

Summary

INTRODUCTION

In recent years, teacher training institutes and schools have been working together more and more intensively in order to train more and better teachers. These developments are known as school-based teacher education and have led to the emergence of Professional Development Schools (PDS⁶⁴). School-based teacher education is developed through intensive cooperation between PDS and teacher training institutes, with much of the student training now taking place in the workplace. Professional Development Schools⁶⁵ are becoming increasingly involved in training future staff and are gaining more responsibility. The Dutch Ministry of Education, Culture and Science has been highly in favour of this type of in-school training for some time. This was emphasised in 2009 when the Ministry officially recognised the ‘Professional Development School’ as ‘a PARTNERSHIP⁶⁶ between one or more primary and secondary teacher training institutes and one or more schools for primary, secondary or vocational education’ (NVAO [Accreditation Organisation of the Netherlands and Flanders], 2009, p. 5). These developments have raised questions regarding the quality of schools serving as PDS also given that teacher training institutes are responsible for certification.

THEORETICAL BACKGROUND

In this dissertation, the quality of the Professional Development School is explored from three perspectives. The first perspective looks at policy documents, publications and empirical educational research on the quality of PDS, primarily with regard to the Dutch situation. The second perspective examines workplace learning and training, as well as quality of the workplace as a learning environment. It uses theories and research on workplace learning from professional areas other than the education sector. The third perspective taken is that of professionals working in or associated with PDS. In an exploratory

64 Professional Development School and its abbreviation PDS will both be used.

65 In this dissertation, the term Professional Development School – unlike the definition given by the Dutch Ministry of Education, Culture and Science – is used consistently for the **primary or secondary school** cooperating with one or more teacher training institutes. The term **partnership** is used to denote the **cooperation** between PDS and teacher training institutes in the context of school-based teacher education.

66 Accentuation by the author.

study, the opinions of these professionals regarding *what* determines ‘a good Professional Development School’ are described.

The policy documents and literature on school-based teacher education use a vast range of terms and descriptions for the concept of ‘school-based teacher education’ and ‘Professional Development School’, resulting in some ambiguity as to the meaning or intended purpose of these concepts. The fact that the Dutch Ministry of Education, Culture and Science defined PDS in 2009 as a ‘partnership’ clearly indicates the desired organisational structure and main objective, namely to prepare student teachers for their future profession (NVAO, 2009). School-based teacher education is therefore defined as a training programme which is both developed and realised by PDS in cooperation with teacher training institutes.

Various publications on the quality of the PDS, and the instruments that have been developed to assess this, show that there has always been much attention paid to the quality a school should have in order to be considered a partner in teacher training (Kallenberg & Rokebrand, 2006; Keurmerk Opleidingsschool Utrechts Model, 2006; NVAO, 2007; Geldens, et al., 2008; ILS, 2008). In these publications quality is usually described from two perspectives; from the perspective of the teacher training programme, in which education is the main focus, and from the perspective of the partnership, which focuses on the cooperation between PDS and teacher training institutes. From both perspectives quality is defined in terms of certain preconditions and organisational aspects. The assumption is that the presence of these preconditions and aspects is an indication of adequate quality. In describing quality, little attention has been paid thus far to the study and design of workplace-driven learning in contrast to education-driven learning in the workplace although *workplace learning* is considered one of the cornerstones of school-based teacher education (Timmermans, Van Lanen, et al., 2008). In order to be able to judge the quality of PDS, it is important to gain insight into workplace learning and the role of the workplace as a learning environment.

Workplace learning is described as learning through work by participating in the everyday activities of the workplace. Workplace learning is important for *labour organisations* because learning as part of the execution of work contributes to improved achievement of production goals and targets and towards the innovation of work and working processes. With respect to *competence-based teacher education*, workplace learning is highly regarded as it contributes to student teachers’ preparation for their work as a teacher, and to achieving training objectives/goals. Learning skills and competences for a profession is best

realised in an authentic situation (Billett, 2001a; Klarus, 2003b; Kwakman, 2003b; Ten Dam & Blom, 2006; Illeris, 2011).

Workplace learning is influenced by workplace characteristics such as characteristics of the function and nature of the work itself, of the social work environment, and those of the information available in the workplace. These characteristics relate to more *general* statements about everyday work and work activities. Billett (e.g.: 2001a; 2004c) emphasises that *concrete* work activities in the authentic situation determine the quality of the workplace and therefore of workplace learning. In this respect, he refers to workplace affordance: the degree to which workplaces afford student teachers opportunities for learning. Given that every work situation is different, affordance is a variable factor and therefore the ideal workplace as the learning environment does not exist.

Workplace learning also depends on the active role of the learner. However inviting and abundant a learning environment might be, the main issue is how individuals elect to engage in the activities offered. The individual influences his/her own learning experience. Billett calls this ‘agency’ (e.g.: 2001a; 2004c). In making choices, the learner is influenced by personal characteristics such as study year, sex, motivation, self-confidence and practice-oriented learning modes. Various studies refer to certain influential characteristics, but unequivocal statements about those influences are not made. Determining quality is highly complex given the fact that workplace learning is a complex combination of factors in which both participation in work and the role of the learner are important, and the aim is the development of competences.

Professionals working in or associated with PDS are continually working on the quality of their professional development school. It is interesting to know how they perceive that quality. An exploratory study carried out as part of this research shows that professionals perceive a good Professional Development School primarily from the perspective of teacher training, like its programme and activities, and hardly ever from the perspective of ongoing processes or work activities in schools, like the primary process of educating children or the professionalization activities for teaching staff. However, the learning and training of student teachers must be related to what happens in schools within the primary process and professionalization activities. It is precisely this aspect of PDS that makes them a special, *authentic* learning environment for student teachers. We can conclude that the professionals, despite their experience and knowledge of daily practice at school, do not automatically take their own working practice as a starting point of school-based teacher education. Consciously or otherwise, they adhere to what government policy and general quality standards indicate to be the important characteristics of quality in Professional Development Schools.

The combined results of these three perspectives (1. policy documents, publications, and empirical research on PDS, 2. theories and research on workplace learning, 3. professional opinions on quality of PDS) emphasise the need to examine the quality of Professional Development School by looking at the characteristics of the workplace, in the form of activities and interactions, as a learning environment.

RESEARCH QUESTIONS

In order to examine the quality of Professional Development School, the concept of affordance, agency, student characteristics and competence development were used as a starting point (figure 1: conceptual model). The aim of the study was to gain insight into the quality of PDS by examining how affordance, student characteristics and agency relate to each other and how they influence the way in which student teachers develop competences.

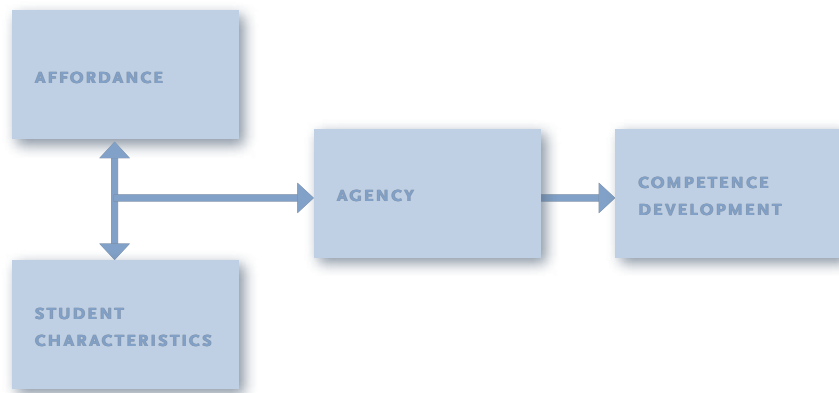


FIGURE 1 Conceptual model

The conceptual model served as a guideline for formulating the research questions and carrying out the studies. Central to the dissertation is the following research question:

‘What is the quality of the Professional Development School in terms of student teachers’ competence development?’

This research question was answered by addressing the following sub-questions:

1. Which activities constitute the affordance of a Professional Development School?
2. Which activities constitute the agency of a student teacher?
3. In what way do affordance and student characteristics influence a student teacher’s agency?
4. What is the relationship between a student teacher’s agency and his/her competence development?

METHOD

This dissertation entailed two studies: The first study focused on the first three sub-questions and concentrated on describing workplace learning in PDS. Student teachers and their mentors at two teacher training institutes for primary education in the Netherlands participated. Questionnaires on affordance, agency and student characteristics were used.

The second study focused on the relationship between agency and competence development. This study involved only second and third-year student teachers and their mentors and used the questionnaire on agency (for student teachers only) and questionnaires for competence assessment (for both mentors and student teachers).

AFFORDANCE

Affordance refers to the learning opportunities in the workplace and the way they are afforded by the Professional Development School. The affordance of the PDS was based on 64 activities and interactions that were directly related to the everyday work of teachers. They were categorised into four types of activities, namely ‘activities for/with pupils’, ‘activities at school level’, ‘the use of sources/resources’, and ‘professionalization activities’ organized by and for the staff of the PDS. The way an activity was afforded was expressed as an *optional* activity, a *compulsory* activity or as an activity *not accessible* to student teachers. Data on affordance of the PDS were gathered through the mentors: they indicated for all 64 activities whether a student teacher was able to, was obliged to or was not allowed to participate in an activity.

AGENCY

Agency is described as the student teacher’s choice of activities and the actual participation in those chosen activities. The activities and interactions the

student teacher could participate in were the same as the activities and interactions included in the affordance of the PDS: ‘activities for/with pupils’, ‘activities at school level’, ‘the use of sources/resources’, and ‘professionalization activities’. Student teachers could choose to carry out one, several or all of the activities. In order to gain insight into agency, student teachers indicated for all 64 activities whether or not they had carried out an activity during their work placement in the PDS.

STUDENT CHARACTERISTICS

The study comprised three groups of student characteristics, each of which was considered to have influence on workplace learning. The first group comprised student teachers’ background characteristics, i.e. age, study year, previous training and sex. The second group comprised the personal characteristics of self-efficacy, conscientiousness, anxiety, motivation, and locus of control (Blokhuis, 2006). The third group of characteristics comprised five practice oriented learning modes (Hermanussen, et al., 2000; Blokhuis, 2006).

COMPETENCE DEVELOPMENT

An important principle in the training of future teachers is competence development (e.g.: Klarus, 1998). The competence requirements for teachers have been described by the Association for the Professional Quality of Teachers (SBL) in seven competences. Four of these competences were included in this study: 1. interpersonal competence, 2. pedagogical competence, 3. subject matter & methodological competence, and 4. organisational competence. The development of these competences was assessed by using a pre and post test. Both mentors and student teachers assessed student teacher behaviour at the start and finish of the work placement. A 5-point scale of competence indicators, which describe concrete professional actions, was used to reveal a teacher’s competence.

RESULTS

Which activities constitute the affordance of a Professional Development School?

Mentors indicated how these 64 activities were afforded, i.e. as optional, compulsory or not accessible. The results showed that the majority of the activities were afforded as optional, that a quarter of the activities were compulsory and that 14% of the activities were not accessible to the student teachers. More specifically, most ‘activities for/with pupils’ were compulsory and most of the

‘use of sources/resources’ was optional. Most ‘activities at school level’ and ‘professionalization activities’ were not accessible to student teachers. Mentors differed significantly with regard to the number of activities they considered optional or compulsory, or not accessible to their student teachers. Some mentors considered all 64 activities optional, others only 11%. At the same time, some mentors afforded none of the activities as compulsory, while others afforded 72% as compulsory activities. Defining ‘typical’ optional, compulsory or non-accessible activities was difficult.

The results indicate that mentors did not offer the full range of activities from the authentic work situation at school. Student teachers were given more than sufficient time to work with pupils in the group, but were allowed to participate in fewer school-related activities. This limited the learning possibilities available for student teachers to function as a colleague and team member. Because of the major differences between mentors regarding affordance, the affordance of an individual professional development school could not be identified. Despite the fact that each professional development school had its own individual approach to workplace learning, this was not apparent in its affordance.

Although mentors varied in their affordance, they did all take the student teachers’ study year into account, i.e. student teachers in a more advanced year of study were allowed to participate in more activities. Fourth-year student teachers were in fact afforded twice as many compulsory ‘activities for/with pupils’, ‘activities at school level’ and ‘use of sources/resources’ compared with first, second and third-year student teachers. Affordance regarding ‘professionalization activities’ did not differ with study year.

Which activities constitute by the agency of a student teacher?

Student teachers carried out two thirds of the 64 activities during their work placement. They showed a preference for participating in ‘activities for/with pupils’ and participated in only half of the possible ‘activities at school level’ and ‘professionalization activities’. There was a large difference in agency between student teachers: some student teachers carried out 63 activities during their work placement, while others participated in only 16 of the 64 possible activities. The study year was the determining factor and explained a number of the differences between student teachers; the number of activities in which they participated increased with the advancement in study years.

With regard to the agency of student teachers, typical YES-activities (participated in) and NO-activities (not participated in) could be distinguished. Typical YES-activities were ‘preparing activities involving pupils’, ‘having feedback/

guidance talks with mentor', and general 'tasks' at school level, such as 'talking to colleagues' and 'making coffee'. Typical no activities included 'taking part in induction training for new members of staff', 'carrying out activities involving parents', 'having consultations with external experts' and 'preparing tests for the children'; 70% or more student teachers did not carry out these activities.

In what way do affordance and student characteristics influence a student teacher's agency?

Workplace learning is seen as an interaction between affordance, student characteristics and agency. On examining the influence of affordance on agency, it appeared that student teachers did at least carry out those activities that were compulsory. This applied for each of the four types of activities. When student teachers were free to choose (*optional* activities), they usually opted for 'activities for/with pupils', and chose to a somewhat lesser extent 'activities at school level' and 'professionalization activities'. A small number of student teachers participated in activities which their mentors had indicated as *not accessible*.

Statistical analyses confirmed that affordance influences the agency of the student teacher. The more activities mentors designated as *not accessible*, the more activities student teachers did *not* carry out. The opposite was also true: the more activities afforded, the more activities student teachers carried out. It made no difference whether an activity was afforded as optional or compulsory, what was important was whether it was accessible or not.

When student characteristics were included in the analysis, it appeared that a student teacher's agency was influenced by both affordance (the number activities that the mentor made accessible), and the student teacher's study year and level of conscientiousness (i.e. the student teacher's degree of accuracy, reliability and self-discipline). This means that when mentors made more activities accessible and student teachers were more conscientious and in a higher study year, student teachers carried out more activities. Conversely, when mentors offered fewer activities and student teachers were less conscientious and in a lower study year, student teachers carried out fewer activities. The influence of these three variables was also apparent with 'activities at school level'.

With respect to the other three types of activities, the influence of these three variables was not distinct. 'Activities for/with pupils' was only influenced by the study year, the 'use of sources/resources' by study year and reflective ob-

servation, and it was only the mentor's affordance that influenced participation in 'professionalization activities'. Affordance and study year, however, were the variables with the greatest influence and determined many of the differences between student teachers' agency.

What is the relationship between the student teacher's agency and his/her competence development?

Competence development was determined for second and third-year student teachers at the PDS. The results showed that all student teachers developed competences during their work placement period, although the degree to which student teachers developed these competences differed.

In order to determine the relationship between agency and competence development, the student teachers were divided into two groups: one group with *high* agency and another group with *low* agency. The groups differed significantly with regard to the number of activities carried out: the 'high agency' student teachers participated in many activities while the 'low agency' student teachers participated in fewer activities. When comparing the scores on the pre test, the post test and the scores for competence development, no differences between the two groups were found. This result did not change when the scores on the post test of both groups were compared with the pre test score as covariate. In other words, student teachers who carried out many activities developed, on average, to the same extent as student teachers who carried out fewer activities.

On the basis of the results shown above, it was possible to provide an answer to the main question: 'What is the quality of the Professional Development School in terms of student teacher's competence development?'. Using competence development as a measure of quality, it was not possible to determine the quality of PDS (figure 2). Differences in affordance were established, as well as differences in agency and in competence development. And affordance (and study year) did influence agency. However, *differences in the agency* of student teachers did not result in *demonstrable differences in competence development*. Based on the fact that affordance did influence agency, it therefore stands to reason that *differences in affordance* would not result in demonstrable differences in competence development either.

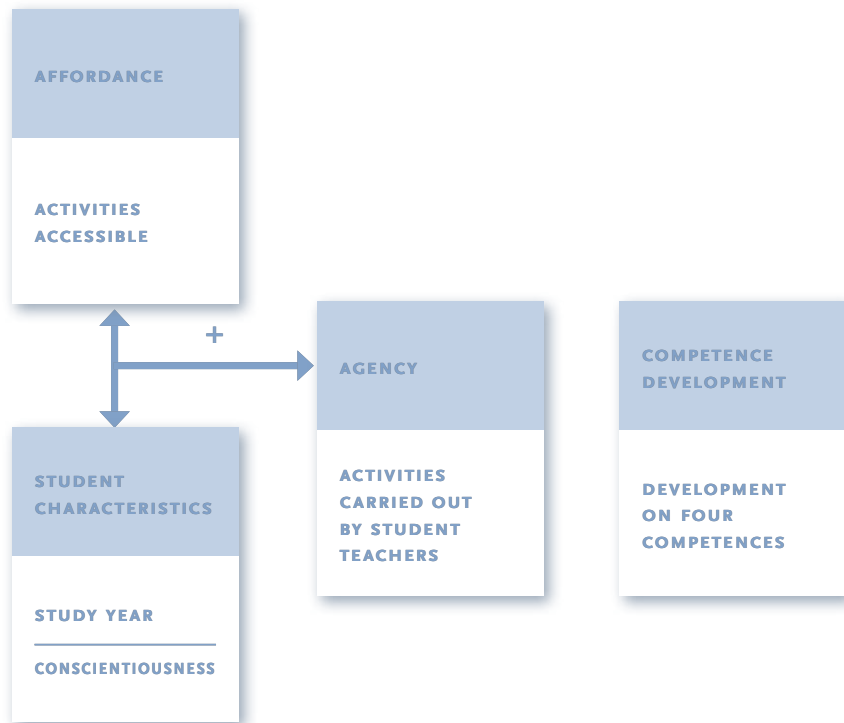


FIGURE 2 Results

CONCLUSIONS, REFLECTIONS AND RECOMMENDATIONS

When this research began, little was known about the quality of Professional Development Schools in relation to student teacher development. In that respect, the results of the study were not as expected and perhaps somewhat disappointing as no unambiguous conclusions could be drawn regarding the quality of Professional Development Schools. However, the studies did provide insights that put this quality into perspective.

The affordance of a *Professional Development School* could not properly be determined because of the variation in the affordance of *individual mentors*. There were significant differences between mentors; even between mentors working in the same professional development school. It also appears that mentors did not afford all the possible activities. Mentors had a strong preference for affording ‘activities for/with pupils’; far fewer ‘professionalization activities’ and

‘activities at school level’ were offered. Mentors therefore seem to consider it particularly important that student teachers gain experience working with pupils in a class. The type and number of activities they offered depended on the *study year*, not on student characteristics or learning needs, as might be expected in workplace learning. Affordance would appear to depend on the ideas held by individual mentors and what they consider important for their student teachers’ workplace learning. Given the influence of the study year, it seems that the formal teacher-training programme carried out by the teacher training institute has more influence than the work processes and activities in the PDS. The question is whether it is desirable that the quality of workplace learning is strongly determined by individual mentors.

Where mentors failed to make all activities accessible or where there was a preference for certain activities, student teachers did not carry out all possible activities either. They appeared to do mainly what was compulsory according to the mentor’s affordance. Regarding optional activities, the student teachers chose primarily ‘activities with/for pupils’. Student teachers obviously perceived these activities as the most important activities for their workplace learning, and best suited to their learning needs. Student teachers gained far less experience in working as a colleague and team member, and thereby missed the opportunity of learning the broader profession. Neither did they make optimal use of all the possibilities afforded by the mentor of the PDS.

The fact that no demonstrable relationship was found between agency and competence development in this study at least means that greater participation by student teachers does not automatically result in further competence development. Student teachers do develop when they spend time learning at the Professional Development School, but it is not clear how the differences in competence development can be explained. Possible explanations may lie in the kind of activities participated in, the frequency with which student teachers carried out activities, how they performed the activities or in the guidance received by student teachers.

It was assumed that the quality of an individual PDS could be determined based on the fact that PDS all offer individual authentic situations and that this would become apparent in the activities and interactions that mentors made available to the student teachers (affordance). In fact, this was not the case, and in that respect it is clear that the ideal Professional Development School does not exist.

In previous years investments made by PDS were mainly focused on *educating* student teachers and organising and realising cooperation with teacher training institutes. Much less attention was given to the workplace *learning*

of student teachers and the activities in authentic situations in PDS that could enhance this learning, and what the benefits could be. If these professional development schools are to contribute demonstrably to the development of student teachers, a renewed focus on school-based teacher education and the role of PDS is required. This involves two key activities: becoming a Professional Development School and developing a workplace curriculum.

In order to become a Professional Development School, it is advisable to offer a greater individual and recognisable range of activities (affordance), to use the authentic situation to its greatest advantage, and to tailor the range of workplace activities to suit the starting situation and learning needs of the student teacher - and to do so to a greater extent than is currently the case in most PDS. The following question is paramount for PDS: 'In what way can we and do we want to contribute to the learning and training of student teachers up to entry-level ability?' Raising mentors' and team members' awareness plays a crucial role in this respect, as does the cooperative promotion of the qualities of one's own PDS through the affordance it offers. This prompts schools to develop their own specific range of activities, with consideration for the way in which that range can be implemented and the intended learning results. In this way, Professional Development Schools can work towards laying the foundations for a curriculum for workplace learning (Billett, 2006a).

Designing and implementing a workplace curriculum is an activity not only required of the Professional Development School; it is something that both partners (PDS and teacher training institutes) must do jointly within the partnership. The workplace curriculum is an *entirely new curriculum* characterised by an optimum balance between workplace learning and learning at the teacher training institute. Optimum use is made of the qualities of both the PDS and the training institute. This means that every partnership has its own curriculum through which student teachers can achieve entry-level teaching skills and in addition, learn specific qualities typical of the partnership in question. One typical characteristic of a workplace curriculum is that it cannot be completely planned and organised in advance, but is tailored to individual student teachers *during* their workplace learning. In this way, each partnership develops its workplace curriculum so that the form and content of student teacher learning is both correct and suitable; suitable for the individual student teacher and suitable for a broad range of work activities within the school. The quality of PDS would thus be apparent through the way in which individual student teachers develop their teacher competences by participating in all possible activities within the PDS.

Zusammenfassung

EINLEITUNG

Lehrerbildungseinrichtungen und Schulen haben in den vergangenen Jahren immer enger zusammengearbeitet, um mehr gute Lehrer auszubilden. Diese Entwicklungen sind unter der Bezeichnung ‚Ausbildung in der Schule‘ bekannt und haben zur Entstehung von Ausbildungsschulen geführt. Die Ausbildung in der Schule wird in einer intensiven Zusammenarbeit zwischen Ausbildungsschulen⁶⁷ und Lehrerbildungseinrichtungen gestaltet. Ein großer Teil des Lehramtsstudiengangs spielt sich zukünftig an der Ausbildungsschule ab. Ausbildungsschulen werden und sind stärker an der Ausbildung von zukünftigen Lehrern beteiligt und bekommen eine größere Verantwortung zugewiesen. Dass das Ministerium für Erziehung, Kultur und Wissenschaft (Ministerie van Onderwijs, Cultuur en Wetenschap, ocw) großen Wert auf die Ausbildung in der Schule legt, zeigt sich durch die Tatsache, dass es im Jahr 2009 diese Zusammenarbeit offiziell als ‚Ausbildungsschule‘ anerkannt hat: „*eine PARTNERSCHAFT⁶⁸ zwischen einer oder mehr Lehrerbildungseinrichtungen für Primar- beziehungsweise weiterführende Schulen und einer oder mehreren Schulen für Primar- beziehungsweise weiterführende und/oder Berufsbildung*“ (NVAO, 2009, S. 5). Diese Entwicklungen werfen – auch aufgrund der Tatsache, dass die Lehrerbildung für die Zertifizierung verantwortlich ist – die Frage nach der Qualität der Schule als Ausbildungsschule auf.

DIE QUALITÄT DER AUSBILDUNGSSCHULE

Die Qualität der Ausbildungsschule wird in dieser Untersuchung aus drei verschiedenen Blickwinkeln betrachtet. Der erste Blickwinkel betrifft Strategiepapiere, Publikationen und empirische Forschung in Bezug auf die Ausbildungsschule und deren Qualität und geht vor allem von der Situation in den Niederlanden aus. Der zweite Blickwinkel betrachtet die Qualität anhand von Studien, Theorien und Forschung aus anderen Berufszweigen sowie die Aus-

⁶⁷ Der Terminus Ausbildungsschule wird in dieser Arbeit – im Gegensatz zu der Beschreibung des Ministeriums für Erziehung, Kultur und Wissenschaft (ocw) - konsequent für die Primar- und weiterführende Schule verwendet, die mit einer oder mehreren Ausbildungseinrichtungen für Lehrer zusammenarbeitet. Partnerschaft wird verwendet, wenn die Arbeitsgemeinschaft ‚Ausbildung in der Schule‘ von Ausbildungsschulen und Ausbildungseinrichtung(en) gemeint ist.

⁶⁸ Hervorhebung durch den Verfasser