGLE SITES: PEDAGOGY, STRATEGIES, REFLECTIONS AND BARRIERS OF A TEACHER

*GOOGLE SITES COMO FERRAMENTA DE ENSINO DE EDUCAÇÃO FÍSICA A DISTÂNCIA EM TEMPOS DE COVID-19: PEDAGOGIA, ESTRATÉGIAS, REFLEXÕES E BARREIRAS DE UM PROFESSOR* 

*GOOGLE SITES COMO HERRAMIENTA PARA LA ENSEÑANZA DE EDUCACIÓN FÍSICA A DISTANCIA EN TIEMPOS DE COVID-19: PEDAGOGÍA, ESTRATEGIAS, REFLEXIONES Y BARRERAS DE UN PROFESOR* 

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**Abstract:** Covid-19 has resulted in the implementation of social distancing measures and school closures worldwide. This study explores some of the impacts, such as pedagogies, teaching strategies, reflections, and barriers of the teacher as he suddenly moved to an online teaching environment and taught PE lessons with the use of technology (Google Sites). A self-study methodology with thematic analysis was used to investigate the lead author's experiences. Findings and discussions highlight how the teacher had to find new forms of teaching online, ways of making the students not be exclusively in front of the screen, and simultaneously be concordant with the social and dynamic characteristics of PE. Ultimately, the experiences and the process of reflection demonstrated the need to be coherent with teaching beliefs, assumptions, theoretical approaches and practices as a teacher. This article foregrounds and contributes to future ways of teaching PE online by understanding one teacher's praxis.

**Keywords:** Covid-19. Social change. Physical Education. Distance education. Self-study.

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## 1 INTRODUCTION

Education is dynamic and needs continuous adaptations (LARRIVEE, 2000). The continuing outbreaks of the respiratory disease covid-19 (FAUCI; LANE; REDFIELD, 2020) have changed the meaning and the way education happens around the world (LUGUETTI *et al.*, 2021). The catch-cry for many governments became one of “lowering the curve” as the focus fell on the need to limit the potential impact on health systems by reducing the rate of community transmission through person-to-person contact. By April 2020, most countries in the world had initiated ways of limiting the spread of the virus, including shutting down their borders as well as restrictions on non-essential businesses, schools and other public institutions where people may gather (O’BRIEN *et al.*, 2020). In addition, social distancing and work-from-home initiatives were employed (THE NOVEL..., 2020). The necessity of social distancing consequently led to closed schools in many countries. Educators have had to quickly reflect, adapt, and rebuild their praxis and their teaching.

At the time of writing this paper, the effects of the pandemic on the education system are still not quantifiable, although it is obvious that there will be significant economic, social and educational issues that will have far-reaching impacts. These impacts include changes in the way educators teach and the way they conceptualise the teaching-learning process (ZHAO, 2020). This is particularly true in the context of teaching physical education (PE), where the inability to be physically active in schools changes the way PE is understood and approached. Although the impact of the virus has quite different impacts on individual people, the effects it has on levels of physical activity are clear (STOCKWELL *et al.*, 2021), and research suggests lower levels of movement people’s lives (BELLANTONIO; COLELLA, 2020).

Given the experimental nature of PE as a subject, tensions have also emerged when shifting from face-to-face to the online teaching required during the pandemic (O’BRIEN *et al.*, 2020). As such, there is a need for further understanding the use of technology in the teaching of PE (CASEY; JONES, 2011), particularly when there is a necessity to shift, suddenly, to teaching PE online.

## 2 ARTICLE PURPOSE

There is a lack of research in online PE teaching during social distancing due to the pandemic situation (O’BRIEN *et al.*, 2020). Thus, this paper investigates an example of the use of technology in PE teaching as a result of social distancing requirements during the covid-19 pandemic in New Zealand during 2020 and 2021. Additionally, this paper considers the impact of covid-19 on teaching PE and, specifically, considering the lead author’s pedagogical approach, feelings and assumptions as he responds to the challenge of sustaining his practice in an online environment. Ultimately, it is the focus of this article to build some clarity on how the teacher was adapting and concerned with his critical approach in teaching online PE.

## 2.1 VALUES, BELIEFS, ASSUMPTIONS, AND TEACHING PE THROUGH TECHNOLOGY

Teachers draw their teaching from their student's voices and their own lived experiences, which, in turn, leads to their beliefs and assumptions about teaching (JOSEPH JEYARAJ, 2021). Teachers' values and assumptions start before they actually become teachers, or even before starting their teaching qualification at university (KARLSSON, 2013) – and the combination of these elements is referred to here as a teacher's praxis. Indeed, every educator is influenced by their own personal lives when acting as a teacher (KEMMIS; SMITH, 2008a), thus each person has their own theoretical background, either academic or lived situations, that transforms into theory. In this way, one's assumptions are beliefs understood as the truth about any subject (BROOKFIELD, 1995).

Assumptions normally give teachers meaning for their praxis, and by combining these with values and beliefs, they transform each educative moment in their unique way (BREUNIG, 2005). Considering a critical teaching approach, it is important to constantly reflect on the teaching journey and on the teacher's praxis, to understand their application of methodological and pedagogical approaches while teaching. In the current climate of social distancing and online teaching/learning, it is crucial to analyse and reflect on our assumptions and beliefs as teachers, as well as our praxis. For instance, one may reflect on what was previously believed, or assumed, about in-person and online teaching of PE. Without engaging in the reflective practice, and linking teaching pedagogical and theoretical decisions to teacher's personal beliefs and assumptions, many pieces of one's teaching process can remain hidden (LARRIVEE, 2000).

As with any teachers' assumptions about good practice, each educator forms their own understandings about the use of technology as a pedagogical tool or a way of teaching (PRESTRIDGE, 2012). Moreover, teachers' assumptions about technology and online teaching are frequently different from the other assumptions they hold about teaching in school (ERTMER *et al.*, 2012). However, effective use of technology relies on an aligned integration of the technology with pedagogical praxis and assumptions (MCFARLANE, 2011).

Technology shape and is shaped by society. (BORUP *et al.*, 2006). Thus, technology both configures and is both configured by the way we live and teach. In the last few years, technology has reconfigured the way we communicate, and consequently the way we (can) teach (BOWES; OVENS, 2014). It follows, then, that the use of technology in PE is a topic well explored by the literature prior to covid-19 (CASEY; GOODYEAR; ARMOUR, 2017; KIM; GURVITCH, 2018; KRAUSE; FRANKS; LYNCH, 2017). Noteworthy, however, is the way in which social and health conditions may influence the way(s) educators conduct their classes with the use of technology and/or via online mode in the post-pandemic era.

Previous studies have acknowledged that a structured pedagogical approach is crucial for the success of using technology in teaching (ALI, 2019; WEIR; CONNOR, 2009). Indeed, the same notions must be considered within PE contexts (ARAÚJO;

KNIJNIK; OVENS, 2021; FLETCHER; CASEY, 2014; JUNIU, 2011; WEIR; CONNOR, 2009). Therefore, if the technology being used does not align with the intended learning outcomes, or the needs of the learners, it is likely that efforts to incorporate technologies will not be well integrated with the educational process (BUABENG-ANDOH, 2012). Currently, the need to teach and learn PE online (for social distancing purposes) is a reality faced by many educators and students across all year levels. Given the abrupt nature of outbreaks, this necessity is oftentimes difficult to plan for and implement meaningfully – which in turn impacts a teachers' actions and praxis (SAILIN; MAHMOR, 2018). Moreover, structuring an entire PE programme around online delivery may have once been considered unnecessary, may indeed have a more permanent place – at least for the foreseeable future.

With this in mind, this article attempts to make a contribution to this emerging area by exploring, and indeed acknowledging, the challenges and changes faced by the lead author's experiences shifting to online teaching in his PE programme. To achieve this, the remaining sections constitute a collaboration, with all authors, through reflection and action (FOX; FINE, 2012; FREIRE, 1987). To this end, this paper is written using the lens of praxis and from the voices of the 'insiders' and involved dialogue, critical reflections, and analysis in and about teachers' situations (FREIRE, 1987), in an attempt to share a realistic view of the values, beliefs, and assumptions associated with teaching PE online.

### 3 METHODOLOGY

This research was designed as part of a larger Doctoral study exploring the construction of teaching praxis in PE. In this paper, a qualitative descriptive self-study was applied to highlight the teaching experience during the covid-19 pandemic. The self-study methodology brings a possibility of a further insider's viewing over the educational process (BULLOUGH JR; PINNEGAR, 2001; LUNENBERG; SAMARAS, 2011). By bringing voices from inside to the fore, and unpacking perspectives surrounding the covid-19 restrictions as they relate to teaching PE online and through technology, we intend to elucidate the lead author's perspective (BULLOUGH JR; PINNEGAR, 2001; OVENS; FLETCHER, 2014) during the reconstruction of his praxis.

It is important to engage in open dialogue about educators' praxis – sharing experiences in an attempt to prompt reflection and growth in others (LABOSKEY, 2004; LOUGHRAN, 2018). In this regard, a self-study methodology proposes to cover the necessities presented in this article. This methodology also helped the lead author to improve his teaching while systematically conducting research of the self-in-practice (LOUGHRAN, 2004). Furthermore, elements of the lead author journaling were used to deep dive into the insider's perspective to externalise an unknown teaching setting under the new circumstances.

The lead author, Carlos, is also the main subject of this paper. He is an experienced Brazilian educator teaching in New Zealand primary education for the last three years. As a PE teacher, both in Brazil and New Zealand, he identifies himself as a critical teacher. This teaching approach considers the lens of praxis as a form of critical reflection and a volunteer pedagogical action into the teaching (BRAA; CALLERO,

2006). In addition, following the collaborative nature of self-study, this research also includes a critical friend (a teacher educator) and two additional teacher educators.

To bring the way the lead author (Carlos) enacts his teaching and raise his praxis during social distancing to the focus of this study, this paper brings reflections on a series of entries of the teacher's journaling and analyse of the artefacts used during his online teaching HPE. The narratives entered into a reflective journal throughout teaching PE online supported him to shape his praxis as he reflected upon it at various points during this journey. Therefore, reflective questions were used as a start point to raise awareness and dialogue with data in this article.

The leading question of the dialogues in this paper is: how did I enact teaching PE in this new normative pandemic scenario? This question guided the discussions between me and the critical colleagues and supported new questions and reflections that were raised during the research process. The following sub-questions were raised during the process of debating and research of this self-study: 1) How a PE teacher is enacting his online teaching?; 2) What are the perceptions, assumptions and conflicts that the lead author is currently living through during this process as a PE teacher?; 3) What are the meaning and the purpose of teaching PE during social distancing? 4) How does each praxis is challenged and changed during social distancing?; 5) What pedagogical strategy can be used to teach PE online?

Dialectical moves between the insider, who is the teacher and the lead author of this research, the dialogues with critical friends and the periodical meetings with the supervisors were used as a data source in a collaborative design research process.

This study has used elements of bricolage design to allow the necessary dynamicity to investigate, challenge, engage in a dialogue and illuminate the lead author teaching and praxis (DENZIN; LINCOLN, 2011), moving in multiple ways it's data analysis and dialogues between authors. Bricolage is the process of adopting different research methods and order of data collection and analysis according to the fluidity of situations, and theoretical frameworks needed (KINCHELOE, 2011; KINCHELOE; MCLAREN; STEINBERG, 2011).

Moreover, data were generated and structured over the reflections of the perceptions, artefacts, critical colleague conversations, and personal journaling that the participant teacher in this study performed as a result of the lockdown. Thus, to analyse the data, thematic analyses involving inductive and iterative analysis using thematic were applied (BRAUN; CLARKE, 2019; MILES; HUBERMAN; SALDANA, 2014). Additionally, a pedagogical way to raise the themes was brought by using a previous study (NOWELL *et al.*, 2017). The thematic analysis allowed a broad overview of the context, enabling the researchers to obtain a better understanding of the reconstruction of a new praxis within the influences of the COVID-19 world situation and the outcomes of the necessity of thinking and raising different ways of teaching.

Through deep and prolonged data immersion, thoughtfulness, critical conversations with supervisors, meetings with critical friends, and reflection, themes were raised. As known in the literature (BRAUN; CLARKE, 2019) the action of finding the themes in research is not passive, they are raised by a reflective and creative process while interpreting data and the narratives that surround it. Ultimately, the

credibility of this thematic analysis has been addressed previously (NOWELL *et al.*, 2017). Moreover, these steps guided this paper through the definition of the codes and themes adopted; see table 1. By using thematic analysis, the authors debated, judged, and determined the meanings, and are responsible for, throughout a transparent and open data analysis, coding and theming the data (MILES; HUBERMAN; SALDANA, 2014).

This study used and analysed a total of forty reflective writing journal entries from the lead author, eight recorded conversations with a critical colleague. In addition, artefacts and field notes from eight weeks of online learning were used in this article. These data were studied and analysed to determine the emerging themes.

The themes were developed as follows: A) Clashes in praxis and B) Enacting practice (from online to face-to-face). The scheme to find the themes used in this paper has six phases: 1) the lead author familiarises himself with the data; 2) two codes were created; 3) the lead researcher has searched for themes; 4) the themes were discussed with the critical friend and a review of the themes were conducted; 5) the names of the themes were decided by using the information on the previous phases; 6) and finally the last phase involves writing the report and involves developing the article on theoretical concepts that supported understanding and explaining the data (NOWELL *et al.*, 2017). Ultimately, the data analysis uses concepts from praxis and critical theory (see Chart 1).

Chart 1 – Defining codes and themes using the scheme of NOWELL *et al.*, 2017.

| <b>Phase 1 – Familiarising with the data</b>                             |                       |                                     |
|--|-----------------------|-------------------------------------|
| <b>Phase 2 and 3 – Generating initial codes and searching for themes</b> |                       | <b>Phase 4 – Reviewing themes</b>   |
| <b>Initial Codes</b>   | <b>Initial Themes</b> | <b>Reviewing the themes</b>         |
| Personal values and understandings                                       | Praxis                | Differences and conflicts in praxis |
| Nature of PE   | Praxis                |                                     |
| Assumptions in education   | Praxis                |                                     |
| Feelings of teaching online  | Praxis                |                                     |
| Frustrations of teaching online  | Praxis                |                                     |
| Using technology   | Praxis                |                                     |
| Theoretical approach   | Teaching              | Teaching                            |
| Curriculum   | Teaching              |                                     |
| Pedagogical approach   | Teaching              |                                     |
| Online learning  | Teaching              |                                     |
| Planning   | Teaching              |                                     |
| Learning outcomes  | Teaching              |                                     |
| Using technology   | Teaching              |                                     |
| <b>Phase 5 – Defining and naming themes</b>                              |                       |                                     |
| <b>Themes</b>  |                       | <b>Naming themes</b>                |
| Differences and conflicts in praxis                                      |                       | Clashes in praxis                   |
| Teaching   |                       | Enacting practice                   |
| <b>Phase 6 – Producing the report</b>                                    |                       |                                     |

Source: Topic definition scheme described by Nowell *et al.*, 2017.

This article has used different trustworthiness criteria, such as conversations with critical friends, triangulation of the data sources, and authors checking. This was a reflective process allowing insights, recognition of trigger points and checking contradictions (BRAUN; CLARKE, 2019). The triangulation of the data sources consists in checking and confronting information from the: a) data analyses, b) collaborative meetings, and c) artefacts. The meetings with the critical friend allowed reflection and challenged data interpretation from the lead author. Regarding authors checking, this consisted of the checking of the other authors of this paper on the themes raised in the data analysis. It was a reflective process, generating insights and checking contradictions.

The present paper was conducted following the ethical standards expected by Aotearoa New Zealand and the international academic community. Since this study involves human participation, the University's ethical procedures were fulfilled and permission acknowledged by The University of Auckland Human Participants Ethics Committee.

## 4 FINDINGS AND DISCUSSION

The following section presents the findings of this study and highlights the interrelated variables and challenges that ultimately shaped the praxis in new and unpredictable ways. As the following text demonstrates, teaching PE during covid-19 created some unviable practices and misunderstandings of the teacher role, whilst providing opportunities to improve through critical reflection (FLORES, 2020).

### 4.1 CLASHES IN PRAXIS

Suddenly being in a scenario of social distancing has changed our lives in many ways (LEE, 2020). To balance personal and professional life has been a challenge during the pandemic (MACINTYRE; GREGERSEN; MERCER, 2020). It is also possible to state that the levels of stress and anxiety by the teachers are higher in the pandemic situation (SANTAMARÍA *et al.*, 2021). Indeed, this will reflect in their teaching as their emotions can interfere with their teaching style, processes and outcomes; in teachers' praxis.

After a day of full teaching, an announcement was made the government, confirming one community case (of covid-19). Suddenly we are at home, with no certainty of when we are going back. Now I am here, locked at home, as a teacher, as a parent and as a parent teacher for my own kids. What a journey that will be... I am not sure how my teaching will happen online and how I will be able to manage multiple roles at the same time at home. (Lead author diary)

Praxis is a relevant critical approach in education, including PE (CANADA-PHILLIPS, 2014; MAHON; HEIKKINEN; HUTTUNEN, 2019; WALSH, 2014). Praxis is an empowerment tool to students to learn and become social and political critical voices in society (FREIRE, 1987; KEMMIS; SMITH, 2008b; KNIJNIK; LUGUETTI, 2021). It is suggested that praxis might also be understood as a type of action with engaged people in regards to their actions and how these can change the society

around them (KEMMIS; SMITH, 2008a). In addition, praxis is also a way of being critical and of creating critical consciousness (FREIRE, 1987; MATIAS, 2016). Extending these understandings further, praxis is also considered a political act that involves reflections and reconstructions of values and teaching perspectives according to the lived situation (FREIRE, 1996; LABOSKEY, 2004).

The pandemic situation raises doubt on the nature of PE in itself (LUGUETTI *et al.*, 2021). Teaching online PE became a challenge independently of the teaching approach, however, to teach PE with a critical teaching approach has been even challenger. Ultimately, teaching PE within a critical approach is a way of adopting and applying the concept of praxis in a practical sense in this learning area. It can be present in the way teachers think, plan, and perform their teaching (CANADA-PHILLIPS, 2014).

Within this lens of praxis in PE, it is possible to understand that this pedagogical approach should “link between thinking, feeling, and behaviour in the lived expression of learning to value and believe in movement as an essential element of living as well as the need to learn to be effective and efficient in movement.” (PILL, 2007). Praxis and critical ways of understanding PE are in use in New Zealand; however, this has not always been the case (OVENS, 2010). Therefore, with the shifting to online learning from all schools, this approach has become harder to be applied. As in many learning areas, PE is facing a hard moment through the pandemic situation with the discussion and necessity of adapting from teachers and students (MACINTYRE; GREGERSEN; MERCER, 2020).

I had to teach online PE. I did not want to do an online fitness session or record some physical exercises for the students to copy on the screen. The students have already too much screen time in their learning, so, how should and how can I develop and deliver an online PE programme with allows, critical thinking, creativity, out of the computer screen and it is linked with the students' personal lives?" The answer for this, I don't know yet, perhaps, I have no idea! (Lead author diary).

Carlos: The uncertainty of teaching settings, and most likely in teachers' personal lives certainly will change teachers' praxis and the way they are enacting their teaching. This will be both a challenge and an opportunity for teachers to develop teaching strategies (Lead author in conversation with a critical colleague).

The unknown on how and what to teach in this quick changing of teaching settings raises also a possibility of improvement. Moreover, the lack of certainty from the lead author, also brings opportunities, such as improving teaching strategies and the use of technology in teaching. Therefore, the pandemic situation has been presented as a challenging, yet, time that allows improvement in teachers' teaching (FLORES, 2020).

Our discussions focus on praxis and the meanings and constraints in the current setting of education during the covid-19 pandemic. This allows us to concentrate, among other aspects, on how Carlos developed his praxis as an educator in this new educational environment and situation. By understanding this construction, this study grants educators to improve their praxis within this research and example of teaching practice (LOUGHRAN, 2004).



Teachers can gain important insights related to their teaching during this combination of online learning and social distancing. Teachers have struggled when using technologies in different ways in their teaching journey (LUGUETTI *et al.*, 2021). This is not exactly new as a lack of research in the area of pedagogical approaches teaching PE linked with digital technology is known before the pandemic situation (CASEY; JONES, 2011; TEARLE; GOLDBER, 2008). Teachers are now struggling on using technology in their praxis, indeed.

I became more knowledgeable and critical of my praxis. I decided to use an online portfolio involving many areas of interest in the student's life. This project involved other learning areas, mainly linked with the specialist areas in the New Zealand Curriculum. (Lead author diary)

I hope I have the opportunity to link with other teachers and they like the idea of working with the students in a critical online portfolio life-related (Field note from the lead author).

Within this new scenario of compulsory online learning, linking technology in a critical teaching approach has been challenging. Following this critical approach, teachers should plan their teaching according to their students' past experiences and the reality around them (FREIRE, 1987), which now includes digital technology skills (SAILIN; MAHMOR, 2018). Yet, this affirmation has been questioned by the lead author of this study.

Are the activities and PE lessons planned to meet the necessities and reality of the students while facing social distancing? Do the students know how to use the necessary technology, or even have access to this? The necessity of social distancing came quickly into our lives, this is definitely new to everyone, which includes teachers, who are in charge of planning the activities for their students that are in the same situation. (Lead author diary)

Teaching happens under the influences of personal, social, and cultural contexts and it has to be transformed into practice in the classroom (FREIRE, 1987; GORDON *et al.*, 2016; KUCERA; OVENS; BENNETT, 2020) which involves the way we are teaching during the pandemic. Hence, it is here assumed that personal circumstances and feelings will guide and possibly change the way teachers enact their teaching; the way teachers raise their praxis.

Teaching also does not happen only in a theoretical framework it is connected with the educators' lives and necessities. Thus, as part of their teaching, educators' feelings and perceptions were accentuated during the lockdown and are leading their teaching in an unknown direction. Particularly in PE, many practices have not had a contested, problematised, and critical approach (LAMBERT, 2020) which can mean considering the aspects of praxis into the practice of teaching PE. With this in mind, the lead author has raised many points of reflection related to his feelings and clashes.

I feel useless. Many times, I feel that I haven't been able to deliver the best for my students, to perform my teaching. Enacting teaching and not being there to guide, or watch the students in their learning path is hard and unknown for me as an educator. My values are to do the best for my students. I feel that, by being in social distance, at home, with no school, I would like to deliver more with my PE lessons. I know the power, the social importance, of a PE lesson and how beneficial that could be for the students now. ... Are they going to perform and have this opportunity with the activity

that I have planned? (Lead author diary)

Praxis is now being challenged as to its nature and to raise answers a collective effort and reflection is needed. To that end, praxis can be considered as a collective construction (SMITH; SALO; GROOTENBOER, 2010). Having this assumption and understanding as a teacher raises the importance of teachers' feelings when teaching online. In agreement with this, the lead author raises his perception of this.

Working online makes me feel lonely, I don't feel that I am enacting my best teaching, because I don't have the opportunity to interact with other colleagues and adapt my lessons also on their day-to-day conversations and feedback. (Lead author diary)

#### 4.2 ENACTING PRACTICE: REFLECTIONS AND A PROPOSAL OF TEACHING ONLINE PHYSICAL EDUCATION DURING COVID-19 SOCIAL DISTANCING

To teach PE online, teachers should be prepared to do it across multiple areas. But, within the pandemic, not having time to be prepared, is a reality in many educational settings around the globe (MACINTYRE; GREGERSEN; MERCER, 2020). Previous studies have shown that the effectiveness and the teaching journey is the main challenge for all educators involved (HUANG *et al.*, 2020; O'BRIEN *et al.*, 2020), which has also been raised in this paper.

In the particular PE context-setting, the use of technology must be appropriate and meaningful for its use. Yet, with the current situation, this commonly has not happened. Finally, digital technology tools and pedagogical approaches must contribute to meeting the learning intentions set. This means that teaching PE online should not be the transfer of face-to-face pedagogical approaches to the online settings (ZHANG *et al.*, 2020).

If technology and pedagogical planning are not connected or presented in the teaching and learning process, the impact of digital technology in teaching PE, beyond being a matter of changing teaching settings due to the necessity, is likely to be negligible.

Carlos: Through this teaching journey with digital technology and exclusively online, I was confronted with the issue of how to adapt my praxis to this new setting for the benefit of my students' learning. (Lead author in conversation with a critical colleague)

When considering and deepening the meaning of PE within a critical approach, moving away from normative practices, normally related to sports and technicality in movement (LAMBERT, 2020) students' education should not be exclusively the transferring of knowledge and skills. The process of acquiring information and transforming it into knowledge through movement is a critical journey and requires pedagogical awareness from teachers as guides in the entire learning process.

It is hard to guide my students in a critical teaching approach. By being online I can't be an effective part of the student's learning process. By the time I face (online) my students again, the outcomes were already there, either in an online portfolio, video or photo. Not being able to follow and interact with the learning process brought to my attention the necessity of thinking of the activity as critical itself. (Field note - Lead author)

The pedagogical approach, the use of technology, as well as the activity itself are pathways to students' learning. Thus, teaching online, or making use of technology in PE programmes cannot be reduced to a focus on using the technology as an end in itself (GLOVER *et al.*, 2016). Moreover, educators teaching PE programmes should focus on learning about how to adapt their praxis and use technology in favour of their students.

With this in mind, Carlos has taught his classes using online meetings, synchronised lessons, to present the activities, the learning intention of the lessons and the learning tools to be used by the students. The online synchronised lessons had a 30 minutes maximum duration. In addition, Carlos has created a template webpage using Google Sites for the students to make their copy. Finally, he has used emails to communicate with students after performing the lessons. Interestingly, this pedagogical approach agrees with a previous study that has recently stated that this pedagogical approach, combining synchronous and asynchronous lessons, can be seen as a positive and successful way of teaching online (COHEN *et al.*, 2020).

In Lesson 1, Carlos was to describe and present the technology to be used (Google Classroom) to the students. Students would have to make a copy out of the template website to use their own electronic Google Site as their portfolio. This Webpage had more than one area involved, and it has the main goal on it. This main goal was to be changed by the students according to their reality and learning intention (Figure 1). This was also related to the multiple areas involved in this learning project.

**Figure 1-** Presenting the template of the Google Site and the main goal to the students in lesson 1



Source: Google sites that Carlos (lead author) used in his remote classes.

From the beginning of the online PE lessons, Carlos decided to use and explore the portfolio template for the students. Knowing that the learning environment can be a problem when using online learning, especially during the covid-19 restrictions (ZHANG *et al.*, 2020), Carlos used a learning environment that allows students to use it more efficiently, an electronic tool that students from the school normally used in their learning in different opportunities. In addition, this learning environment was aligned with Carlos' pedagogical approach, which had the intention of providing

agency for the students and a connection between learning areas and the student's reality; a clear example of using praxis in education, indeed. Carlos also considered the potential and how practical and easy it was for the students to use this specific digital technology (Google Sites) in the online learning space.

After lesson 1, Carlos had to engage online with students, mainly through emails, to support the students in making their copy of the Google Site to be used as an online portfolio.

As this teaching journey started, a perceived difference between online and presential teaching-learning in this research was the necessity and the opportunity to intervene in the process. It was not possible to interact and guide students while the activity was being developed. For that reason, when using a critical approach to teaching PE, online teaching requires activities that allow critical thinking, agency on learning and body movement from students. Therefore indeed, due to the social and experimental nature of PE (O'BRIEN *et al.*, 2020), there is a clear necessity of understanding the intention of the lesson, the activity itself and even clarity on the subject to be taught when teaching online.

Not being able to enact my teaching face-to-face made me spend more time and critical reflections on my planning. I need to plan activities that promote reflections and critical approaches on PE when students are developing the activities themselves... By the time I see the outcomes will be too late for an assertive intervention on the learning process. (Field note - Lead author)

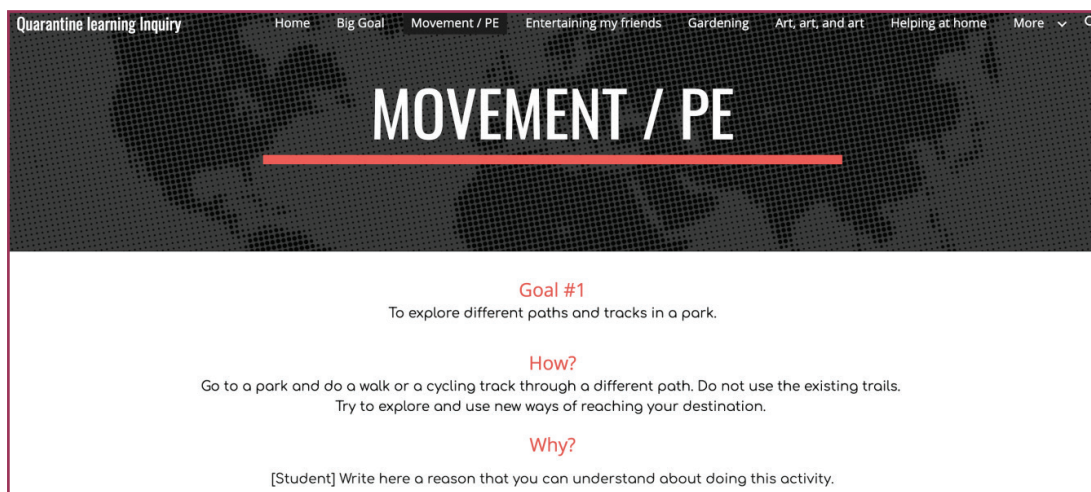
These words from Carlos' artefacts have agreed with the literature when stating that the changes in teaching settings highlight the lack of knowledge from teachers to teach in an online environment (SANTAMARÍA *et al.*, 2021). This lack has raised the necessity for Carlos to spend further time on planning and critically analysing his teaching programme. Therefore, Carlos had to find, develop and deliver activities to the students that allow them to reflect and learn without his guidance along the process; without this practical and social nature of PE, indeed. Thus, the teacher had the intention to find an activity that proposes agency when creating learning outcomes through a critical pedagogical approach.

I need an activity that will take the students to the development of knowledge by the students without any intervention in the process. I need an activity that I can strongly suggest that students will learn with meaning. (Artefacts – Lead author)

Carlos had used two online learning strategies that had been presented as successful when teaching online PE in a previous study (O'BRIEN *et al.*, 2020). Modelling practices in online learning and navigating in the electronic tools were part of Carlos' lessons 1 and 2, respectively. (Figura 2)

During lesson two of this teaching-learning sequence, the lead author presented the PE activity itself to the students.

Figure 2- Picture of the PE activity in online PE - Lesson 2



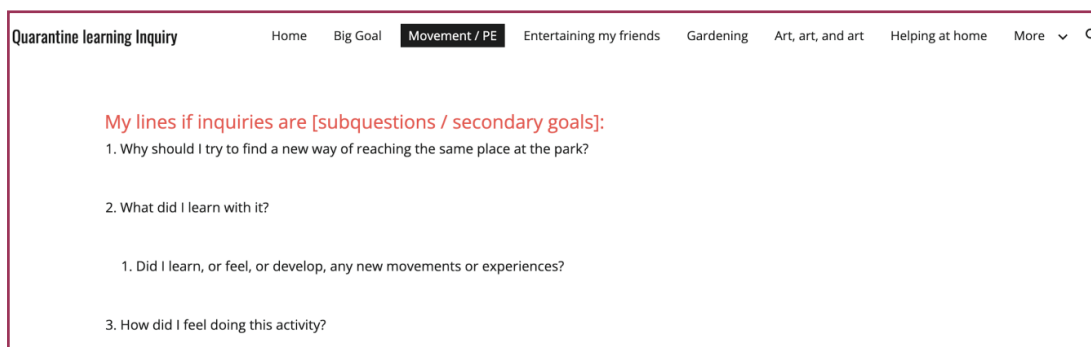
Source: Google sites that Carlos (lead author) used in his remote classes.

During lesson 2, Carlos presented the PE activity for the students and explained shortly what the activity was and the intention of it. The learning intention is described in the activity in the image above (Figure 2). This activity intended to raise a learning outcome and critical thinking from students; as well as critical feedback from them. Carlos described his intention and had made clear how he planned the students to build activity within a critical approach in his field notes. This also would take students out of the screen, one of the critical points raised by this article.

This activity achieved my intention as a teacher with a critical approach. Not exactly because of the written reflection by the students. By allowing and provoking them to find a new path and not using the existing track in the park, I guided them (without any intervention) to find new ways of planning their movements, moving, new ways of locomotion with creativity, agency and a high level of learning involving movement, body and environment. (Field note - Lesson 2 – Lead author)

After presenting the activity to the students, they had some days to do the activity. The teacher gave students three days to complete the activity. Carlos did not ask for the students any form of formal feedback or artefacts in the student’s portfolio at this point. After these three days, Carlos presented the next steps of the activity to the students. This would complete the proposed activity with all the planned lessons.

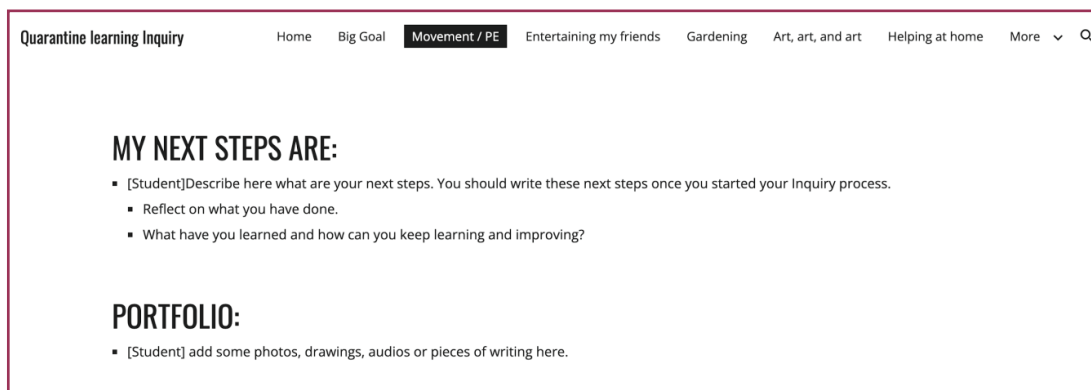
Figure 3 - The step on how students could develop their lines of inquiry, also known as research questions. (Lesson 3)



Source: Google sites that Carlos (lead author) used in his remote classes.

The writing reflections of the students were also asked in the activity. The instruction to do this was described in this third lesson. In this session with students, Carlos presented the activity and also the next steps for the students to do (Figure 3). Additionally, Carlos had shared with the students how this online webpage works as an online portfolio. The relevance of having a portfolio was also part of this class. This was also a moment for an online discussion with students, which is presented as a way of raising engagement during online learning (GANDOLFI; FERDIG; KRATCOSKI, 2021).

**Figure 4 - Presenting next steps for the students - Lesson 3**



Source: Google sites that Carlos (lead author) used in his remote classes.

Asking for images, or other sorts of student's artefacts, in the portfolio have the intention to make them reflect on their learning journey. By revisiting the images, or notes, students brought and thought about their learning process (Figure 4). This was also a way for Carlos to analyse students learning. The pedagogical scheme applied in this lesson agrees with a previous study, which shows this way of teaching as a possibility to lead students to successful learning (GOAD; JONES, 2017).

After showing these instructions to the students during lesson three, Carlos asked them to repeat the activity in the next few days. Carlos' understanding was that, by knowing what to reflect, students may change their levels of awareness and critical thinking, during and after the activity (CRISOL MOYA; CAURCEL CARA, 2021). Ultimately, the students also should record it on their online portfolio (CORBIN, 2021).

Carlos: I think the activity would not be as effective and engraved in the critical pedagogy if I didn't ask the students for evidence on their online portfolio. (Lead author in conversation with a critical colleague).

This finds and discussion presents a practical example of critical teaching online PE while the teacher was facing the quick shift from face to face to online teaching due to the social distancing faced because of the covid-19 pandemic.

## 5 CONCLUSIONS

Changes in PE are taking educators into a deep crisis of identity – one that requires us to (re)consider the meaning of PE in the current context of online teaching. Understanding that the current changes in education may leave a lasting legacy of

changes in education across different aspects and levels, educators of PE must demonstrate ever-increasing sophistication in their planning and implementation, and in the adaptation of their praxis, in the years to come. Ultimately, the experiences and the process of reflection demonstrated the need to be coherent with teaching beliefs, assumptions, theoretical approaches and practices as a teacher.

This study has taken a step towards clarifying the clashes that happen in a teacher's praxis during the transition to online teaching. In addition, we have emphasised that concurrently, the lead author had to find new forms of teaching online, ways of allowing his students to learn while not exclusively in front of a screen, and simultaneously aligning with the social and dynamic characteristics of PE.

By presenting a practical example of teaching online PE using Google Sites, we have attempted to show that, despite the short time frame left for planning and the challenges and difficulties faced by Carlos as a teacher, the process of shifting his teaching to online was an opportunity to reflect critically, and develop accordingly. In this exploration, we have suggested that using Google Classroom as a digital technology to teach PE, accompanied by a critical teaching approach, provides a possibility to offer positive and meaningful learning opportunities for both teacher and learner.

We acknowledge that the findings and conclusion of this qualitative study are unique and cannot be taken as conclusive evidence and cannot be replicated in another research, however, as suggested by previous studies (LABOSKEY, 2004; LOUGHRAN, 2018), this dialogue about Carlos' praxis may spur other educators to reflect on their own praxis when placed in comparable situations now and, possibly, in the post-covid era.

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**Resumo:** A covid-19 resultou na implementação de medidas de distanciamento social e fechamento de escolas no mundo. Este estudo explora alguns dos impactos, tais como escolhas pedagógicas, reflexões e barreiras do professor quando ele repentinamente mudou para um ambiente de ensino online e teve que ministrar aulas de Educação Física (EF) com o uso da tecnologia (Google Sites). A metodologia do autoestudo com análise temática foi utilizada para investigar as experiências do autor principal. Achados destacam como o professor teve que encontrar novas formas de ensino online, fazendo com que os alunos não estivessem exclusivamente em frente à tela, e atendesse as características sociais e dinâmicas da EF. Finalmente, as experiências e o processo de reflexão demonstraram a necessidade de ser coerente com as escolhas pedagógicas e abordagens teóricas e práticas como professor. Este artigo contribui para futuras formas de ensino de EF online, ao compreender a práxis de um professor.

**Palavras-chave:** Covid-19. Mudança social. Educação Física. Educação a distância. Auto estudo.

**Resumen:** El Covid-19 ha llevado a la implementación de medidas de distancia social y al cierre de escuelas en todo el mundo. Este estudio explora algunos de los impactos, como opciones pedagógicas, reflexiones y barreras del profesor cuando este cambia repentinamente a un entorno de enseñanza online, con el uso de la tecnología (Google Sites). La metodología de self-study con análisis temático se utilizó para investigar las experiencias del autor principal. Los resultados destacan que el profesor tuvo que encontrar nuevas formas de enseñanza online, logrando que los alumnos no estuvieran exclusivamente frente a la pantalla, y cumplir con las características sociales y dinámicas de la Educación Física. Finalmente, las experiencias y la reflexión demostraron la necesidad de ser coherente, como profesor, con las elecciones pedagógicas y los enfoques teóricos y prácticos. Este artículo contribuye con las futuras formas de enseñanza de la Educación Física online mediante la comprensión de la praxis de un profesor.

**Palabras clave:** Covid-19. Cambio social. Educación Física. Educación a distancia. Auto estudio.

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### CONFLICT OF INTERESTS

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article

### AUTHORS' CONTRIBUTIONS

**Carlos Kucera:** The leading researcher in the study. The lead author and major writer of the paper. Design of the methodology and the data analysis format. Responsible for data collection and analysis. The principal active participant in discussing data. Formatting of the final versions in English and Portuguese. Translation of the paper to Portuguese.

**Alan Ovens:** Guidance in the research investigation, introduction, and methodology. Active participant in discussing data. Review of the final edited publication.

**Ana Lisa do Vale Gomes:** Effective participation in data collection and treatment. Active participant in discussing data. Guidance in the paper's general structure, writing order, and conclusion. Review of the final edited publication.

**Blake Bennett:** Guidance in the abstract, literature review, and conclusion

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