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ARTICLE

Implications for European Physical Education Teacher Education during the COVID-19 pandemic: a cross-institutional SWOT analysis

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ABSTRACT

The present study, using a sample of Physical Education Teacher Education (PETE) representatives from five Higher Education European institutions (England, Finland, Greece, Ireland, and Portugal) sought to investigate the proposed measures of change required for programme delivery during the academic year of 2020–21. Each team completed a SWOT (strengths, weaknesses, opportunities and threats) examination through inductive cross-analysis, using a deductive structure, following the dimensions of: PETE Programme; PETE Staff; PETE Students. The findings presented at a case level show how each PETE programme is seeking to manage an important tension between the experiential nature of Physical Education (PE) as a subject, in light of the institutional and external constraints towards online and blended approaches. Having identified the thematic variables for PETE at an overall programme, staff and student level, the SWOT analysis heightened PETE pedagogue understanding of the subject beyond 'physical' contact spaces, for meaningful third-level teacher education delivery.

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SWOT analysis; higher education; blended learning; online teaching; pedagogy

Introduction

The global COVID-19 context

Public health updates from the World Health Organisation (WHO) indicated on 12 Marchth, 2020, that the outbreak of the coronavirus disease 2019 (COVID-19), triggered by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was a global pandemic (WHO

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2020). Expert medical viewpoints from Paules, Marston, and Fauci (2020) have outlined that COVID-19 is *'more than just a common cold'*, and while the trajectory of this human disease is currently unpredictable, collaborative responses are warranted as a means of implementing effective countermeasures to control the virus. The virus is highly infectious and can be fatal, leading to government policies to create social distancing and quarantine to restrict the spread of the virus (Viner et al. 2020).

It was estimated in April 2020 that 138 countries had closed their schools to a national capacity (UNESCO 2020), resulting in the educational disruption to approximately 80% of children worldwide (Van Lancker and Parolin 2020). In light of this unprecedented COVID-19 global outbreak, the sustainability of effective learning has been identified as a major challenge across all levels of education (Huang et al. 2020; Dunstan 2020; Zhang et al. 2020; Crawford et al. 2020). The impact specifically on higher educational global lockdown causes significant disruptions to students' learning, assessments, and professional qualifications, aligned to the national qualifying bodies' regulations (Burgess and Sievertsen 2020), where online delivery and assessment represents a critical consideration (Dyment and Downing 2020).

Within online learning, programmes are in some cases defined by the proportion of course time delivered face-to-face, in comparison to online. There is a wide variation of terminology that can be used to describe applications of online education, such as '*eLearning, online learning, hybrid learning, blended learning, distance learning and distance education*' (Jowsey et al. 2020; Murphy 2020). These can be summarised under Allen and Seaman (2013) four types of learning courses: 1) traditional (0% online), 2) web-facilitated (1–29% online), 3) blended/hybrid (30–79% online), and 4) online (>80% online). Distance learning (such is the example from the Open University), however, is available to people who attend mainly online courses, without the need to visit the university campus.

Physical Education Teacher Education

The delivery of Physical Education Teacher Education (PETE) through online learning is a contentious discussion regarding the implications for producing quality, well-rounded graduates (Goad and Jones 2017). Central to this concern is the experiential nature of teaching and learning in Physical Education (PE) (Quennerstedt 2019), specifically the importance of pre-service teachers developing knowledge and skills through connected experiences. One of the most established and prominent theories that underpins effective professional learning in PETE is Lawson's (1983b, 1983a) well-established socialisation theory. Socialisation plays a critical role in effective PETE programme delivery (Richards et al. 2020), specifically to ensure that pre-service teachers within their academic and professional lives do not feel physically and/or intellectually isolated from their peers or school community. One of the most significant implications of the COVID-19 outbreak and the related social distancing measures, however, relates to the reduction of the experiential nature of teaching PE. With this in mind, careful considerations need to be developed by PETE higher education institutions (HEIs) in the face of the COVID-19 context, to ensure that, at the very least, the respective degree programmes can maintain their intended learning outcomes towards pre-service teacher development, at both the social and individual level. In this context, it is imperative to examine carefully and critically the implications of COVID-19 on PETE programmes. Most recently, MacPhail and Lawson

(2020) project on the 'grand challenges' for PE and PETE was based on a cross-country collaboration as part of strengths, weaknesses, opportunities, and threats (SWOT) strategical analysis (Taylor 2016). Such an approach, specifically using a SWOT strategical analysis provides a robust framework for PETE programmes to thoroughly examine aspects of provision across their subject discipline. On account of COVID-19, a SWOT exercise is reported in the current study and is seen as particularly relevant in the light of the potential changes underway for 2020–21 academic year and beyond. It is generally perceived that the online environment will be critical to ensure the viability of the PETE programmes.

Expectations on Teacher Education programmes moving towards online-blended learning

The online learning environment for higher education is an immediate setting in adhering to the COVID-19 social distancing protocol. Dyment and Downing (2020), however, state that if research, practice and policy fail to connect online initial teacher education (ITE), the student experience and graduate learning outcomes may be hampered. Interestingly, Cohen et al. (2020) have recently reported a successful approach with regards a combined synchronous and asynchronous coaching of pre-service teachers in simulated online learning environments. Specifically, the authors found an increased effect of the combined synchronous and asynchronous approach, when compared to asynchronous coaching only in simulated learning environments. Inclusively, the combined synchronous and asynchronous coaching cohort showed positive influences on the pre-service teachers perceptions of students, where this cohort implemented less desirable and less inclusive classroom management behaviours (e.g. suspension, exclusion).

Several innovative solutions utilising technology to improve the virtual learning experience for students in higher education have been proposed, including the flipped classroom model, teleconferencing, and procedural simulation (Chick et al. 2020). Online platforms such as Zoom©, Blackboard©, Canvas©, Google Meet©, and Microsoft Teams© have been developed to support online learning (Jowsey et al. 2020; Ng and Or 2020) in higher education, despite carrying the need for strong stable internet connections for students and teachers to avail of (Jowsey et al. 2020).

Impact of COVID-19 on Physical Education Teacher Education

Recent research would suggest that the following factors are significant considerations for integrating effective online teaching and learning in PETE programmes: (a) modelling online instructional practices; (b) instructor and student interactions; (c) transitioning pedagogical and content knowledge online; and (d) navigating instructional tools and technology (Goad and Jones 2017). In lieu of the COVID-19 context, these considerations for PETE programmes need to include the stakeholder perspectives of the higher education teaching staff and pre-service teachers, not just in terms of the academic and professional qualification, but also on their wellbeing as a foundational aspect to achieve the former outcomes.

It is clear that a number of the externally mandated practical components of PETE face significant challenges, specifically in respect of delivering meaningful student

assessment, alongside each programme's ability to comply with the professional PE qualification standards of the subject (Goad and Jones 2017; Williams 2013). Aligning to Bandura's (1977) self-efficacy research, these challenges for PETE have an increased likelihood to be amplified during COVID-19, given that research has previously shown that the development of pre-service teachers' self-efficacy highly benefits from experiential sources, such as practical, vicarious and mastery-led experiences in PE (Martins, Costa, and Onofre 2015; Peebles and Mendaglio 2014). These challenges, however, also consist of opportunities to reshape teacher education and educational institutions (Flores 2020) in the pursuit of achieving the experiential nature of teaching and learning in PE.

The potential impact of university closure on the wellbeing of academic staff and students

During the COVID-19 pandemic, the wellbeing of the PETE community (staff and students alike) (McCallum and Price 2010) has likely been impacted, as a result of the immediate and acute higher education transition to online teaching and learning. Regarding the future projected academic and financial demands of COVID-19, the higher education community are flagged as an even more susceptible cohort to increasing levels of stress and anxiety (Lee 2020). Proactive measures that support the wellbeing of staff and students are now needed during the COVID-19 pandemic. These are particularly important in order to minimise disruption to education and the transitioning phases towards graduate careers (Flores 2020). In the wake of COVID-19, pre-service teachers of PE (and their educators) have potentially encountered an increase within complex programme management issues, particularly if school placement and clinical experiences have been/or continue to be disrupted. Such wellbeing challenges and opportunities are of critical importance in PETE, as the profession proceeds towards online learning for both pre-service teachers and the future PE graduates in the workforce.

Purpose of the Study

With the forthcoming global challenges for teacher education, the present study seeks to critically investigate the proposed measures of change across five European institutions (England, Finland, Greece, Ireland, Portugal) during the academic year of 2020–21. A SWOT analysis procedure has been employed by a sample of 12 PETE teacher educators, located in the perimeters of the European continent.

Methods

To implement a cross-institution PETE analysis towards the upkeep and update of the programmes in 2020–21, a qualitative exploratory multiple case-study design (Yin 2018) was implemented across five PETE programme teams, from different institutions and countries in Europe. A strength, weaknesses, opportunities, and threats (SWOT) framework was applied, focusing on three key-levels: the programme, staff, and students. This SWOT framework was employed as a deductive strategy, which was then deepened with an inductive strategy for the cross-case analysis. Each PETE team ensured proper ethical

authorisation from the respective institution. The detailed settings and methodologies are described in the sections below.

Settings and participants

Five European PETE programme teams from England, Finland, Greece, Ireland, and Portugal agreed to cooperate in this multiple case-study. Each PETE team consists of a minimum of two respective PETE teachers' educators from each institution (n = 12; see Table 1). It is important to highlight that the five countries have different PETE legislation and organisational structures, including different qualification levels and programme durations, namely: 1) those as a concurrent Bachelor of Education (B.Ed.) programme, with a dual qualification in PE and another subject (Ireland); 2) Postgraduate teacher training course, led by Universities or Schools, and supported by HEI's (England); 3) those as a Bachelor of Education (B.Ed.) programme, with a single qualification in PE (Greece), or those where there is a consecutive Master in Education (M.Ed.) two-year programme (Greece and Portugal); and 4) a Bachelors in Early Childhood Education through a 3 year programme (Finland). Please see MacPhail, Tannehill, and Avsar (2019) for a deeper insight in to the range of international PETE organisational systems. Each country's PETE programme organisational distribution, along with that of each team member, and their respective roles by programme are presented in Table 1.

SWOT data collection

Following the MacPhail and Lawson (2020) rationale, each team was invited to complete a SWOT analysis template (Figure 1) to specifically evaluate how their PETE programme, staff and students at an institutional level were preparing for the forthcoming academic year. For all identified SWOT components, following general prompts, each contributing country identified a set of topics, and then critically debriefed each item raised.

Qualitative data analysis

All of the data were inductively cross-analysed, based on the deductive structure of the SWOT framework components and followed the overarching dimensions of: 1) PETE Programme; 2) PETE Staff; 3) PETE Students. The inductive qualitative analysis process followed a thematic approach (Merriam and Tisdell 2016), whereby the first four authors were allocated a SWOT component each, and analysed it across all five PETE cases (countries). Specifically, each author started the data analysis by reading all five country-specific sources in-depth from the assigned SWOT component for familiarisation; each author then re-read the documentation to start identifying commonalities across the topics according to their debrief. The themes that emerged at the programme, staff and student level in Figure 2 (see below) were derived from each country's completion of the initial SWOT template (see Figure 1 – topics and debriefed topics). Areas of country-specific commonality across the five SWOT exercises were critically explored by the lead researchers, and subsequently identified as SWOT themes in Figure 2 (e.g. external links,

Table 1. PETE programme's brief characterisation and faculty roles.

PETE Programme Country (n = consulted PETE pedagogues)	PETE Programme Qualification Level (Duration/ ECTS)	PETE Team Members	PETE Members Roles
Ireland (n= 4)	B.Ed. (Hons) (4 years, 275 ECTS)	A	Programme Director, Module Coordinator, Lecturer
		B	1st Year Head, Module Coordinator, Lecturer
		C	Module Coordinator, Lecturer
		D	3rd Year Head, Module Coordinator, Lecturer
Portugal (n = 2)	M.Ed. (2 years, 120 ECTS)	A	M.Ed. Director, School Placement Coordinator, Module Coordinator, Lecturer
		B	Module Coordinator, Lecturer
Greece (n = 2)	B.Sc. (Hons) (4 years, 240 ECTS)	A	Module & School Placement Coordinator, Assistant Professor
		B	PhD Director, Professor
England (n = 2)	Postgraduate Training Course (leading to Qualified Teacher Status) (1 year, ECTS)	A	Programme Coordinator, Other tutors contributing to training sessions, School-based Mentors
		B	
Finland (n = 2)	B.Sc. (3 years, 180 ECTS)	A	University Lecturer, Physical Education
		B	Postdoctoral Researcher, DigiLearn

PETE Institution

PETE Programme upkeep and update for 2020-21

General Prompts: Consider key structural and contextual aspects of the PETE Programme **such as, but not exclusively,** School Placement, Modules (practical and theoretical), Resources, Philosophy, Research, Distance Learning, Institutional and National Policies, Programme Positioning in the Institution.

PETE Staff readiness for and engagement in 2020-21

General Prompts: Consider key structural and contextual specific of PETE Staff **such as, but not exclusively,** Team Composition, Team Dynamic, Team Capacity, Leadership, Collaboration, Staff Wellbeing, Digital Literacy.

PETE Students readiness for and engagement in 2020-21

General Prompts: Consider key structural and contextual aspects specific of PETE Students **such as, but not exclusively,** Student Demographics, Student Engagement, Student Learning, Student Assessment, Student Wellbeing, Digital Literacy.

SWOT Components	Topics	Debriefed Topics
Strengths		
Weaknesses		
Opportunities		
Threats		

Figure 1. SWOT Template completed by each PETE programme team.

pedagogy, staff capacity etc). This process sought to construct the themes, by mapping the relevant PETE institutions to where they were located; and finally revisiting the full coding for refinement. The four leading authors then presented their data analysis/interpretation to each other in a triangulation process, specifically to ensure trustworthiness across the analysis. This type of investigator triangulation allowed each of the four leading authors to present their findings for comparison with the rest of the team. In all but one instance, findings from the data analysis were agreed upon, which secured established validity. In one instance of minor disagreement between the authors on account of inconsistent thematic interpretation, the data analysis was probed further by the first named lead author to further evoke the 'true' finding, which ultimately resulted in shared commonality and consensus between the team. Following the leading authors' agreement in this triangulation process, the concluding coding of data was then presented to all remaining authors as a process of member checking, to further enhance data trustworthiness. The themes presented below, therefore, represent a common view across all five PETE institutions as part of this multiple-case study process, and therefore, provide a level of theoretical generalisation (Yin 2018).

Results

Each country-specific case-study critically assessed their individual PETE programme expectations for the 2020–21 academic year, with consistent use of the SWOT data

SWOT Component	Dimensions	Themes	Represented PETE Programmes
Strengths	PETE Programme	Externally Located Strengths	I,P,E,G,F
		Programme-Specific Strengths	I,P,E,G,F
		External Links	I,E,G,F
		Institutional Strengths	I,P,E,G
	PETE Staff	Collective Strengths	I,P,E,G,F
		External Links	I,P,G,F
		Staff-Student Relationship	G
		Personal Strengths	I
		Preparation of Module Updates	I
	PETE Students	Student Community	I.P,E,G,F
		Dispositional Strengths	I.P,E,G,F
		Key Cohorts' Strengths	I
		Lifelong Learning	I
Weaknesses	PETE Programme	Pedagogy	I,P,E,G,F
		Technological Support	I,P,G
		Practical Learning/ Placement	P,E,G
		Attendance	F
		Student retention	F
		Programme facilities	G
		Workload	G
		Networking and support	I
		Research	P
		Assessment	P
	PETE Staff	Team Professional Development	I,P,E,G,F
		Staff Wellbeing	I,E,G
		Team Institutional Positioning	F
	PETE Students	Learning and assessment authenticity	I,P,E,G,F
		Cohort suitability for new modes of learning	I,E,G,F
		Student Community	I,P,F
		Attendance	F
		Resources and infrastructure	P
Opportunities	PETE Programme	Diversity in Pedagogy	I,P,E,G,F
		Digital Infrastructure	I,P,E,G,F
	PETE Staff	Assessment	I,P,G,F
		Academic Collaborations	I,E
	PETE Students	Physical Contact PETE Students	I,P,E,G,F
		Learning Experiences	I,P,E,G
		Familiarisation Digital Landscape	I,P,F
Threats	PETE Programme	Programme Curriculum and Delivery	I,P,E,G,F
		Technological support	I,G,F
		Institutional Threats	I,E,G
		Practical Learning/ Placement	I,E,G
		COVID-19 Pandemic	I
		External Professional Bodies	I
		School PE	P
	PETE Staff	Institutional Management	I,P,E,G,F
		Staff Capacity	I,G,F
		Inter-Institutional Competition	G
	PETE Students	Student Wellbeing	I,P,E,G,F
		Student Engagement	I,P,E,G,F
		Student Cohorts	I,F

Figure 2. Multiple-Case SWOT Themes by Dimension.

analysis procedure under the three leading dimensions: 1) Programme, 2) Staff, and 3) Student (Figure 2).

The findings for the PETE programmes in England, Finland, Greece, Ireland, and Portugal are presented individually, as to provide a critical synopsis derived specifically

from the respective SWOT data analyses. As previously noted, it is important to acknowledge at this juncture that there are different national PETE and Teacher Education (TE) legislations and organisational structures, which add to the differentiation within the country-specific synopsis findings for the forthcoming 2020–21 academic year.

England

Even though the established use of digital technologies, as endorsed at the University, have enabled the students on the PETE programme to stay connected with tutors and school placements (strength), there still remains a cloud of uncertainty regarding the PETE programme's rollout during the next academic year (threat). The running of the existing PETE programme in the 2020–21 academic year will directly correspond to the Government Guidelines issued in the United Kingdom, which are due to be confirmed later in the summer of 2020. Given the implications for these forthcoming teaching and learning guidelines, there will be a significant adjustment and adaptation phase involved. Such a new environment will be felt across all key variables, specifically the PETE programme, staff and student level, given the increased threat associated with online interactions. This new opportunity of learning, which will have a much stronger online component, will require a new way of staff and student engagement. This will require both staff and students to have positive attitudes and the required training to engage in this process effectively.

Some of the known threats for consideration at this stage for the PETE programme at the university, include the extent to which school placements will be possible (i.e. school year duration, number of school visits from the university, school timetable, student assessment on-site in schools), when compared to previously accredited school placement standards for PETE. It is anticipated that some elements of the school placement experience for the PETE programme will differ in terms of the pre-service teacher's expectancies. For this PETE programme in the United Kingdom, it is generally accepted that there is a significant volume of work to be completed at the university level to standardise how lectures will run online, and what resources are required to ensure that lab or practical work can take place in the 2020–21 academic year. The PETE programme, however, have clearly identified that they wish to ensure that the quality of the student learning experience for PETE is maintained through opportunities; specifically, staff at department level want pre-service teachers to have an authentic learning experience, that is as close as possible to the pre-COVID-19 outbreak, which is equivalent or at an improved quality standard provision for PETE.

Finland

The preparation for the 2020–21 academic year at this Finish University has presented numerous existing weaknesses and possible threats, most notably an extra burden on how to present a balance in terms of the required teaching methodologies for students. The student PETE curriculum at University was revised in accordance with the coming academic year (strength), however on account of the COVID-19 pandemic, these curricular alterations have been suspended until the following year. Resources are currently being gathered in preparation for the opportunistic-blended learning format, to account for the

social distancing protocol associated with the delivery of content during the forthcoming academic year.

The University has a well-developed and strong online structure for teaching, learning and assessment. This was designed to accommodate the split campuses, and the proposed COVID-19 changes to teaching are well-supported through the existing digital infrastructure available. As such, the university (more broadly) is of the belief that all subjects can be taught online through increased opportunities, however, the existing PETE programme at the University argues that physical contact within modules are needed to ensure that student competency levels in the subject of PE are upheld (threat). At this stage, many of the decisions for the PETE programme have been made in terms of online provision (weakness), and if certain pedagogical considerations are not yet available, the associated staff are being encouraged to accelerate their planning. These additional demands and threats have caused strain on the existing PETE programme staff. As a result, further support at the staff level are needed to ensure that lecturers can deliver their posts with responsibility, confidence and competence.

The first-year student enrolment and recruitment strategy at the University have been amended due to the lack of access to the university campuses (weakness) during the recent COVID-19 examination period. These alterations to the University recruitment strategy differ from previous years, however, students are somewhat familiar with having to complete studies remotely (strength) throughout their 1st year of enrolment. With the forthcoming blended learning approach, it is not yet known how many students will enrol in the PETE programme for 2020–21 academic year, particularly as students may wish to look for other opportunities that are closer to home. Despite the possible decline in first-year student enrolment numbers as a threat, it is not anticipated that enrolment numbers will be as problematic for the PETE programme, as these opportunistic modular courses at the university have a quota of over 100 students each year for the compulsory studies.

Greece

For the Greek PETE programme at the University, a transition to online teaching and learning is a weakness that cannot be easily addressed for the coming 2020–21 academic year. Despite staff and students in the PETE programme managing to stay connected through digital platforms during the COVID-19 pandemic (strength), the entire process of communication was identified by many PETE stakeholders at the University as a stressful experience, noted by the lack of supportive infrastructure (weakness).

In terms of the imminent threats for online teaching, the documented obstacles for the PETE programme include technological limitations, underdeveloped online teaching skills, and a lack of available coherent professional development programmes. The SWOT analysis revealed for the Greek case-study that pedagogical empowerment and strategic planning are needed, prior to online media use for educators and students. Virtual Learning Environments (VLEs), with supplementary resources can certainly provide opportunities to support the PETE programme practical sessions, however, the quality 'hands-on experience' of the subject discipline cannot be easily met (threat).

While opportunities for academic collaborations and remote conferencing may be a welcome challenge, the proposed budget reductions and reduced student attendance numbers at the university are considered as threats that must be effectively addressed. Due to the current budgetary shortfall and low staffing rates already in existence in Greece, it is imperative that innovative and novel opportunities for the university's PETE programme are used to sustain the quality of pre-service teachers. School placement and clinical experiences, as examples, need to be safeguarded, in order to protect the strong student learning and their accompanying levels of study satisfaction long-term. As such, the University's PETE programme will need to create meaningful e-practicum resources, within which interactivity, relatedness and professional learning are sustained as opportunities. As with other university departments across Greece, the PETE programme at the University is currently putting great effort into meeting the challenges of delivering high-quality education for the 2020–21 academic year. It is hoped that the suggested adaptations and opportunities, as guided by the SWOT analysis, will bring positive change for PETE, resulting in sustainable educational policy and research-oriented practice.

Ireland

The case-study from the Irish PETE programme has been significantly impacted by the COVID-19 pandemic, due to the University's physical distancing policy (weakness), which led to the closure of all infrastructures. SWOT data analysis findings from staff confirm that digital tools and online learning platforms provide a novel way for meaningful opportunistic pedagogical delivery. Currently, the University is delivering web-enhanced professional development and remote teaching skill seminars for improving digital literacy amongst staff and students, promoting an enhanced sense of belonging through digital environment opportunities.

Distance learning policies and IT guidelines will continue to emerge in the pursuit of maximising student learning experiences through teaching and learning improvements. Conversely, at the university, and specifically at the PETE programme level, technological integration requires significant effort, time and training to deliver meaningful online learning (threat). The current student-to-staff ratio of the PETE programme is exceptionally high and identified as a weakness, resulting in the employment of many part-time and fixed-term tutors who are not in receipt of the same opportunities for professional development. Additionally, this ratio might threaten Teaching Council Re-Accreditation for the PETE Programme, a process which has been in preparation during the current academic year.

In Ireland, distance learning poses threats for incoming first-year PETE students who have already faced considerable disruption in the end of their secondary education, potentially impacting the programme recruitment. School placement and practical learning modules in the PETE programme will be impacted, and the proposed alternatives are aimed at capturing the authentic experience of PE teaching as an opportunity. One of the main strengths that emerged through this COVID-19 pandemic for the Irish institution was the inception of cross-institution PETE cooperation between sport pedagogues.

Even though there is a steady range of university support at the University, the PETE programme's budget may be threatened financially (e.g. decline within international student recruitment etc.).

Portugal

The SWOT analysis for the Portuguese PETE programme highlighted that technology upskilling was an existing strategic goal prior to the COVID-19 pandemic for staff and students at the University. More recently, during the COVID-19 pandemic, the teaching staff became familiar with the use of other online platforms in a strong capacity, such as Zoom for professional, research and pedagogical purposes. Importantly, a specially allocated staff team for PETE at department level have been commissioned to plan for the next academic year, with the potential opportunities of digital resources at the fulcrum of decision making. Nevertheless, the rapid changes related to the COVID-19 pandemic were perceived as stressful and threatening to PETE, with the quality and efficacy of teaching and learning under scrutiny.

Weaknesses identified across the PETE programme related to staff technological skill readiness, limited physical access to the practicum resources (e.g. didactics preparation), as well as minimal engagement with the established PE research initiatives at Master's and Doctoral level. Other major weaknesses identified for the PETE programme relate to the possibility of learning opportunities being lost within the practical subjects, and within the school placement experience. From a PETE student perspective, it is important to acknowledge that all individual learners may not have the necessary equipment to participate in online teaching, and those who are new to the faculty might not fully experience the unique culture of physically studying on the programme (threat).

This COVID-19 pandemic, however, has also brought opportunities, such as students improving their hours of autonomous work and engagement with the allocated distance learning methodologies (e.g. problem-based learning), and the reduction in personal costs associated with the pedagogical and administrative tasks of the PETE programme. The reduction of the face-to-face activity costs, however, impacts the quality of students learning. The implementation of distance learning for future online PE teachers is in direct combat the actual reality and contextual circumstances of the profession. Several problems as threats may also arise at the University in terms of student and staff mental health; such examples include the excessive working hours being undertaken by staff to respond to this new reality, matched with a potential lack of student motivation from the online learning scenarios.

Discussion

The findings will be discussed according to the SWOT components, relative to the themes generated through the multiple-case analysis. For each SWOT component, the three dimensions under analysis (PETE programme, staff and students) will be addressed through the critical identification of the most common themes, i.e. the ones that ran across all or most PETE programmes.

Strengths

Across the three dimensions of data analysis (Programme, Staff, Students), the PETE programme garnered the most common strengths, suggesting that this domain is the most effective leveraging dimension in the transition for the coming academic year. There

were four strengths identified at the PETE programme level: *externally located strength, external links, institutional strengths*, and *programme-specific strengths*, reflecting diverse 'grand challenges' for PE and PETE (MacPhail and Lawson 2020). Specifically, England, Finland and Ireland referred to the status of PE as an educational subject of important strength, against what is recurrently represented as a 'grand challenge' (MacPhail and Lawson 2020). For those PETE programmes, this strength is reflected by the consistent high-demand for programme places among students, and some curricular changes of PE, along with the good standing of ITE and the teaching profession in the national contexts, which is essential for a positive socialisation of the profession (Richards et al. 2020; Lawson 1983b). Particularly related to the COVID-19 situation, PE is being internationally advocated as a critical face-to-face experience for students (EUPEA 2020), which can be explored by the programmes to improve and update the quality of the provision to their pre-service teachers. Interestingly, all programmes referred to the *programme-specific strengths*, in how the professional qualification of the programme was an important strength, underlined by the school placement experience (all partners) and the programme curriculum (all partners), which consists of a balanced range of learning opportunities, including experiential and ICT components, despite the need for a better articulation of the online environment (Dyment and Downing 2020; Cohen et al. 2020). Following Allen and Seaman (2013) classification, the five programmes could be classified as web-facilitated (1–29% online), with clear potential to transition to a blended/hybrid model (30–79% online). The identification of successful experiences using online environments (Cohen et al. 2020) and principles (Goad and Jones 2017) could address current shortcomings, with the experiential component of online (PE)TE (Moorhouse 2020; Dyment and Downing 2020; Williams 2013). Observing the recent teacher education synchronous content delivery approach employed by Moorhouse (2020), the use of small group discussions ('breakout rooms') with the supporting video conferencing software (VCS) resulted in more efficacious-structured teaching and larger numbers of online student engagement. Such strategies in a synchronous teaching capacity could improve teacher educator's ability to deliver more meaningful episodes of experiential student learning within the subject of PE. Common to all programmes in the current study, both the *external links* (e.g. international networks, school placement network and community links, national PETE networks) and *institutional strengths* (e.g. University-wide support to students and staff, online learning management system) highlighted the importance of integrating systemic coherence between the (PE) professionals, researchers, school mentors and teacher educators (MacPhail and Lawson 2020).

With regards to PETE staff, the most noted themes were *collective strengths* (all programmes) and *external links* (Greece, Finland, Ireland and Portugal). Indeed, the programmes identified strong team dynamics, team competence, expertise, and team professional development as important strengths, reflecting the idea that well teachers, promote well students (McCallum and Price 2010). In the wake of the COVID-19 impact, it is essential that the universities support staff in other capacities, beyond the academic component (McCallum and Price 2010). For the PETE students, all cases identified the strength of their *student community* and their *dispositional strengths*, the final being related to a motivation for (PE)TE, as well as to their digital literacy and the online learning management systems. Providing some principles and practices to facilitate the successful and economic provision of online learning in ITE (Cohen et al. 2020), and particularly for

PETE (Williams 2013; Goad and Jones 2017), there are few considerations that support the upkeep of this set of strengths. Institutional and programme-level proactive measures (Zhai and Du 2020; Sahu 2020; Toquero 2020) are particularly critical for the incoming first-year students, having faced an already challenging transition during the end of their secondary education, and this cohort are preparing to embark on another challenging transition to higher education during these uncertain times (Cao et al. 2020; Lee 2020)

Weaknesses

Paradoxically, the SWOT analysis revealed that *pedagogy* was also identified as a weakness for PETE programmes. In the absence of face-to-face learning, institutions raise well-founded concerns for their education principles, specifically the diversity of content lost through the medium of online learning environments. Goad and Jones (2017) observe similar challenges in the context of online PETE courses, yet maintain such issues can be overcome through facilitating creative and active learning experiences, examples of which include guiding and modelling personalised learning, group projects continual adjustments to course resources, facilitating group discussions, student reflection, hands-on modelling, and individual-specific feedback. Lack of *technological support* and *professional development* for the efficacious delivery of online content is determined as a prominent weakness by institutions. Toquero (2020) recently asserted that the potential now exists for universities to innovate their technological infrastructure by scaling up training for educators and upgrading emerging technologies. As noted by PETE pedagogues, however, additional time is necessary for the development of such skills. Upholding the value of *school practicum* and suitable *modes of learning and assessment* in the practical-based learning modules are recognised as a weakness, specifically given that the future of Covid-19-related school closures remains uncertain.

Other research recognises the immense increase of stress among university faculty and students, which may lead to an adverse effect on both student learning and mental health (Sahu 2020). *Staff wellbeing* is a prominent concern among PETE pedagogues, as varying abilities exist to cope with the demands of moving to a digital work culture. In terms of student wellbeing, fostering a sense of *student community* is expressed as crucial. In the transition to online PETE learning, instructor and student interactions can be mitigated through video, online interactions, evaluation and mentoring tactics (Goad and Jones 2017). Experts, however, warn that when it comes to student wellbeing, institutions ought to avoid a reactive approach and instead adopt a proactive approach to maintain connections, and assist students through their academic concerns caused by the disruption (Symonds 2020; Zhai and Du 2020).

Opportunities

The SWOT analysis exercise revealed some opportunistic themes for PETE in the 2020–21 academic year at the programme, staff and student level. *Diversity in pedagogy* was identified as an opportunity, and a consistent theme for all five institutions across PETE programmes in 2020–21. This pedagogical diversification finding in PETE aligns to most recent research by Huang et al. (2020), who outlined the necessity of effective instructional methods for the delivery of flexible online teaching and learning in China during

COVID-19. While it seems likely across the identified European PETE settings that *'Pedagogies'* will positively diversify, the availability of *Virtual Learning Environments* (VLEs) (Jowsey et al. 2020; Ng and Or 2020) in higher education were also connected to digital infrastructure opportunities across institutions. The OECD (2014) 'Education at a Glance' document has outlined that *teaching practicum and pedagogical studies* are critical features of quality within ITE programmes, and it was encouraging to observe that all institution partners in the current study identified the opportunities associated with safeguarding such programme-related content in 2020–21. Through a combination of asynchronous and synchronous modes of instruction (Moorhouse 2020), PETE staff in Europe can continue to avail and implement active learning strategies as an enabler to reflect authentic assessment practices for students. It is clear from the majority of institutions within the current European case study, that meaningful l*earning experiences* for PETE students can be delivered upon in 2020–21, specifically to assist university students overcome the challenges associated with the COVID-19 pandemic's interruption (Sahu 2020).

Threats

As partly expected, many threats emerged during the SWOT analysis. It was found that the *PETE curriculum and delivery* might be affected due to the current pandemic. The uncertainty that exists around the new University norms, the production and deliverance of engaging materials, the poor academic preparation and the overall sustainability of PETE programmes are some of the main threats that almost all partners identified. These challenges, coupled with *school placement issues, minimisation of the practical modules* and the general *vocationalisation* of PE and PETE programmes, pose a serious threat over the core PE principles. As stated by EUPEA (2020), face-to-face PE lessons are the only methodology for learning physical activities, and for maintaining control and quality of the overall teaching and learning experience. Furthermore, *technological support limitations* and *digitaliness* comprises of many challenges for teachers, teacher educators and policy makers. The current situation makes evident inequalities in access to education, however, it also entails of opportunities to reshape education, teacher education and educational institutions (Flores 2020). If research, practice and policy fail to connect in a sound understanding about online ITE, it is likely that the staff and student overall experience may be severely damaged (Dyment and Downing 2020). General education *cost reductions* might lead to staff redundancies, lower students' enrolment, poorer retention levels, and higher dropout rates. The economic downturn has the possibility of forcing thousands of youngsters to defer entering University and in the absence of substantial financial support, which will threaten the global university network in terms of pandemic survival (Burki 2020). Finally, one important threat that was identified by one partner was *the reduction of the main PE aims towards the physical health and health-related learning outcomes* only. This is in line with previous research (Adamakis and Dania 2019), and this notion should be challenged all costs.

Conclusions

By identifying the thematic variables for PETE at an overall programme, staff and student level, the empirical SWOT analysis heightened PETE teacher educators understanding of

the subject beyond 'physical' contact spaces, for meaningful third-level teacher education delivery. In teacher education, the experiential nature of some subjects (such as PE) continue to be critiqued and evaluated. This novel approach to a SWOT analysis serves as an effective platform for teacher educators to identify alternative strategies for meaningful educational experiences in the wake of COVID-19 for third-level education settings. Such alternative strategies seeking to maintain the experiential nature of PETE during COVID-19 may include examples such as; student-led sport psychology assessments online, virtual learning 'field trips' for physical activity and health-related content, and online breakout rooms for students to discuss gymnastics based pedagogical content.

Despite the varying nature of ideological reforms and/or economic/political circumstances in each country, the SWOT analysis proved that collective and accelerated action is needed at all levels to promote the quality of PETE programmes, and to sustain these through the experiential nature. Far from market-driven initiatives, staff competencies and wellbeing (both academic and personal) need to be set in the foreground, for educational change to be perceived as pedagogically relevant and professionally non-threatening. This study showcases how international teacher educators within the subject of PE can collaborate in a time of global public health crisis, and transparently share their intended approaches for optimal teacher education delivery during the 2020–21 academic year. By remaining mindful to national/international PE practices, realities and challenges, future research should advocate for the establishment and support of professional networks within which practitioners, scholars and policy makers will co-create understandings of how to best safeguard their country's PETE programme cohesion, while experimenting with alternative modes for its delivery.

While the findings of this study will certainly assist teacher educators in preparing for their respective academic modes of delivery in 2020–21, some limitations are noted. This study involved twelve PETE academics from five participating countries, and while the sample size is commendable in terms of understanding European teacher education readiness for PE in 2020–21, the results of these findings cannot be generalised across PETE. The SWOT analysis was a very useful exercise to elicit academic viewpoints at the staff, student and programme level, however, the subjective nature of the exercise is of course susceptible to factual inaccuracies and participant subjectivity. Nevertheless, the robust data analysis procedures employed in this study were a valid means of deriving such rich qualitative data from each country. Furthermore, a natural limitation of this study was the cross-sectional research design of the data collection exercise. All results derived from this SWOT analysis are based on the future rollout of the 2020–21 academic year, and for these reasons, the unpredictability of the circumstances to follow with COVID-19 may impact the intended direction of the findings. The authors of this study recommend a follow-up piece of research in approximately 12-months' time, as part of a longitudinal data gathering exercise for PETE and teacher education in general. The inclusion of additional countries and participants involved in PETE at a European level may also heighten the representativeness of the current findings observed.

Teacher education has the potential to evolve to more positive and dynamic states of academic delivery through international dialogue. Teacher educators face some uncertainty with regards the current COVID-19 pandemic, however, findings

from this study have demonstrated that teacher educators in PE are willing to undertake this journey through international networking and the establishment of meaningful communities of practice. In summary, the following five take-home messages are raised:

(1) Across all five countries, each partner realises the necessity to embrace the use of online technologies for PETE in 2020–21, however, the practicum 'face-to-face' experiences of PE as a subject are essential.
(2) There is a general trepidation from all partners about the forthcoming 'student experience' for learners in PETE, most notably, the potential absence of 'physical' contact with academic staff.
(3) Given the dynamic range of staffing across each respective PETE programme, it is accepted from all partners that not all academic staff (full-time or part-time) are up-to-speed with the provision of course material through online or hybrid methodologies.
(4) Across all five countries, institutional support for meaningful PETE delivery at HE is of critical importance in 2020–21.
(5) Finding novel methodologies to meaningfully engage students within online learning for PETE is an important consideration to acknowledge, as the field of PETE navigates its way through unchartered territories.

Disclosure statement

No potential conflict of interest was reported by the authors.

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