



The practicum in teacher education at the University of Cologne (Germany)

El prácticum en la formación de los futuros profesores en la Universidad de Colonia (Alemania)



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Fecha de recepción: 15/09/2023

Fecha de aceptación: 16/10/2023

Fecha de publicación: 11/12/2023

Abstract

In 2015, universities in the state of Northrhine-Westfalia introduced the semester practicum which was appreciably longer than previous teaching practice. Inspired by a paper by Zabalza Beraza (2016) who suggested that external training practices may be viewed (a) as a curricular component, (b) as a learning situation and (c) as a personal experience, I decided to analyse the semester practicum in teacher education at my university, the University of Cologne, as well as the results of a research project carried out by researcher from the universities of Cologne, Paderborn and Siegen from the point of view of Zabalza Beraza's framework. The framework turned out to be very helpful in organizing findings from official documents and from the research project. At the same time, it seemed that Zabalza Beraza and the initiators of the semester practicum differ slightly with respect to how they perceive the objectives of the practicum in teacher education.

Keywords

Curriculum, empirical research, evaluation, practicum, teacher education.

Resumen

En 2015, las universidades del estado de Northrhine-Westfalia introdujeron el semestre prácticum que era más extendido que las prácticas anteriores. Me inspiró un artículo de Zabalza Beraza (2016) que propuso que se puede mirar a las prácticas externas como (a) componente curricular, (b) como situación de aprendizaje y (c) como experiencia personal. Entonces decidí analizar el semestre prácticum en la formación de los futuros profesores en mi universidad, la Universidad de Colonia, y los resultados de un proyecto por investigadores de las universidades de Colonia, Paderborn y Siegen utilizando la estructura sugerida por Zabalza Beraza. La estructura me ayudó mucho a organizar los contenidos de los documentos oficiales y los resultados del proyecto. Al mismo tiempo, parece que existen diferencias con respecto a cómo perciben Zabalza Beraza y los iniciadores del semestre prácticum los objetivos del prácticum en la formación de los futuros profesores.

Palabras clave

Currículum, investigación empírica, evaluación, prácticum, formación de los futuros profesores.

1. Introduction

Founded in 1388, Cologne University is one of the oldest universities in Germany and also with more than 50.000 students one of the largest. The university hosts six faculties: (1) faculty of management, economics and social sciences, (2) faculty of law, (3) faculty of medicine, (4) faculty of arts and humanities, (5) faculty of mathematics and natural sciences and (6) faculty of human sciences.

Before entering the European Higher Education Area (EHEA), Cologne University offered final degrees for all its careers either as state examination or as diploma or as magister (similar to master) after five to six years of studies. There were examinations after the first part of the studies which students had to pass in order to proceed to the second part, but these examinations did not lead to a certificate which could be used outside the university. Nowadays, all faculties offer university courses at graduate and postgraduate levels (bachelor and master).

Most faculties offer internal as well as external training practices, some of them are mandatory, others are optional. This may be different for different courses in each faculty, i.e. a faculty may offer all four kinds of training practices depending on the specific courses. By and large, students in some study programs are required to participate in external training practices in the faculty of law, of medicine, and of human sciences, notwithstanding the fact that these faculties also offer study programs where students may decide to participate in an external training practice without being obliged to do so.

I have been teaching in the field of teacher education at the university of Cologne for many years and in this paper, I would like to have a closer look at the practicum in teacher education at our university as described in official documents and at results from a longitudinal research project that was carried out at our university and at the universities of Paderborn and Siegen. In doing I will adopt the perspectives Zabalza Beraza (2016) suggested as a framework for analysing external practices.

As Zabalza Beraza suggested in the first issue of *Revista Practicum*, the practicum in university education and external practices can be analysed from three different perspectives: "(a) as a curricular component that has been incorporated into almost all careers; (b) as a learning situation in which students are expected to develop knowledge and skills that are complementary to those acquired in university classrooms; (c) as a personal experience with great capacity to mobilize students not only intellectually but also emotionally and affectively." (Zabalza Beraza, 2016, p. 2).

2. The practicum in the context of teacher education

Teacher education plays an important role at Cologne University. Although the university is proud to be in a number of clusters of excellence in the fields of medicine, natural sciences and economics, it is also considered to be one of the biggest teacher education institutions in Europe.

The school system in Germany is a bit peculiar and different from school systems in

almost all other countries. In general, children enter primary school when they are about six years old. After four years of primary school, there are four ways to continue: secondary general school (Hauptschule) up to grade 9 and secondary school (Realschule) up to grade 10 at the lower secondary level and for students who are more practically inclined, and academic secondary school (Gymnasium) and comprehensive school (Gesamtschule) up to grade 13 (lower and upper secondary). Students who successfully complete the final examinations in class 13 (Abitur) are eligible to study at a Germany university. There are also professional schools with the aim to train for practical jobs and schools for children with special needs. A more refined description of the German school system can be found in Eckhardt (2021).

It should be pointed out that all educational training is regulated by state laws and therefore differs from state to state in Germany. I will focus on the situation in North-Rhine Westfalia where the University of Cologne is located.

Students who want to be teachers receive their educational training in the Faculty of Human sciences, but pursue their studies of the subjects they later want to teach in the other faculties, predominantly in the faculty of arts and humanities and in the faculty of mathematics and natural sciences. The teacher education program includes three years of undergraduate studies which are concluded with a bachelor degree (bachelor of arts) and two years of graduate studies upon which successful students receive a master degree (master of education).

There is also a post-graduate training in teacher education (Referendariat). Students who received a Master degree continue for 18 months teaching at a school of their choice, already receiving a salary. They receive guidance from the school as well as from state educational centers. This post-graduate training is finalized with a state examination (for more information, see Kuhn, 2023).

During their studies, teacher students receive guidance from the university's Center for Teacher Education (Zentrum für Lehrer*innenbildung). The center offers counselling, coaching and mentoring for students, in-person as well as online, and provides teacher students with a large array of online information thus helping them to organize their studies as well as their external training practices.

The following two tables show how the practicum is situated in the curriculum for preservice teacher students.

Table 1

Curriculum for undergraduate (bachelor) studies for preservice teacher

| Bachelor of arts (3 years) | Credit points |
|-----------------------------------|----------------------|
| First subject (e.g. mathematics) | 69 CPs |
| Second subject (e.g. biology) | 69 CPs |
| Education | 18 CPs |

| Bachelor of arts (3 years) | Credit points |
|-----------------------------------|----------------------|
| 2 teaching practica | 12 CPs |
| Bachelor thesis | 12 CPs |
| Total | 180 CPs |

Note. Humanwissenschaftliche Fakultät (2022a, p.3).

The information in Tables 1 and 2 relates to students who want to be teachers at academic secondary schools (Gymnasium). Curricula for students who want to teach in other types of schools slightly differ.

Table 2

Curriculum for graduate (master) studies for preservice teacher

| Bachelor of arts (3 years) | Credit points |
|--|----------------------|
| First subject (e.g. mathematics) | 27 CPs |
| Second subject (e.g. biology) | 27 CPs |
| Education | 12 CPs |
| Semester teaching practicum (Praxissemester) | 33 CPs |
| Teaching migrant children and youths | 6 CPs |
| Master thesis | 15 CPs |
| Total | 120 CPs |

Note. Humanwissenschaftliche Fakultät (2022b, p.3).

As can be seen, much importance is given to the subject matters the students later want to teach (138 of 180 credit points in undergraduate studies, 54 of 120 credit points in graduate studies). Studies in the field of education receive less attention, and the same is true of the practicum, although the situation is much better in the graduate studies.

2.1. The teaching practicum at undergraduate level

At the undergraduate level, teacher students are obliged to participate in an orientation practicum and in a practicum in different professional fields. The orientation practicum should

be completed in the first two semesters. During the orientation practicum, students are to attend a school for five weeks in order to experience and reflect on school life from a teacher's point of view (Humanwissenschaftliche Fakultät, 2022a, p.4). Students also take part in an accompanying class at the university which is to help them organize their experiences. They have to complete a portfolio where they document their activities and note their reflections. The portfolio will serve as a base for their evaluations.

The professional fields practicum is supposed to be completed in the fourth semester. It is intended to allow teacher students to engage in educational activities outside school for at least four weeks and to reflect on these. Like in the orientation practicum, teacher students attend an accompanying class at the university and are asked to document their activities and reflect on these in the form of a portfolio (Humanwissenschaftliche Fakultät, 2022a, p.7).

2.2. The teacher practicum at graduate level

During their graduate studies, teacher students have to participate in a practicum that last a whole semester (semester practicum, Praxissemester). In preparation for the semester practicum, students have to attend four different courses during the semester preceding the semester practicum. One of the most important tasks during the pre-semester is to develop a first draft for study project students are expected to conduct during the semester practicum in the school to which they will be assigned. This draft should include the research topic, research question, research design, and suggestions for data analysis and interpretation (Humanwissenschaftliche Fakultät, 2022b, p.7). The underlying idea is that students should engage in a process of investigative learning (forschendes Lernen, Huber, 2009), i.e. their learning activities should be grounded in empirical research (cf. ZfL, 2021) thus helping them to reflect on their own professional development with a scientific mind (Drahmann et al., 2018).

While carrying out the proposed research project is one of the main tasks during the semester practicum, teacher students also take part in school activities like preparing and teaching a class. They are required to keep an eportfolio where they document their activities and reflect on these. At the end of the semester practicum, students are interviewed by representatives from their schools and from centers for practical teacher education (Zentren für schulpraktische Lehrerbildung). At university level, their research reports and their eportfolios are being evaluated as part of the final exam for the semester practicum.

3. An empirical study to evaluate the semester practicum for preservice teachers

The semester practicum was introduced in Cologne university as well as in other universities of North-Rhine Westfalia in 2015. There were practica before, but with lesser duration. To evaluate the impact of the semester practicum, a longitudinal research project "Learning to Practice (LtP)" was carried out by researchers from the universities of Cologne, Paderborn and Siegen in 2016, headed by Johannes König from Cologne university. The project aimed as answering the following research questions:

1. How can the semester practicum be described as a learning opportunity, i.e. how can central characteristics of the semester practicum as a learning opportunity be used to

describe its opportunities, its use and its learning outcomes?

2. Comparing specific characteristics of professional competencies of teacher students at the beginning and at the end of the five months period of the semester practicum, what changes will be observed?
3. How do central characteristics of the semester practicum as a learning opportunity impact the changes in specific indicators of professional competencies of the teacher students? (König & Rothland, 2018, p. 26).

A total of 810 students from the universities of Cologne, Paderborn and Siegen who had enrolled in the semester practicum during the summer semester 2016 participated in the study. They received questionnaires either as online or as paper-and-pencil versions. 588 students filled in the questionnaires before the semester practicum, 631 after; there were 409 students who responded to the questionnaires both times (Darge et al., 2018).

The questionnaires covered different aspects:

1. Individual characteristics like demographic variables, pre-existing educational experiences, professional motivation and expectations regarding the semester practicum.
2. Curricular coherence, i.e. the overlap of university and school curricula, and the degree of agreement of counselling by university and school staff.
3. Making use of the semester practicum as a learning opportunity, like time invested and learning-related activities.
4. Products of learning, with indicators being assessment of one's own teaching and the study project.
5. Output: results of learning: professional knowledge, self-assessment of competence, professional self-concept, self-efficacy as a teacher, flow while teaching, enjoying school, teaching believes, feelings of burnout, confidence regarding choice of profession (Darge et al., 2018).

Based on their empirical findings, the researchers arrived at the following conclusions:

1. School factors seem to be more important for learning activities and their outcomes in the semester practicum than the education provided by the university and the Center for Teacher Education.
2. The mentoring and counseling of teachers in school are of primary importance.
3. The often discussed gap between university life and school life is reflected in the lack of coherence between university and school curriculum.
4. The semester practicum seems more effective in supporting socialization and adaptation to school life than to foster the development of general competencies.
5. There are distinct differences between teacher students with respect to how they handle the demands of the semester practicum.
6. The effects of the semester practicum show more clearly with regard to affective-motivational competencies than with regard to cognitive characteristics.
7. Not all of the objectives of the semester practicum as stated by the Ministry of Education when introducing the semester practicum could be shown to have been achieved (König & Rothland, 2018, p. 43).

4. Discussion

The researchers carrying out the project used sophisticated multivariate methods to capture the complexity of the field. It was not my intention to focus on these or to review all the outcomes of the project; these have been described in detail in the various chapters of the report published by König et al. (2018). Neither did I consider other empirical research on the teacher practicum although I am aware of its existence (e.g. Cohen et al., 2013; Lawson, 2015). Rather, I wanted to look at the project's findings from the point of view that Zabalza Beraza (2016) suggested, namely that external training practices which are part of the study programs of many universities may be viewed (a) as a curricular component, (b) as a learning situation and (c) as a personal experience (Zabalza Beraza, 2016, p. 2).

4.1. The semester practicum as a curricular component

The semester practicum as it was introduced in 2015 is well established in the curricula for teacher education at the University of Cologne. I described this and other external training practices in the context of teacher education in the preceding section. However, as König and Rothland (2018, p.45) note, there is little communality between university curriculum and school curriculum. Teaching and the acquisition of knowledge and skills in university and in school still seem to take place in two different worlds.

4.2. The semester practicum as a learning situation

The study project students were to carry out is considered to be a major learning opportunity. Based on the idea of investigative learning, the study project is expected to help students develop a scientifically reflective approach to their practical work. Research topics included school students (68,5 %), teaching in class (37,0 %), teachers (10,9 %) and school as an institution (7,3 %) (Drahmann et al., 2018, p.123). Students' reports on their study projects were analysed using a content-analytic approach. It would have been interesting to see how they evaluated their study project as a learning opportunity and to know how they self-assessed their learning gains.

Teaching is certainly another learning opportunity. The research project showed that pedagogical knowledge increased significantly over time (König et al., 2018, p.309). Students were also asked to self-assess the quality of their teaching and it turned out that self-assessment of teaching quality correlated significantly and positively with pedagogical knowledge as tested at the end of the semester ETP (König et al., 2018, p. 315). Over time, also general education knowledge and self-assessment of competencies in teaching, educating, assessing and innovation increased significantly (Seifert et al., 2028, p. 336 f.).

4.3. The semester practicum as a personal experience

As mentioned in the introduction, Zabalza Beraza believes that external training practices as a personal experience should have "a great capacity to mobilize students not only intellectually but also emotionally and affectively." (Zabalza Beraza, 2016, p. 2). There are a number of findings in the research project that support his expectation.

Students' professional self-concept was studied with respect to subject to teach, education, diagnosing, innovating, media and counselling. It turned out that over time,

students' professional self-concepts became significantly more positive (Rothland & Straub, 2018, p. 147). Also, students showed a significant increase in their professional self-efficacy beliefs as well as in their conviction that they had chosen the correct profession (Seifert & Schaper, 2018, p. 210).

Students were also asked how much they enjoyed being in school. While their responses were very positive from the beginning, their feelings did not change over time (Darge et al, 2018, p. 251). Nonetheless, teaching may be perceived as being demanding, but emotional exhaustion and lack of achievement decreased significantly over time (Römer et al., 2018, p. 278).

5. Conclusions

The introduction of the semester practicum in North-Rhine Westfalia in 2015 indicates that the teaching practicum is considered to be of prime importance in the teacher education programs that our university offers. Inspired by the publication of Zabalza Beraza (2016) on the practicum in university education, I have analysed the practica that are part of the teacher education programs of our university as well as an empirical study on the semester practicum that was carried out by researchers from our university and from the universities of Paderborn and Siegen. The frame of perspectives that Zabalza Beraza had suggested proved to be very helpful in this endeavor.

At the same time, I had the feeling that Zabalza Beraza and the initiators of the semester practicum differ slightly with respect to how they perceive the objectives of the practicum in teacher education. Zabalza Beraza expects.

- that the practicum should bring teacher students closer to the culture of the profession for which they are being trained,
- that their experiences during the practicum should help them to understand better what they are learning in their university's classes and seminars,
- and that the practicum provides them with educational experiences that are new and complementary to those offered by their universities (Zabalza Beraza, 2016, p.22).

Cologne university has issued regulations which are based on legislation initiated by the Ministry of Schools and Further Education in North-Rhine Westfalia. According to these regulations, after the semester practicum teacher students should be able:

- to plan, carry out and reflect basic elements of teaching and learning in school based on the specific subject sciences, their didactics and educational science,
- to apply and reflect concepts and procedures of assessing achievement, educational diagnostics and individual support,
- to be aware of school's educational goals and to help attaining them,
- to plan, carry out and evaluate theory-based explorations in the context of school and to develop from experiences in school theory-based questions,
- to develop a professional self-concept (Universität zu Köln, 2023, p.5).

It seems to me that Zabalza Beraza's point of view is that teacher students should participate in a school's culture, gaining experiences that are different from the ones they make in the university, but which could help them to arrive at a better understanding of the theoretical knowledge that universities provide. In contrast, the idea of the semester practicum seems to be to help students view their experiences and their activities in school

through the theory-oriented looking glass of their university. It would certainly be interesting to investigate empirically which of the two approaches serve teacher students better.

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