



Initial Post-Primary Physical Education Teacher Education: A Comparative Exploration across European Countries

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Abstract: This study documents and explores the patterns that arise across twenty-five European post-primary initial physical education teacher education (PETE) programmes. The selection process to the PETE programmes appears to revolve around three instances; (i) entry requirements administered by the programme / institute in which the programme belongs, (ii) school grades, and (iii) sport performance. Three curriculum-related areas evident across all countries were content knowledge (also referred to as 'scientific discipline'), pedagogical content knowledge (PCK) (also referred to as 'educational sciences' and 'didactics') and school placements (also referred to as 'teaching placement' and 'school internship'). 'Standards' and 'accreditation' were two phrases used (sometimes interchangeably) by countries to convey what individuals needed to demonstrate to be considered as a graduate from the PETE programme. Different requirements for graduation are evident across countries. Different countries noted a range of expected attributes that individuals would possess on graduating from PETE programmes. The demographics of each country, the support for teachers and teacher education, those choosing to enter teacher education and the biographies and experience of those delivering PETE programmes are some of the important nuances that need to be considered in accurately capturing the enactment of PETE in each respective country.

Keywords: Physical Education Teacher Education; Europe; Selection

1. INTRODUCTION

Physical education is a mandatory subject in schools in most European countries [1] [2]. School-based physical education is deemed to be effective for increasing accessibility to physical activities, increasing levels of physical activity, as well as helping young people gain sport skills necessary for continued involvement in being physically active [3]. The International Association for Physical Education in Higher Education (AIESEP) Physical Education Teacher Education (PETE) Statement (2014) [4] defines quality physical education, at any level, as that which concerns the physical, affective, social and cognitive development of young people, exposing them to positive individual and collective learning experiences where they develop knowledge, skills and dispositions that allow them to be informed and responsible decision makers relative to engagement in physical activity and sport in their lives.

To maximize learning opportunities in physical education, a range of conditions needs to be met. One of these conditions is qualified physical education teachers. Quality physical education is strictly linked to physical education teachers' qualification and the phase of initial teacher education plays a key-role both for future teachers' acquisition of teaching skills and for the development of behaviours, attitudes and value orientation. The EU Commission [3] stated that the relation between the education sector and physical activity has different aspects and physical educators are one of the main aspects of this relation. AIESEP [4] supports this notion, believing that quality PETE programmes are those where graduate teachers are lifelong learners who possess a deep knowledge of the subject area and a set of reflective, pedagogical and didactic skills and professional dispositions that allow them to design and deliver quality physical education programmes for all students. Graduates should be ethical, caring, critical, innovative, reflective, collaborative and communicative professionals who advocate for students and quality physical education. Subsequently, prospective physical education

teachers need to go through important processes as they train to become a qualified teacher of physical education.

Despite the central role ascribed to teachers' preparation [4] and the European Parliament call for a policy priority as "an urgent need to review systems of PETE with due regard to improvements in both initial and continuing education of PE teachers, especially those responsible for PE in primary schools" (p. 67) [5], to date there are no comparative reference points on PETE programme practices in Europe, nor evidence for best, effective practices.

This situation is not new. Twenty years ago, Hardman [6] reported that physical education in Europe was marked by "mixed messages" and that across Europe the quality of teacher preparation for physical education was variable, with pedagogical and didactical inequalities within countries. More recently, the European Parliamentary Research Service [5], in addition to the Eurydice report [7], described the situation in relation to physical education teachers' qualifications. The reports stated that at primary level, physical education was taught either by generalist teachers (e.g., in Austria, Croatia and Italy), by specialist teachers (e.g., in Belgium, Spain and Turkey) or by both generalist and specialist depending on a school's autonomy and resources (e.g., in Poland and Portugal). In most European countries in which physical education specialists teach at primary level, the reported minimum qualification required was a Bachelor's degree. At post-primary level, physical education teachers were usually physical education specialists. In approximately half of the countries, physical education teachers in post-primary education had a Master's degree. No information was provided on methodologies and philosophies underlining PETE, the content or organization of PETE programmes in the different countries.

2. LITERATURE REVIEW

In the last two decades, several European studies investigated methodological approaches and the content of specific PETE programmes, adopting different cultural perspectives and research designs. Carney and Guthrie [8] surveyed the quantity and quality of physical education in initial teacher training primary programmes in Scotland. Rolfe [9] studied English primary pre-service teachers' confidence in teaching dance, providing suggestions about the design of teacher education programmes. The development of subject knowledge and influences on the development of such subject knowledge in three pre-service teachers at the end of their postgraduate certificate in education was investigated in England by Gower and Capel [10], who recommended that teacher educators should work more closely with colleagues teaching sports-related undergraduate degree programmes. Van Berlo [11] reported the results of a case study aimed at studying the beliefs of an English physical education coordinator on primary physical education initial teacher training. The pre-service primary teachers' understandings of the nature and purpose of physical education was investigated by Chróinín and Coulter [12]. They reported that, while at the beginning of the programme Irish pre-service teachers' responses were dominated by sport and health discourses, at the end of the programme the emphasis was on equality of opportunity. Positive benefits on reflective abilities and practice derived by training buddies and from sharing feedback (i.e., the creation of collaborative spaces) was reported in a study conducted in England by Lamb, Lane and Aldous [13]. Derria, Papamitroua, Vernadakisa, Koufoua and Zetou [14] examined the effect of a biannual practicum course on Greek pre-service physical education teachers' ability to design lesson plans for elementary school students, concluding that the practicum course helped pre-service teachers' learning in creating more effective lesson plans. Finally, Gil-Gómez, Chiva-Bartoll and Martí-Puig [15] analysed the impact of service learning with children with special education needs in Spanish students, arguing that significant academic and personal learning in areas useful for future teachers were possible through this activity.

All the above-cited studies focused on specific settings and curricula and a comparative perspective is missing from the literature. There is therefore a need to study the transnational practices that occur in and across PETE programmes to explore and share good practices as programmes strive to prepare effective physical education teachers [4]. The identification and sharing of practices will allow readers to consider the extent to which such practices could improve, or complement, the quality of their current PETE programmes. That is, in exploring the infrastructure and associated practices of PETE programmes across Europe, in what ways can the (innovative) practices of PETE programmes be strengthened to heighten the experience and preparation of future physical education teachers?

3. INITIAL TEACHER EDUCATION

The continuum of teacher education can be described as *“the formal and informal educational and developmental activities in which teachers engage, as life-long learners, during their teaching career. It encompasses initial teacher education, induction, early and continuing professional development and, indeed, late career support”* (p.5) [16]. The focus of this paper is on initial teacher education where those wishing to become qualified as a teacher undertake a specific programme of study that is a recognized teacher education programme provided by a higher education institution / university.

It is common for teacher education programmes to include three elements, commonly referred to as foundation studies, professional studies and school placement. Foundation studies introduce pre-service teachers to the practices of teaching, learning and assessment and the professional context of teaching. Professional studies include subject pedagogies (methodologies) and curriculum studies, as well as opportunities to develop pedagogical practices. School placement is an opportunity for pre-service teachers to spend an extended time teaching in a school context, being mentored / supervised by a qualified teacher in the school.

Teacher education programmes can be concurrent or consecutive programmes for primary and post-primary teaching. Concurrent programmes tend to be a minimum of four years while consecutive programmes vary between a one- and two-year duration. Concurrent programmes are those which allow students to study their specialized subject area (alongside educational studies), with a teacher education focus from the very beginning of the programme. Consecutive programmes are those which allow students who have completed years of study, or completed a previous programme of study, to access a teacher education intensive programme for one or two years where there is a specific focus on a subject area (alongside educational studies). For those completing programmes for teaching in primary schools, physical education is just one of many subject areas the pre-service teacher needs to be able to teach. For those completing programmes for teaching post-primary physical education, the main focus tends to be on the physical education subject. Some of these programmes also qualify graduates to teach physical education in primary schools, if it is an accepted practice of the particular country to have physical education specialists teaching in primary schools.

Selection procedures to teacher education programmes differ across countries and there is a continuing interest in discourse surrounding the entry to teacher education programmes of under-represented groups in a bid to address the somewhat homogeneous group of graduates from teacher education programmes [17].

4. METHODOLOGY

4.1. Context

This study is part of an Erasmus⁺ project titled ‘Identifying best practice across physical education teacher education programmes: A European perspective’ funded by the European Union. During the three-year project, the PETE systems (initial, induction and in-service) of Erasmus⁺ programme countries were examined. Invited experts from each of the programme countries were invited to present their respective initial, induction and in-service PETE systems. This study documents and explores the patterns that arise across European post-primary initial PETE programmes.

4.2. Participant Selection

Participant PETE experts were selected among 33 Erasmus⁺ programme countries (ec.europa.eu). Non-probability purposive sampling was used in the selection of participants to directly reach the appropriate individuals involved in PETE. Potential invitees were identified as individuals who were involved in studying PETE practices in their respective countries. Convenience sampling was used to identify those who were easily accessible and willing to participate in a meeting [18] [19]. Twenty-five Erasmus+ programme countries (Austria, Belgium, Bulgaria, Czech Republic, Croatia, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Netherlands, Norway, Poland, Portugal, Slovenia, Slovakia, Spain, Sweden, Turkey and UK (Scotland & England)) joined the meetings to present their PETE systems.

4.3. Data Collection

Data was collected by asking individuals to address a list of questions in a PowerPoint template. The list of questions related to initial PETE are noted in Table 1. The questions and a template PowerPoint

were emailed to invited experts at least two months before the meeting and the experts were asked to prepare an oral presentation to last for 90 minutes including a question-answer session. During the meetings oral presentations were recorded, with the permission of experts, to be transcribed to allow the researchers to categorise responses aligned with the questions listed in Table 1. Experts were encouraged to add any additional information that may be interesting to international colleagues.

Table1. *Questions related to initial PETE*

<ul style="list-style-type: none">a) What are the entrance requirements for PETE students at primary and post-primary levels?b) Please describe the selection process (e.g., exam system - central exam, aptitude tests; movement tests; interview; sporting background).c) Please briefly describe the curriculum of initial PETE at primary and post-primary levels?d) Please describe how this PETE content breaks down with regard to (i) content knowledge, (ii) pedagogical content knowledge and (iii) teaching practice/school placement.e) Please detail the weighting of ECTS with regard to (i) content knowledge, (ii) pedagogical content knowledge and (iii) teaching practice/school placement.f) Please give details (process, evaluation, content, appointment of advisors etc.) about teaching practice/school placement at primary and post-primary levels.g) Please explain who determines the content of initial PETE and what influences such decisions.h) What are the main pedagogical practices used? Is there evidence of main pedagogical philosophies and associated practices used in and across programmes, e.g., model-based practice, reflective practice?i) Are the initial PETE programmes at primary and post-primary levels accredited? By whom/which institution? What are the requirements of this process?j) What graduation requirements are PETE students expected to have such as course credits, teaching practice, exit test etc.? Is there a graduate work to be completed?k) What graduate attributes are PETE graduates expected to have at primary and post-primary levels?

4.4. Data Analysis

Data was analysed relying on the constant comparative method [20] by using open coding technique. Open coding involved revisiting the presentations and defining and developing categories, somewhat dependent on the questions asked to participant PETE experts. All presentations were coded and thematically analysed by two authors. Data triangulation was completed across the recordings of the presentations, the respective question-answer sessions in the meetings and draft chapters written for a collective publication.

5. RESULTS

It is important to remember that the data attempts to convey the most prevalent situation in each country while acknowledging that there may be nuances of processes and practices dependent on individual institutes. It is also not possible to convey on whether specific practices in one country are superior to that of other countries given that demographic characteristics and economic conditions can vary significantly. A commonality that did arise across countries was that post-primary undergraduate programmes were four-years in duration and subsequently constituted 240 ECTS.

5.1. Selection process of PETE programmes

The selection process to the PETE programmes appears to revolve around three instances; (i) entry requirements administered by the programme / institute in which the programme belongs, (ii) school grades, and (iii) sport performance.

Entry requirements to PETE programmes administered by the different countries include online self-assessments, written entrance exams, physical performance interviews to establish motor ability and skills, conveying a level of proficiency in their native language, presentation of portfolios and face-to-face spoken interviews. Online assessments and written entrance exams constituted general knowledge around the physical education subject area. Motor ability and skills physical interviews were most prevalent across the countries and were more evident in Eastern European countries. Activities included in physical interviews appeared to focus on students' performance in specific sporting activities (such as athletics, games, gymnastics and swimming) and / or more discrete physical fitness type activities (such as pull-ups and press-ups). Some countries conducted national language maturity exams (e.g., Lithuania) or national and foreign language exams (e.g., Latvia).

The grades that students had achieved on graduating from school, or the specific qualification they had been awarded were, as one would expect, a frequent requirement across countries.

Some countries made a conscious effort to attract, and accommodate, students who can evidence their high performance in sport. There was an admittance in some countries that such individuals are enrolled directly into a programme without taking standardized selection processes (e.g., Croatia).

5.2. PETE Programme Curriculum

Three curriculum-related areas evident across all countries were content knowledge (also referred to as ‘scientific discipline’), pedagogical content knowledge (PCK) (also referred to as ‘educational sciences’ and ‘didactics’) and school placements (also referred to as ‘teaching placement’ and ‘school internship’).

Content knowledge appeared to focus predominantly on students being exposed to content that was most popularly referred to as ‘sport sciences’. This included improving their performance in specific sports, exposing them to the benefit of physical activity and the effects of training the body, encouraging them to consider how the body moves as well as engaging with more ‘theoretical’ subjects such as philosophy and sociology. Some countries also noted that students accessed more general education content in modules provided outside of PETE (e.g., Ireland) and / or could choose elective subjects (e.g., Bulgaria, Slovenia).

There appeared to more discrepancy in how countries chose to report the prevalence of PCK in their respective programmes (Table 5). Some countries conveyed that PCK was delivered through physical education theory and pedagogy modules (e.g., Bulgaria, Croatia, France), qualifying that this resulted in pre-service teachers learning how to apply the theory they had learned previously in another module to practice as a teacher of physical education. This was captured by other countries (e.g., Germany, Lithuania, Luxembourg) under the term ‘didactics’. Other countries appeared to defer to core educational modules (e.g., Austria, Belgium, Malta) as a source of PCK.

While school placement was an element of all PETE programmes across all countries, the provision of school placement varied considerably across countries. Some countries noted minimal blocks of time (i.e., weeks) spent in schools (e.g., Czech Republic), a considerable amount of time spent in schools (e.g., England, Ireland) or a model where student spent part of each week in a school while returning to the PETE institute for the remainder of the week (e.g., France). Instances where students complete a school placement during every year of their programme (e.g., Netherlands, Scotland) as well as school placement being undertaken for the duration of a school year (e.g., Slovakia).

5.3. Standards and Accreditation of PETE Programmes

‘Standards’ and ‘accreditation’ were two phrases used (sometimes interchangeably) by countries to convey what individuals needed to demonstrate to be considered as a graduate from the PETE programme. Institutions set the standards for teacher education in Belgium, Germany, Ireland, Latvia and Netherlands. Government-oriented accreditation bodies were involved in programme accreditation in Belgium, Bulgaria, Czech Republic, France, Poland, Portugal and Slovakia. For example, initial teacher education in France is controlled through a double accreditation system involving the universities and the Ministry of National Education. Accreditation requirements that include, (1) quality of educational activities and training processes (i.e., teaching methods, textbooks, learning programmes and curricula, teaching staff), (2) scientific and research activity (e.g., scientific forums), (3) international relations and European integration, (4) appropriate facilities (e.g., buildings, halls and sport facilities), and (5) contribution to social policy.

5.4. Specific Programme Requirements for Graduation

Although most countries request 240 ECTS programmes for graduation, different requirements for graduation are evident across countries. Although all countries noted school placement as a component of PETE programmes, specific countries noted it was essential to successfully complete school placement to graduate. Completion of an action research project or a final piece of written work (e.g., thesis or dissertation) were requirements in other countries. A final ‘exit’ exam was less prevalent across the countries.

5.5. Expected Attributes of Graduates

Different countries noted a range of expected attributes that individuals would possess on graduating from PETE programmes.

While PETE graduates were referred to as ‘physical education teachers’ across all countries, there was evidence that the collective attributes would allow them to work in various contexts. While most countries expected graduates would teach in schools, some countries noted there was a need for physical education teachers in other sectors such as sports or recreation clubs (Belgium, Netherlands). Some countries (Bulgaria, Greece, Turkey) noted that graduates have limited career opportunities as a physical education teacher and specific countries (Belgium, Bulgaria, Greece, Lithuania, Malta, Netherlands, Norway, Slovakia, Spain and Turkey) noted that graduates can get a job in sport-related industries (e.g., coach or fitness instructor in private gyms). In addition to delivering the school physical education curriculum, some countries (Croatia and Slovakia) noted specifically that graduates would be expected to manage sporting activities and sport training programmes in schools, and in Croatia to organise and lead leisure-time sporting activities for adults. It was also evident that in some countries (Austria, Czech Republic and Ireland) physical education teacher graduates were also responsible for teaching a second subject (e.g., math, science, history) in addition to physical education.

6. DISCUSSION

It has proved difficult to conduct a definitive comparison across countries that have different first languages and therefore commonly-used and understood concepts in one country may not have the same specific meaning when translated, e.g., ‘didactics’ and ‘pedagogy’. It is also interesting to note that while European Credit Transfer and Accumulation System (ECTS) credits are a standard means for comparing the volume of learning based on the defined learning outcomes and their associated workload for higher education across the European Union and other collaborating European countries, it was evident that there were significant discrepancies across countries on how such credits were calculated.

One observation that appeared to be consistent was the preference for more performance- and fitness-orientated entrance requirements to PETE programmes from Eastern-European countries (i.e., Austria, Bulgaria, Croatia, Czech Republic, Greece, Latvia, Macedonia, Poland, Slovakia, Slovenia). It was difficult to comment however on whether such preferences for entrance resulted in programmes focussed more on performance and fitness discourses and activities.

Another observation that was consistent was the elements from which PETE programmes were derived. That is, most countries reported PETE programmes including opportunities to study content knowledge, pedagogical content knowledge, general educational studies and experience school placement. While there was some consensus on the elements across countries, it was more difficult to access information on the implementation of each. Who was responsible for overseeing the respective elements, where the elements resided in PETE programmes and the amount of time that was allocated to each element varied across countries. There also appeared to be some discrepancy across countries on the necessity to successfully complete school placement to graduate from the programme of study.

While some form of standards was common in most countries it was not clear to what extent those working on PETE programmes were conscious of delivering their respective programmes to ensure such standards were collectively achieved. It was also difficult to gain a sense of the extent to which PETE programmes were actively involved in the accreditation processes for their respective country.

The reported expected attributes of graduates position them to have a wide skill-set that allows them to work in a variety of contexts in addition to teaching school physical education. This was specifically important for a variety of countries that noted physical education graduates were unlikely to secure a job teaching.

Given that the study was funded by the Erasmus+ programme that provides opportunities for students to undertake study in other countries, it is interesting to note across the countries that there was a lack of engagement in considering such opportunities. It was evident that graduates in some countries could work across different countries (Ireland, Luxembourg) while others could not, and proficiency of language was shared as a constraining factor in limited opportunities. This is interesting when the enactment of the European Qualifications Framework intended to promote workers’ and learners’ mobility between countries by providing a way in which to relate different countries’ national qualifications systems to a common European reference framework.

7. CONCLUSION

This study has raised challenges in setting out to compare PETE across European countries. Rather than focus on such comparisons, previous research has tended to focus on exploring the generalist and specialist teacher in the teaching of primary school physical education and any differences in primary teacher graduate level of qualification (Bachelor or Master's). Research exploring post-primary PETE tends to focus on the philosophies and practices of individual programmes.

It is perhaps not surprising to encounter challenges when attempting to conduct a country comparison of post-primary PETE across Europe. The demographics of each country, the support for teachers and teacher education, those choosing to enter teacher education and the biographies and experience of those delivering PETE programmes are just some of the important nuances that need to be considered in accurately capturing the enactment of PETE in each respective country. This is best achieved by capturing such nuances through in-depth interviews with those who are best positioned to comment on the national picture of PETE provision.

That is not to say there is no value in considering comparisons across PETE provision in different countries. Such comparisons can educate policy makers and teacher educators on philosophies, methodologies and practices that may be worth considering in their own jurisdiction. Comparative work also allows the PETE community to begin to identify and address common challenges that need to be addressed (potentially collectively) to heighten the effectiveness of PETE, as a shared professional community, across Europe.

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