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Chapter 3 Shifting Perspectives in Lateral Entrants on Their Way to Become Coequal Teachers

Abstract: Becoming a fully trained teacher in Germany takes about 6.5 years. During that time, a variety of university unit tests, the first state exam and a pre-service teacher training, completed by passing the second state exam, have to be managed. Those regulations are similar in all federal states of Germany, except where there is a teacher shortage.

Keywords: side-entry and lateral entry, physical education, teacher training, professionalisation

1. Introduction

On the one hand, current findings of epidemiologic panel studies deplore children's and adolescents' lack of physical activity (just about 20 percent of girls and boys reach an at least moderate physical activity of 60 minutes a day), a reduced active playing time (less than 25 percent of children and adolescents spend several hours a day playing actively), a rather inactive way to school (just about 40 percent of children and adolescents walk to school on their own or ride a bicycle) and many activities while sitting (about 80 percent of children and adolescents spend more than two hours a day sitting in front of TV or other screens) and the resulting reduced requirements for active participation in sporting contexts (i. a. Demetriou et al., 2019). On the other hand, keeping the current discussions on teacher shortage, including Physical Education teachers, in the Federal Republic of Germany in mind, a significant rise of teaching staff recruitment without the appropriate pedagogical university graduation is being recorded. This also affects the school subject Physical Education, which is supposed to prepare for an active participation in society in games and sports.

With regard to the current discussion about the shortage of teachers in the Federal Republic of Germany and the associated significant increase in new employees in the teaching profession without teacher training-related academic degrees, one would not want to be in the shoes of those responsible for schools, school administration and educational policy. While such teachers were previously rare exceptions predominantly found at progressive schools (Reformschule)

and vocational schools, the minority phenomenon has evidently become a mass phenomenon: “In 2017 almost 13 percent of all new employees in the teaching profession in Germany did not have a teacher training related academic degree, in the Free State of Saxony it was as high as 46.5 percent” (Tillmann, 2019, P. 11). Occasionally, such figures result in critical statements which are primarily aimed at the Ministries of Education of the Federal States: “There is an educational crisis in Berlin and Saxony” (Franz, 2018); “The Federal States have neglected the training of teachers” (GEW, 2017); and “The hushed up shortage of teachers” (FAZ, 2018). In this regard, policy or management failings are frequently cited as a reason. The fact is that in the 1990s political decisions were made which have a lasting effect in teacher training in the whole of Germany up to the present: they include the modularisation or restructuring of the teaching training courses through the introduction of the Bachelor/Master system (Oelkers, 2012) as well as the creation of a closer link between academic and practical training (Cramer, 2014). Characteristic for the new Federal States is the integration of the pedagogical higher education institutions in the universities along with the centralisation efforts of teacher training after 1990. These developments were implemented with the objective of “harmonising teacher training in the Eastern and Western Federal States under the overall aspect of a common democratic constitution, making training content and standards at schools of general education and vocational schools in East and West Germany equivalent, producing equal opportunities and reducing barriers to mobility” (Döbert, 1997, P. 341). It is important to state that since 1990 there have repeatedly been phases in which supply and demand in schools as a sector of the labour market were not harmonised, although the causes are more complex than it seems at first glance. According to Tillmann (2019, P. 13), “the varying intensity of the increase in the number of pupils since 2014, the varying endeavours of the Federal States in the training of teachers, the varying attractiveness of the Federal States as employers (among other aspects pay, civil servant status)” are causal reasons for this. Besides this, there is the varying age distribution of the teachers.

According to the Federal Statistical Office of Germany (2016), the demographic developments after 1990 were characterised by unforeseeable trend reversals, which were reflected in abrupt declines or increases in birth rates, population movements in the direction of the metropolitan regions and the associated lack of training opportunities in the rural regions. In view of relatively rigid capacity calculations for the training of teachers and in part precarious employment conditions of the academic personnel in the teacher training related subjects at German universities and pedagogical higher education institutions (incidentally a university-wide problem), demographic trends – insofar as they

are even taken into consideration (among others Klemm, 2019b) – can only be reacted to in a very lethargic manner. For example, the training duration of primary school teachers, following a three-year Bachelor study, two-year Master's degree study and one and a half years preparatory service (including transitional periods), totals around seven years. The exception to this is Saxony, where the study covers eight semesters/four years (1st state examination) and the preparatory service 1.5 years (2nd state examination). Furthermore, the choice of study of future students is mainly on the situation in the labour market, career and development opportunities and personal preferences. (CHE, 2007; Deutsche Bildung AG, 2017).

In contrast to the public perception, in which lateral entrants are generally regarded problematic, the Association for Teaching Methodology (GFD, 2018, P. 1) sees the difficulty in the lack of concepts which are guided by standards of professional teacher training. Therefore, the Association for Teaching Methodology demands regulated complementary ways of professionalization that can better foster the individual potentials of lateral entrants and assert their qualities in teaching.

A causal reason for the wide debate regarding side-entrants and lateral entrants is the opening of the qualification system for teacher training through the resolution of the Conference of the Ministers of Education and Cultural Affairs (Kultusministerkonferenz (KMK), (2013)) for the organisation of special measures to obtain teachers for the provision of teaching. Without the standards and “Joint agreements of the Federal States for teacher training” passed by the Conference of the Ministers of Education and Cultural Affairs (KMK) being eroded by this (among others Conference of the Ministers of Education and Cultural Affairs (KMK), 2008), “Federal State-specific special measures” (KMK, 2013, P. 2) can be adopted in the event of demand for the provision of teaching. The Conference of the Ministers of Education and Cultural Affairs (KMK) (2013) fundamentally distinguishes between two possible solutions: *On the one hand*, the “qualification via a preparatory service or comparable training” (KMK, 2013, P. 2), for which as a prerequisite a Master's degree from a university or a degree from a higher education institution equal to this must exist, from which at least two teacher training related subjects can be derived. *On the other hand*, “qualification via additional studies and preparatory service or comparable training” (KMK, 2013, P. 2) is possible. The basis for this is, for example, in the Federal State of Saxony a degree, Master's degree, Magister degree or a degree from a higher education institution equal to this (Teacher Qualification Regulation – Lehrer-QualiVO, Article 4 No. 10). A lack of qualifications can be acquired in-service by candidates. In both cases, the respective Federal State establishes an equivalent

certified qualification following successful completion of the preparatory service as well as the (second) state examination. Both solutions reveal the conceptual vagueness which exists in the media and in politics as well as in the Federal States with regard to lateral entrants and side-entrants and the various Federal State-specific measures for the implementation of the Conference of the Ministers of Education and Cultural Affairs (KMK) resolution. According to Klemm (2019a), while lateral entrants complete a traditional probationary period, side-entrants conclude a second phase of training which is comparable with the probationary period. However, these terms are not used uniformly by the Federal States so it is difficult to assign corresponding regulations and measures.

For the school year 2017/18, the statistics of the Conference of the Ministers of Education and Cultural Affairs (KMK) (2018a) for state school service reveal 34,281 new employees in total for all types of school, of which 4,367 are side-entrants (12.7 percent) who enter school service via the Conference of the Ministers of Education and Cultural Affairs (KMK) regulation. In his analysis, Klemm (2019a) reveals significant differences between the individual Federal States. For example, while the proportion of side-entrants in Bavaria (0 of 4127) and Saarland (0 of 357) totalled zero percent of the new employees, the proportion in Berlin (1266 of 3047) and Saxony (1086 of 2329) was over 40 percent in both cases. Except for Saxony, there are forecasts to meet gaps in demand in the individual types of school in all Federal States (Klemm, 2019b). These forecasts are converted into summarised modelling calculations (four years in advance) by the Conference of the Ministers of Education and Cultural Affairs (KMK) (2018a) in order to determine the requirement in the employment of all graduates. These figures point to completely different strategies of the individual Federal States when dealing with the shortage of teachers in relation to the use of the side-entry programmes of varying intensity.

2. Unique Features of the Subject Physical Education

In view of the comprehensive teacher training positions of primary education and the individual types of school of secondary education the Conference of the Ministers of Education and Cultural Affairs (KMK) pointed out in 2011 that “in both the short-term (up to 2011/2012) and the medium- to long-term (up to 2020) the highest employment requirements are anticipated in the subjects Chemistry, Physics, English, Music/Art/Design/Handicrafts and Physical Education. For teacher training or individual types of secondary education schools in the short- and long-term greater employment requirements are forecast in the subjects Mathematics, Physics, English, French, Art/Design/

Handicrafts, Music and Physical Education” (KMK 2011, P. 19). This general observation with regard to the predicted employment requirements in the various subjects is to be restricted in this article to the subject PE. With regard to current developments, the assessment of the Conference of the Ministers of Education and Cultural Affairs (KMK) (2011) has been confirmed in three ways.

First of all, Physical Education is the subject which with regard to the employment of side-entrants was consistently in the top five places in state school service in the national average over the past five years (cf. KMK, 2015; 2016; 2017; 2018b; 2019). Therefore, side-entrants in the subject Physical Education make up around ten percent of the total in the whole of Germany (e.g. $n = 410$ of $N = 4,064$ in the subjects of general education in 2018; KMK, 2019).

Secondly, the subject Physical Education is declared as a shortage subject in eleven of the 16 Federal States, particularly in primary education. A shortage subject is a teaching subject for which an insufficient amount of qualified teachers is available for the coverage of teaching requirements. As a shortage for all subjects at schools of general education is increasingly developing from the subject-specific shortage of teachers, to some extent this must be put into perspective. This unique feature is due to the fact that Physical Education is one of the few subjects which in the Federal Republic of Germany is taught “continually from the first year up to leaving school” (KMK & German Olympic Sports Federation (DOSB), 2017, P. 8) and “which is to be taught in all year groups, usually with three teaching periods” (KMK & German Olympic Sports Federation (DOSB), 2017, P. 8). In this regard, the importance of the subject Physical Education at the respective school has an impact on the actual implementation of the Conference of the Ministers of Education and Cultural Affairs (KMK) recommendation. Originating from the school management, this is reflected in particular in the employment and use of professionally trained teachers in Physical Education as well as for substitute teaching and during further training (Kastrup, 2009). Therefore, from the perspective of the school management the cancellation of lessons or non-specialist teaching in the main subjects is more serious than is the case for the subject Physical Education. Two unique features accentuate the specialist distinctive feature of Physical Education in the ensemble of teaching subjects: *On the one hand*, its unique content characteristic as a subject which involves movement with specific types of stress and exertion, in which motor exercises and learning are intimately linked to social learning experiences. In the process, the organism with its structures and functions becomes the object of constructive self-transformations, and these self-transformations are intensively understood and experienced and cognitively reflected (Hummel & Borchert, 2017). Closely associated with this is the growing

importance of cognition-oriented competence models, which have strongly influenced the understanding of Physical Education in the recent past (among others Laging, 2018). *On the other hand*, the distinctive feature is demonstrated in the consistently distinctive methodological and organisational openness in the practical implementation in sport halls, on sports grounds, in swimming baths, on ski slopes, on cross-country skiing paths, special courses and outdoors. Characteristics of Physical Education include competitiveness and competition, regulated competitive behaviour in the context of victory and defeat, varied movements with physical contact, tactical movement behaviour and fouls, the overt visibility of sporting performance execution as well as pronounced emotionality. The use of special sport-specific equipment and materials reinforces the dominant unique features of the subject (Hummel & Borchert, 2014; Hummel & Wendeborn, 2019). In addition, the distinctive feature of the subject includes a certain risk, which is why the principles of promoting safety and the stipulations with regard to supervision must be observed at all times (among others the Accident Insurer Saxony, 2017). These multi-layered requirements are processed by subdisciplines of sports science (sports psychology, sports pedagogics, training science, etc.). Nonetheless, teachers of Physical Education do not work fragmentedly as psychologists, biomechanists, physicians, sociologists or exercise scientists. As a rule, they work as application-oriented synthesis. However, rendering this synthesis performance is linked to requirements, which should not be surrendered to Physical Education teachers in general and lateral entrants in particular alone. This concerns an appropriate foundation in educational sciences and a framing of the real training processes but also a range and classifications of findings in scientific disciplines in concrete training concepts.

Derivatively this means that – *thirdly* – this often-underestimated synthesis performance cannot be accomplished by non-specialists [1]. Subsequently there is inevitably the problem that Physical Education lessons are frequently cancelled or are taught by non-specialists on a very low level. The latter particularly shows in primary education, where only half of the Physical Education teachers possess a teaching-related University degree (German Olympic Sports Federation (DOSB), DSLV & dvs, 2009; Demetriou et al. 2019). In this article, non-specialist teachers are understood as teachers giving lessons in the subject Physical Education, who lack the formal qualification or the teaching qualification [2] for the subject (Porsch, 2016).

3. Physical Education Teacher as a Profession

The occupational profile of a teacher is regarded as prestigious, livelihood securing and promising concerning job opportunities with a clearly structured income. It displays central job-related features: the performance of the job is based on a specific profession-related knowledge, which can be acquired by an academic qualification, confirmed by an educational certificate. Based on the gained knowledge, the field of the teacher's activity underlies a technical definition manifesting in the assignment on education. In addition, teachers can be centrally administered and represented by an appropriate occupational union.

Thereby, professional theoretical approaches in the context of the Physical Education teaching profession are relevant. By means of expert debates on conceptions, the contexts of job-related performance as well as conditions and opportunities of the investigated occupational group can be analysed in more detail. Thereby, profession-related performance competencies of side-entrants become meaningful. According to the findings of profession-related teacher training research (Bromme, 1992; Tillmann, 2011), competence is understood as mastering the professional requirements which are constituent for the teaching profession, which are to be understood as "context-specific cognitive activity scheduling, which relate functionally to situations and requirements in certain domains" (Klieme & Leutner, 2006, P. 879). According to Baumert and Kunter (2006), the subject-related professional knowledge forms an essential component of the professional action competence of teachers. According to Begall and Meier (2016), this is reflected in the domain-specific specialist knowledge, didactical knowledge and the curricular knowledge of Physical Education teachers.

However, Cachay and Kastrup (2006) in their investigations regarding the professionalisation and de-professionalisation of the role of Physical Education, teachers were able to demonstrate that academically trained Physical Education teachers do not have a monopoly on the sporting profession; instead, the subject-related professional knowledge of a Physical Education teacher is also used by other groups of subject teachers. This is explained in particular through the insufficient consolidation of the understanding of the profession of a Physical Education teacher. Kastrup (2009, P. 343) derives from this that "non-specialists can also be assigned the teaching competence for the subject Physical Education and therefore the expertise of a Physical Education teacher." This is particularly the case when Physical Education is reduced to motor learning or conveying sport motor abilities and skills. However, the difference between experts and non-specialists exists when knowledge and values with regard to movement, games and sport as well as methodological didactical knowledge are included.

This professional knowledge required to carry out the Physical Education teaching profession must be acquired by side-entrants with an equally high level of compulsory lessons at a school as part of in-service qualification in two subjects. This requires appropriate offers which do justice to the specific framework conditions in the individual Federal States. Through this the teachers giving lessons in the subject Physical Education in the future are to be qualified to prepare themselves for Physical Education with the inclusion of specialist knowledge and be able to react flexibly to the respective teaching situations in a methodological didactic manner (Ottenheim & Wendeborn, acc.). Closely linked to this are processes of the subjective development of theory and the development of the epistemological convictions of teachers (Baumert & Kunter, 2006).

4. Teacher Training in the Free State of Saxony

Taking into consideration the high number of side-entrants, the classification of Physical Education as a shortage subject (State Ministry of Culture Saxony, 2017) and ultimately the reduction of the proportion of compulsory subject classes for the subject Physical Education in the timetable (DSLVS Sachsen, 2018), it is particularly interesting to see how these developments are dealt with in the Free State of Saxony. In this article, the objectives of the Saxon qualification programme for side-entrants in the subject Physical Education are to be discussed, in order to be able to identify strengths and weaknesses with regard to the described problem area and ultimately derive implications.

First of all, it must be stated that teacher training courses at all locations in Saxony and in all subjects are completed through the first state examination (first phase of teacher training), which is regulated by an applicable state examination regulation (LAPO I) for all five higher education institutions [3]. The first state examination is a prerequisite for access to the preparatory service (second phase of teacher training), which in Saxony usually takes 18 months and is also regulated by the Federal State through an appropriate examination regulation (LAPO II) (Oelkers, 2018). Access to the profession at state schools can take place in the Free State of Saxony following successful completion of preparatory service through the second state examination. According to the Ministry of Education of Saxony, in the second phase “the pedagogical knowledge and knowledge of subject didactics, experiences and abilities acquired during study at the higher education institution, are to be extended and broadened in close relation to classroom teaching by future teachers in a manner which means they are able to perform the educational and teaching task as a teacher in a responsible

and successful manner” (Teacher Training Examination Regulation II Article 1 – LAPO II).

Through the signing of the employment contract, side-entrants commit to apply for appropriate qualification measures. During this period, a contractual reduction of the work obligation is usually required. Immediately after the commencement of employment, the side-entrants usually first of all complete a three-month period of entry-level training, which is organised within the catchment area of the respective location of the State Office for Schools and Education (Bautzen, Chemnitz, Dresden, Leipzig and Zwickau). In this phase, experienced teachers, former headmasters and mentors convey knowledge, abilities and skills with regard to the essential sequences of the school routine and teaching structures. Subsequently there is usually an in-service phase of qualification to make up for a lack of pedagogical and specialist competences. The qualification offers are individually designed and built on the existing higher education institution degree. The qualification measure serves to achieve a training level in the medium term, which is equivalent to the Saxon teachers who trained as undergraduates (State Ministry of Culture Saxony, 2019). In secondary schools, for example, a side-entrant with the Magister degree in English/German studies (both as a main subject) must merely complete the one-year in-service preparatory service in order to obtain equivalence with the Saxon teacher. However, the graduates of the course of study Master of Sport Science lack the second subject which they must first of all study in-service (usually two years) in order to subsequently attend the in-service preparatory service.

With reference to the explanations about the professional knowledge of the teachers giving lessons in the subject Physical Education, only the teaching qualification in the core subject Physical Education can be acquired via side-entry if a sports science study at a higher education institution has been completed. However, for all training and further training measures with the subject area Physical Education, it merely involves a certificate with which the school management is to be given information about which domain-specific knowledge bases have been completed. The side-entrants can, corresponding with the guidelines of the Accident Insurer (Unfallkasse), teach independently, but they do not possess permission to teach, and do not possess a teaching qualification within the meaning of a teacher trained as an undergraduate for the subject Physical Education.[4]

The path to equivalence with the Saxon teacher in the subject Physical Education varies depending on the type of school. In the primary school, didactics must first of all be studied in-service. This is scheduled for a duration of 24 months (modus operandi: three days at school, two days at university). For the

three days at the school, employment in 16 teaching periods is recommended. Six personal extracurricular periods mean the extent of overall employment rises to 22. The financial loss during study in comparison with a full-time position (27 teaching periods) is therefore reduced. Subsequently, the preparatory service is completed in-service (modus operandi: four days at school, one seminar day at the teacher training institution, two personal extracurricular periods). With regard to the study of primary school didactics (consisting of German, Mathematics, Social Studies and Educational Science), the problem arises that Physical Education can be chosen as the fourth subject in the subsequent preparatory service. This can mean that a side-entrant receives the teaching qualification in primary school didactics with the subsidiary subject Physical Education without ever having studied Physical Education. This is also the case when a candidate in another Federal State has completed a teacher training course in which no subsidiary fourth subject exists.

The situation is similar at special-needs schools. In this case, a special-needs topic must first of all be studied in-service for 24 months, before in-service preparatory service is subsequently completed.

For secondary schools, grammar schools (Gymnasien) and vocational schools, two different qualification options exist. With *Version A*, practical school training can be completed in-service over a duration of 12 months (modus operandi: four days at school, one day seminar) and through this the teaching qualification for the subject Physical Education is acquired. Subsequently the second subject is also studied in-service, for which the teaching qualification is immediately granted following completion. With *Version B*, a second subject can also be first studied in-service in order to subsequently complete the in-service preparatory service.

The in-service study of the subject Physical Education is not provided for by the Ministry of Education of Saxony (SMK) or the relevant universities. However, for the subject Physical Education there is a qualification measure with a series of modules scheduled for two years, at the end of which the graduates receive a certificate, which certifies them to be able to teach Physical Education. This measure is designed in-service for teachers giving lessons in the subject Physical Education, but not for teachers trained as undergraduates. Alongside general educational science competences, the side-entrants are to acquire in particular domain-specific didactic, methodological and reflexive competences. In the process, the phases of theoretical input and teaching – as a core competence of the teaching profession (Meier, 2015) – are interconnected and accompanied by the phases of teaching reflection. This approach corresponds with the ideas of Schön (1983) about the “reflective practitioner” and his differentiation between

knowing in action, *reflection in action* and *reflection on action*. However, it must be noted that for schools – in particular for the school management and the planning team – reflexively designed training first of all signifies more work. This is because sustainably structured reflection is also associated with additional work. Ideally, time slots would be created for this or blended learning scenarios used as a basis for reflexive exchange (in detail on this topic, see Borchert, Fritzenberg & Schlöffel, 2017).

The content-related organisation is oriented towards the content requirements common to all Federal States for the disciplines and subject didactics in teacher training (KMK, 2008), the requirements for the organisation of preparatory service common to all Federal States and the final state examination (KMK, 2012) as well as ultimately towards the applicable framework curricula for the subject Physical Education of the Free State of Saxony. In particular, the reception and use of framework curricula is, according to Stibbe (2016), a constituent prerequisite for a successful teaching structure of teachers. They form the basis on which specialist knowledge is used and applied. Even though Stibbe and Ingelmann (2011) were able to show that the Physical Education teachers giving lessons in the subject Physical Education barely or insufficiently possessed specific knowledge about the curriculum, side-entrants have the responsibility of a fully trained teacher for lessons. This means that the teaching must be organised corresponding to the curriculum and ultimately has – in the event of an accident during Physical Education – insurance-related consequences (Hummel & Wendeborn, 2019).

In the total of six modules, the participants are able to acquire competences for all sports and specific sports in different sub-areas, and in this way, they gain access to specialist content, which is fundamental for work in the different types of sport and study areas. This includes, for example, aspects of school legislation, safety in school sport as well as ultimately the domain-specific study areas (sports games, athletics, gymnastics etc.) of the framework curricula Physical Education of the various types of school (Tables 1 and 2). The domain specifics are closely linked to the subject didactics expertise of the prospective Physical Education teachers, as each individual domain requires corresponding knowledge. In the specific examination of the topic as part of further training (theoretically as well as from a practical sport perspective) an appreciation of the methodological and organisational proportion of Physical Education comes into effect, which in the current discussion of the subject Physical Education has been marginalised by some Physical Education pedagogues (Catchword: trivial methodological matters) and dismissed in favour of reflection (Krug, Wendeborn & Hummel, 2019). In this regard, it must be stated that the encouragement of

Table 1. Modules for the Side-Entrants of Primary Education

Primary School		M	o	d	u	l	E	
No.	Subject	1	2	3	4	5	6	Overall points
1	Legal Instruction	4		4				8
2	Sport Safety	2		2				4
3	Fundamentals/Basics	6	4	4	4	4	4	26
4	Athletics	16			16			32
5	Games	4	4	6	14	14	14	56
6	Swimming				6	6	6	18
7	Rescue Skills	8	8	8				24
8	Gymnastics/Dance/ Aerobics		8	8				16
9	Gym (Physical Education)		8	8		16		32
10	Fitness/Health		8	0	0		8	16
11	Martial Arts						8	8
	Total							240

motor development of 20 or more children is not possible without basic methodological and didactical knowledge (Hummel & Borchert, 2014).

5. Conclusion and Outlook

In the past 20 years, the conceptualisation and measurement of subject-related professional knowledge of prospective and practising teachers has gone through a cyclical upturn. To begin with, the focus was particularly placed on the mathematics, informatics, natural science, and technology (MINT) subjects (Kunter et al., 2011), subsequently the investigations were also concerned with the subject Physical Education (among others Meier, 2015; Begall & Meier, 2016). Apart from a few investigations (among others Kastrup, 2009), all investigations of the point of reference of the conventional teacher training biography have a common factor with the first, second and third phase. The development of the professional action competence of side-entrants, as well as the effect of comprehensive use on the “monopoly of Physical Education teachers,” (Kastrup, 2009, P. 334) has not previously been investigated. At best, the investigations of Cachay and Kastrup (2006) with regard to professionalisation/de-professionalisation in the Physical Education teaching profession allow inferences to be made with

Table 2. Modules for the Side-Entrants of Secondary Education

Secondary School		M o d u l e						Overall points
No.	Subject	1	2	3	4	5	6	
1	Legal Instruction	4		4				8
2	Sport Safety	2		2				4
3	Fundamentals/Basics	6	4	4	4	4	4	26
4	Athletics	16			16			32
5	Games	12	12	14	14	14	14	80
6	Swimming	0	0	0	0	6	0	6
7	Rescue skills	0	0	0	0	0	0	0
8	Gymnastics/Dance/Aerobics		8	8				16
9	Gym (Physical Education)		8	8		16		32
10	Fitness/Health		8	0	6		8	22
11	Martial Arts					0	14	14
	Total							240

regard to side-entrants. In view of the shortage of teachers in almost all types of school and subjects in the Federal Republic of Germany and the associated high number of side-entrants in general and in Physical Education in particular, a research field has come about within a comparatively short period of time, which until a few years ago largely led a niche existence due to the absence of necessity. According to Tillmann (2019, P. 13), “in the educational sciences and in educational policy reflection [...] in future the shortage of teachers should therefore no longer be viewed so much as a cyclical crisis, but rather as a continuous side effect of normal school development. Although cyclical waves of supply and demand exist in this regard, sectoral shortages also exist for certain regions, school year groups and teaching subjects in phases where a great many qualified teachers are available.” Respectively, the Association of Teaching Methodology (GFD, 2018, P. 1) criticises the “missing of concepts, guided by the standards of a professional teacher training.”

In view of the various programmes and regulations for side-entry in the Federal States, it must be clear that, in view of the time available and the guidelines and standards which are to be fulfilled, it merely involves reduced insights into the Physical Education teaching profession. This inevitably results in the obligation of the Ministries of the Federal States responsible for education as well as subordinate institutions on the one hand to take steps in education policy to reduce

both the amount of lessons given by non-specialists as well as the huge number of side-entrants. This also needs to contain an improvement of the occupational perspectives for teachers in the primary sector but also the equalisation with those of the secondary sector. On the other hand, the side-entrants, who have permission to teach in state school service, must be continually monitored in their domain-specific competence development, their reflection competence, their growth in an expert role as a Physical Education teacher as well as ultimately in their stress and exertion profiles. If the aim is a genuine qualification of teachers on the part of the Federal States (also in view of the possible use as specialist advisors, headmasters or deputy headmasters), it is important to not just fill gaps in demand in the short-term, but to strive for a qualification which is planned in a sustainable manner. With the inclusion/consideration of these prerequisites, the training programmes cannot end with the attainment of the access prerequisites for the teaching profession. For this, the various forms of supervision are an appropriate and proven method. Ultimately the schools of the side-entrants also profit (Catchword word: From teacher to mentor to pupil; Richter-Kruse, 2019).

However, not only educational policy and administration are obligated to act. The pressure also lies on universities and the associated disciplines. Initially, the courses of studies for future Physical Education teachers must be redesigned that they fulfil the standards of the core curriculum of the German Association of Sport Science (dvs, 2017) for Bachelor study programmes concerning extent and content. Furthermore, those training courses need to be guided by the requirements for scientific disciplines and teaching methodology in teacher education agreed upon by all federal states of Germany (KMK, 2008). In addition, universities must hold enough places to study, especially for teaching in primary schools. This involves the appropriate amount of equipment and staff at the institutes of sport science. Particularly, among all fields of sport science in teacher education, sport pedagogics needs to be considered, being the Physical Education teacher's specific professional science including sport didactics and methodology. Contemporary sport pedagogics does not or just partly meet the expenses of an integrated job-related discipline with its constructively synthesizing tasks and leading function for different reasons. The reference to other specific disciplines of sport science clarifies that sport pedagogics does not only come into play when "disturbances" in lessons need to be compensated or social learning processes initiated. The abbreviation of the scientific discipline is a distinct achievement of sport pedagogics (sport didactics and methodology). Nonetheless, it does not seem possible to accredit sport pedagogics with a central role for the development of school sports and the subject Physical Education.

The aspiration to be the supervising science for school sports and to be accepted as the professional science of Physical Education teachers cannot be fulfilled appropriately anymore. The arisen functional and structural vacuum was formally and rationally charged by other disciplines (of sport science) in the meantime. This happens in an extremely ambitious manner by sport psychology, sport medicine, training and movement methodology as well as biomechanics. The pedagogical tasks are “somehow” exercised by the implicit pedagogical appendices of those disciplines. However, the former discourse on sport pedagogics, if it is a core discipline or just a subdiscipline, is academically little beneficial (Kurz, 1992; Scherler, 1992). The focus must be on the concrete destination of functions and tasks. In so far, sport pedagogics is a subdiscipline with special job-related, synthesizing functions for the major professional groups in sports. Just by that, it can (again) become the highly demanded professional science for both active Physical Education teachers as well as side-entrants.

The Free State of Saxony is under particular observation in view of the high percentage of side-entrants. Particularly also because in view of political constraints and the evolving realities at schools from the school year 2019/20 for Physical Education (but also in other teaching subjects), there will be a change to the timetable (DSLVS Sachsen, 2018) [5]. With regard to the empirical findings regarding the physical, physiological and psychological/mental development of children and young people, these decisions must at least be scrutinised. An improvement of the attractiveness of the Physical Education teaching profession will probably not result from this. The path can only lead via an expansion of capacities at the universities in Saxony, without creating a situation of a higher number of students with the same levels of personnel. In addition, target agreements between the Ministry and the universities must also be adapted in order to do justice to the actual requirements of the respective type of school and subject-specific requirements. For the subject Physical Education a change to the entry requirements for teacher training study – including the selection procedure and assessments of suitability – is conceivable. However, such adjustments must do justice to the specific requirements of the subject Physical Education.

- [1] Kastrop (2009) has written in detail about the use of non-specialist teachers in PE and the effects on the expert status of Physical Education teachers.
- [2] “A teaching qualification for one subject (or two or more subjects) is acquired in Germany in connection with a teacher training qualification for certain teacher training positions (e.g. at primary schools or grammar schools (Gymnasien) usually with the successful completion of the (second) state examination and represents proof of subject-related education, which

means, during study (1st phase) and during the probationary period or preparatory service (2nd phase) this subject was a study and training subject” (Porsch, 2016, P. 11).

- [3] Leipzig University, Dresden University of Technology, Chemnitz University of Technology, University of Music and Theatre “Felix Mendelsohn Bartholdy” Leipzig, the “Carl Maria von Weber” College of Music in Dresden.
- [4] In the other subjects, the Free State of Saxony pursues the strategy of catching up on the lacking qualification requirements of the teacher training related subject via in-service studies. The permission to teach is subsequently granted for a respective type of school, whereby the higher education institution degree corresponds with regard to specialism, content and extent as far as possible with the criteria stipulated in the Teacher Training Examination Regulation I (LAPO I).
- [5] In primary schools in the 3rd grade, there is a reduction of one lesson in Music, and in the 4th grade a reduction of one lesson in German and Physical Education. In secondary schools in 7th and 8th grades, one lesson of Social Studies/Legal Instruction is obligatory. For this one lesson of Mathematics (5th grade), English (6th grade), Biology (7th grade) and Physical Education (for each grade 7 to 10) is omitted. In the grammar school (Gymnasium) from the 7th grade, Social Studies/Legal Instruction/Economics are obligatory (previously from 9th grade) and in grades 9 and 10 Computer Science lessons are obligatory (already the case from August 2018). There is one lesson fewer in Mathematics and Technology/Computer Science (5th grade), 2nd Foreign Language (6th and 8th grade), Biology (7th grade), Physical Education (7th grade) and Music (8th grade) in each case.

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