

LEARNING TO TEACH: AN EVALUATION OF THE PREPARATION OF DOCTORAL STUDENTS TO LEAD THEIR OWN TEACHING

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Abstract

Studying in doctoral study programmes of universities is quite often based on individual study plans of PhD students, under the guidance of a supervisor, or with the participation of a consultant. The main content of such studies is systematic creative scientific work with an emphasis on the topic of the dissertation. However, among other things, students usually participate in the management and preparation of teaching in bachelor or master study programmes to the required extent as a part of the study plan. Therefore, it is quite common for the students to teach on top of undertaking their research, and for this teaching practice, they should be provided with quality training on how to teach. In this context, the paper focuses on the multidisciplinary course “Didactic and Presentation Skills” for students of doctoral study programmes of one of the public universities in the Czech Republic. The course mainly covers the basics of university teaching, psychology and other areas that develop didactic and presentation skills of university members as often some will remain at the university in the positions of junior academics and scientists. In addition to the theoretical fundamentals, considerable space is devoted to seminars with video training of skills with their analysis and self-reflection. The aim of the paper is to introduce the current experience of the university institute of a Czech university with the development of doctoral students' competences needed for teaching. Furthermore, the results of the course evaluation in the academic year 2021/2022 from the perspective of doctoral students are presented. Among the topics provided, the respondents themselves attach the greatest weight to practical seminars on didactic and presentation skills, which they put in first place. Theory of communication and presentation skills and educational evaluation and educometrics are also considered essential by respondents, closely followed by the use of digital technologies in education, university pedagogy, psychological aspects of teaching, and activation methods. The study confirms the importance of preparing novice PhD students to adapt in teaching, to feel comfortable in a large auditorium, and to be confident in various situations that may happen at any time.

Keywords: *Evaluation, university education, development of skills, doctoral studies, teaching.*

1. Introduction

Within universities, PhD students have the opportunity, sometimes even the obligation according to their individual study plan, to participate in a range of teaching activities including conducting seminars and tutorials as well as laboratory practical demonstrations.

Teaching during a PhD is a great way to learn a range of transferable skills that are highly valued by employers both on and off campus. Project management, communication, coaching and problem solving are just some of the skills that will be used in any classroom management. Teaching can also help PhD students to learn how to communicate their research findings clearly to a range of different audiences, a critical skill for a successful researcher, etc. While building up vital work experience they can decide if to follow a career in academia (Bradley, 2009; Wilson, 2022). However, in scientific discourses, the question of the possibility or obligation of doctoral students to teach or not to teach is discussed quite frequently, e.g. Homer (2018), Brightman (2009).

Also, the Framework for Researcher Development (CRAC, 2011), for planning, supporting and promoting the personal, professional and career development of researchers in higher education articulates the knowledge, behaviours and skills and attributes of successful researchers and encourages them to reach their potential. To identify the characteristics of excellent researchers, these are expressed in the framework using four domains and twelve sub-domains. These include knowledge, intellectual

abilities, techniques and professional standards to do research, as well as the personal qualities, knowledge and skills to work with others and ensure the wider impact of research. For example, Domain “D” represents “Engagement, Influence and Impact”, including teaching, thus the knowledge and skills to work with others and ensure the wider impact of research. This confirms that PhD students should be effectively supported when involved in teaching, mentoring, coaching, etc.

According to this Researcher Development Framework (CRAC, 2011), in the context of teaching, doctoral students should be prepared and actively involved in:

- contributing to teaching at undergraduate level;
- participation in research meetings (seminars, workshops, conferences, etc.);
- having a developing awareness of research methods;
- influencing and interacting with teaching;
- improving own approach and developing a wider repertoire of teaching styles and techniques;
- being involved in the assessment of student knowledge and supervision of projects;
- contributing to and managing the teaching and learning programmes in the department and contributing to curriculum development in own area;
- leading teaching programmes and their assessment/quality assurance procedures;
- actively encouraging and promoting a culture that links research and teaching.

For example, The University of Bath offers a self-directed course “The First Steps into Teaching” to support the entry of their doctoral students into teaching. The course aims to provide them with a brief introduction to teaching and resources to support them at the start of their teaching pathways (University of Bath, 2022).

Here, the experience of the Institute of Education and Communication of the Czech University of Life Sciences Prague can also be mentioned, which, in addition to developing the competences of academic staff, has more than fifteen years of experience in educating doctoral students of selected faculties, often including those who will remain at the university as beginning teaching and research staff.

The “Didactic and Presentation Skills” course is designed to be multidisciplinary, as an introductory entry and insight into the issues of university pedagogy, didactics and presentation skills. The main aim of the course is to motivate PhD students to be able to reflect on basic didactic principles in their teaching and to be capable of self-reflection and evaluation of teaching in general. It is important for them to be aware of the objectives of their teaching, to be able to self-critically reflect on the verbal and non-verbal features of their presentation, not only in teaching but also, for example, when defending the results of their creative activity in the scientific circles. Therefore, the course includes the basics of university pedagogy and didactics, the basics of educational psychology, the basics of evaluation and educometrics, the basics of presentation skills and rhetoric, and the basics of IT skills in education. Practical training in didactic and presentation skills is absolutely necessary.

The course “Didactic and Presentation Skills” is designed as a face-to-face course with home preparation. It consists of 16 hours of theory and 16 hours of practical training. It includes both theoretical teaching (interactive lectures on selected topics) and practical exercises - microteaching. To intensify education, the PhD students are divided into several parallel groups for the practical training. For each of them a video recording is made, followed by a group analysis and student self-reflection. In this way, necessary aspects of teaching can be highlighted and the positives and negatives of their performance can be pointed out. Students deliver two types of output, namely a demonstration of their own teaching (lectures or seminars), and a presentation of a research report. Students complete the course with a committee examination divided into written and oral parts. Their knowledge and skills are tested, including self-reflection and their possible future use in educational and scientific activities (Němejc et al., 2023).

In this context, the aim of the paper was to introduce the current experience of the university institute of a Czech university with the development of doctoral students' competences needed for teaching, as they need to learn how to teach. Furthermore, the results of the course evaluation in the academic year 2021/2022 from the perspective of doctoral students are presented.

2. Methodology

The survey tool used was a questionnaire focused on the evaluation of the “Didactic and Presentation Skills” course. The purpose of the anonymous questionnaire administered at the end of the course was to find out the subjective opinions of the PhD students about the teaching of the evaluated course in terms of:

- the teacher;
- the comprehensibility of the teaching;
- the duration of the course;
- the relevance of the taught areas;
- and the quality of the learning resources.

The PhD students expressed their opinions on the presented even Likert scale, with a minimum value of 1 and a maximum value of 6. They expressed their opinions on the elements that were included in the course, such as the following topics:

- Activation methods;
- Teaching evaluation and educometrics;
- Communication and presentation skills;
- Psychological aspects of teaching;
- Use of ICT in teaching;
- Fundamentals of university pedagogy;
- and Practical training in didactic and presentation skills in teaching.

Specifically, an exploratory survey sample was obtained from 53 domestic and international PhD students of selected faculties of the university (Faculty of Forestry and Wood Science, Faculty of Environmental Sciences) who had completed the “Didactic and Presentation Skills” course for the academic year 2021/2022.

The return rate of the questionnaires was 100%, with all questionnaires being valid. The data were analyzed using the mean and mode of the scale values for each of the examined areas. The data were processed and interpreted.

3. Results and discussion

The empirical survey deals with the first results of the evaluation of doctoral students of selected university faculties towards their participation in the “Didactic and Presentation Skills” course. The results are presented in Table 1.

Table 1. Doctoral students' opinions on the course Didactic and Presentation Skills (mean, mode - significance, time range, teacher, comprehensibility, learning resources).

Assessed aspects of the course Scale: 1 = minimum - 6 = maximum N = 53	Evaluation of the significance		Overall evaluation of the course (significance, time range, teacher, comprehensibility, learning resources)	
	[mean]	[mode]	[mean]	[mode]
Activation methods	4.83	6	4.89	6
Educational evaluation and educometrics	5.00	6	5.03	6
Communication and presentation skills	5.15	6	5.12	6
Psychological aspects of teaching	4.89	6	4.90	6
Use of ICT in education	4.91	6	4.92	6
Fundamentals of university pedagogy	4.90	6	4.95	6
Practical training in didactic and presentation skills	5.40	6	5.34	6

It can be seen from Table 1 that, among the topics provided, the respondents themselves give the greatest weight to practical training seminars on “Didactic and Presentation Skills” (mean 5.40 for study area significance; mean 5.34 for overall evaluation; modus 6 on a scale of 1 to 6). They put it in first place.

The theory of Communication and presentation skills (mean 5.15 for study area significance; mean 5.12 for overall evaluation; modus 6) and the Educational evaluation and educometrics (mean 5.00 for study area significance; mean 5.03 for overall evaluation; modus 6) are also considered essential by respondents, closely followed by the Fundamentals of university pedagogy (mean 4.90 for study area significance; mean 4.95 for overall evaluation; modus 6), Use of ICT/digital technologies in education (mean 4.91 for study area significance; mean 4.92 for overall evaluation; modus 6), Psychological aspects of teaching (mean 4.89 for study area significance; mean 4.90 for overall evaluation; modus 6), and Activation methods (mean 4.83 for study area significance; mean 4.89 for overall evaluation; modus 6).

Thus, it can be concluded that the most beneficial for PhD students is the practical side of the course and so recording their speech and performance on camera so that they can see what they actually say and do. They evaluate such feedback with elements of constructive criticism very positively, although it may not always be pleasant, especially at the beginning of their teaching experience. The course is therefore very helpful in making them aware of many practical aspects in teaching as they will use much of this directly in their teaching practice. The exemplary interactive learning conditions should optimally serve as a learning environment where students can also confirm whether they will choose an academic or scientific career in the future.

Likewise, the lecturers conduct the courses at a professional level with maximum integration of theory and practice, listening to the needs of the course participants and leading professional discussions with the PhD students. Their aim is to support doctoral students and to strengthen their confidence in conducting their own university teaching and presenting their research results.

The feedback from PhD students shows that they perceive the integration of the course in their study plan positively, especially if they also teach during their PhD studies and therefore they are responsible for lectures, seminars or excursions. They also welcome the opportunity to try out, often for the first time, their research presentation at a conference as well as a demonstration of conducting their own teaching, for which they receive immediate feedback on their verbal, non-verbal expressions and the technical performance of the presentation, as well as a unique opportunity to see their own performance with all its pros and possible shortcomings. The opportunity to experience, observe and share their own and other PhD students' performances in a group is what pushes them in presentation skills, rhetoric and didactics of teaching preparation, including the use of numerous IT tools and presentation environments, and makes them aware of all aspects of university teaching.

4. Conclusions

The Institute of Education and Communication of the Czech University of Life Sciences Prague provides a range of educational activities, it is involved in the evaluation processes of the university and also offers long-term professional development opportunities not only for university teachers, but also for the university's doctoral students. Therefore, emphasis is also placed on social science topics and on lifelong learning. The development of the competences of staff and doctoral students is thus well founded at the university.

As a result of the exploratory survey, the doctoral students of the selected faculties of the university concerned, in the “Didactic and Presentation Skills” course which is a compulsory part of their individual study plan, find the following aspects the most beneficial for their teaching and research activities. The greatest weight is given to Practical seminars on didactic and presentation skills. The theory of Communication and presentation skills and Educational evaluation and educometrics are also considered essential by the respondents, closely followed by the Use of ICT/digital technologies in education, University pedagogy, Psychological aspects of teaching, and Activation methods. It is favourable that all areas are evaluated very positively by the PhD students, and are perceived as very significant for them.

The study confirms the importance of preparing novice PhD students to adapt in teaching to feel comfortable in a large auditorium and to be confident in various situations that may happen at any time. The topic is relevant and the results can be beneficial for future studies and training programmes, however, it will be necessary to monitor and compare the development of the needs also in the context of changes in the educational reality over time.

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