

# Thema

## Editorial

### The education and continuing professional development of physical education teachers – structures, challenges and current research tendencies

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Since the Bologna reform in the 1990s, higher education institutions have been standardised and teacher education harmonised (State Secretariat for Education, Research and Innovation, 2021a). In Switzerland, the Higher Education Promotion and Coordination Act (HEdA) formally established three types of higher education institution: universities, universities of applied sciences and universities of teacher education (UTE) (Federal Assembly of the Swiss Confederation, 2011), the latter being the newest type. UTEs are responsible for the education and continuing professional development of teachers, research and development, and services in the field of teacher education (State Secretariat for Education, Research and Innovation, 2021b). Another role of UTEs is to offer evidence-based education and continuing professional development and to work closely with professionals in the field (Graf, 2018). The first aim is to train physical education (PE) teachers and develop the qualities necessary for good and effective (i.e. successful) PE teaching. Its other objectives are to design effective training and development, and to research the impact of this training (Baumgartner, 2017). This requires lecturers to have additional competence in the area of PE and sport (Baumgartner, 2022; Hayoz, 2023; Tettenborn & Tremp, 2020).

The academisation of sports science institutes at Swiss universities, at the beginning of the 21<sup>st</sup> century, occurred later than other sciences (Quin, 2016). For this reason, sports science, and by extension research into sports didactics can be described as a “young” science in Switzerland. In the 1980s and 1990s, most graduate PE teachers were trained in sports practice in teacher education and continuing professional development programmes. Since the Bologna reform, Bachelor’s and Master’s degree programmes in sports science have been offered throughout Switzerland (Schlesinger et al., 2015). At the national level, there is less conceptual or empirical research in the field of sports didactics compared to other scientific disciplines. Within sports didactics, the research is also largely limited to its own linguistic and cultural area (Gogoll, 2018). In Switzerland especially, given its tradition of national teaching materials going back over a hundred years (Quin & Hayoz, 2021), it is surprising that there is not more cross-linguistic research in the field of PE. Although there has been an increase in the number of research contributions and larger sport science research projects (e.g. Swiss National Science Foundation (SNSF), Swissuniversities) - such as LELEPS, the interinstitutional and bilingual project which aims to develop the didactical basics of PE (Hayoz et al., 2021), or PROJEPS, the first cross-curricular project in Switzerland - the situation concerning the quantity of available data in various subject areas (e.g. effectiveness of education and continuing professional development of PE teachers, competences of PE lecturers and teachers, effectiveness of PE) can be described as narrow. In the subject areas that are currently at the forefront (e.g. digital transformation, diversity-specific issues, development of future skills in schools), further research efforts would be beneficial.

The aim of this special issue is to examine and discuss the structures, challenges and current research trends in the education and continuing professional development of PE teachers in UTE from different language regions in Switzerland and beyond using scientific contributions. The special issue is organised as follows:

First, the institutional structures of education and continuing professional development of PE teachers are explored. The macro-level contribution by **Quin** introduces the history of PE teacher education and gives an insight into the legal and institutional structures of their training programmes.

In the second contribution, **Lenzen** describes the traditions at the University of Geneva in the education and continuing professional development of PE teachers at primary and secondary school level.

In recent years, there have been a number of studies into teachers’ professional competences in Switzerland. They have produced interesting findings, for example in the contributions of Baumgartner (2017) on the improvement of feedback in the classroom, Ferrari et al. (2022) on diagnostic competences, Vogler (2020) on professional decisions, Messmer et al. (2022) on the knowledge and skills of teachers and learners, and Büchel et al. (2022) on professional knowledge in relation to motivation and beliefs. These studies lead to a deeper

investigation of the professional competences necessary to physical education teachers, which are presented later in the issue.

**Wittwer and Messmer** explore how subject-specific professional knowledge can empirically be structured for PE teachers. In addition to classic MC tests, video and text vignettes were also used to measure both context-independent and contextualised knowledge of PE teachers.

In the contribution by **Büchel et al.**, a theory-based mediator model is tested, which describes the relationships between domain-specific interest with continuing professional development behaviour and the professional knowledge of PE teachers.

The basis for evaluating the effectiveness of interventions in PE teacher education and continuing professional development requires valid, reliable, and objective instruments, which are largely lacking. In this regard, **Baumgartner et al.** validate the content of test instruments to explore the transformation process from knowledge to performance in PE education based on classroom management.

Since PE can give students health-related competences for adopting a physically active lifestyle, and as PE teachers play an important role in promoting the relevant competences, a heuristic model for health-related professional action competences of PE teachers is developed in the contribution by **Lohmann et al.**

The third part of this issue focuses on quality assurance in the (practical) training of sports teachers, an interdisciplinary topic that has become more relevant in recent years.

The article by **Brière** analyses the processes in developing the professional knowledge of PE trainees in France on the basis of didactic and meta-didactic systems.

**Descoedres'** contribution tries to understand how trainee PE teachers develop through emotionally formative situations. In this regard, it aims to draw a topography of emotionally significant situations from trainee teachers to understand how these situations hinder or enhance their activity's development.

Finally, in the article by **Herrmann et al.**, significant characteristics specific to teaching PE are elaborated and operationalised in a quality assessment instrument (QUALLIS). Based on this validation study, it is discussed how the instrument can be used in the education and continuing professional development of PE teachers in order to evaluate the characteristics of good PE, systematically improving the quality of teaching.

The contributions presented give insight into the current state of research in sports didactics as well as education and continuing professional development of PE teachers. However, it has not been possible to offer a systematic and complete overview of all the research topics in the field due to their breadth and diversity.

It is obvious that the research discourses of the different contributions are similar, but there is next to no crossover between them. Furthermore, there has also been very little cross-linguistic research to date. Thus, the research landscape itself remains extremely heterogeneous and there is enormous potential for further research into sports didactics and PE teacher education, as well as continuing professional development. Given these conditions, it appears that there is a real necessity to promote cross-linguistic evidence-based sports didactics research in order to optimize not just the quality of PE teaching but the education and continuing professional development of PE teachers.

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