

PEDAGOGICAL PREPARATION OF ACADEMIC STAFF STARTING THEIR CAREER

P. Máchal, D. Linhartová

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Within the development programme of the Ministry of Education, Youth and Physical Training of the Czech Republic the Lifelong Learning Institute at the Mendel University of Agriculture and Forestry in Brno introduced and carried out the educational programme for enhancement of pedagogical competences of young academic workers at MUAF in Brno in 2005. It consisted of two parts – pedagogical-didactical and psychosocial. Its objective was the development of pedagogical competences of the young academic staff. Our contribution explains the definition of the objectives of both parts of this programme as well as its contents. We also present the evaluation of both parts of the programme.

university, academic worker, pedagogical competence, educational programme, evaluation

A university teacher plays a key role in the creation of human resources by successful or less successful preparation of their students. The teacher contributes to creation of general cultural wealth of a society and its economic and educational level. This process demands high professional qualities of the university teachers together with their ability to transform their professional skills and knowledge so that they can bring the effect expected. Good quality placement and competitiveness of university graduates on the labour market as well as an image of the university and public interest in studying at the university are significantly conditioned by the professional qualities of the university academic staff.

The legislative framework for the profession of a university teacher can be found in the Law 111/1998 Coll. from 22nd April 1998 about Universities and about the Amendments of Further Laws where § 70, paragraphs (1) and (2) read:

- (1) *Academic workers are the university employees who carry out pedagogical, research, scientific, developing, art or other creative activities. They are obliged to support good reputation of the university.*
- (2) *Academic workers are professors, senior lecturers,*

lecturers, assistants, lectors and research and scientific workers who participate in the pedagogical activities.

The Law about Universities do not specify the term of university teacher, it uses a new, from the point of view of contents and meaning broader term of academic worker. The text of the Law clearly shows that a significant part of the working activities of an academic worker is their pedagogical activities listed the first in the sum of their duties. Though their professional preparation does not have to be flawless as there is no specific law which states it.

This fact can be considered a luxury which we cannot afford nowadays. It is obvious that a top quality specialist in their branch does not necessarily have an ability to teach as they have to face many problems. Moreover, each working performance in all its parts should be supported by the concrete qualification demands which can be fulfilled by taking a course on a given educational activity.

If we take a look into the area of primary and secondary school systems, we find out that there is a big discrepancy there. Primary and secondary school teachers have to obtain professional and educational qualifications (see Law 563 from 24th September 2004

about Pedagogical Workers and about Amendments of Some Laws), while the university teachers only need university education in the branch which they are supposed to teach at the university.

In 2005, within the development project of the Fond Of Reserves at Universities in the Czech Republic 1869/2005 “*Development of Pedagogical Competence of Academic Workers*” the authors of this contribution were dealing with the problem of the pedagogical preparedness from the theoretical point of view and within the development of Ministry of Education, Youth and Physical Training of the Czech Republic: “*Enhancement of Pedagogical Competence of Fresh Academic Workers*” from the practical point of view. Upon the analysis of the educational activities of the Czech universities and some other EU universities, the educational programme “*Development of Pedagogical Competence of Fresh Academic Workers at MUAF in Brno*” was established containing two basic educational units: pedagogical-didactical and psychosocial.

The objective of this article is, with respect to conclusions of the above mentioned projects, to outline the contents of the educational programme designed for the enhancement of pedagogical competence of university teachers as well as state opinions of its first graduates about it.

MATERIALS AND METHODS

Within the fulfillment of the first particular objective of our task (to outline volume, objective and contents of the educational programme) we used the *indirect document methods* to obtain facts, then the *prognostic approach and the method of modelling* were chosen.

The second particular objective (to express the opinions of graduates about it) was fulfilled by the *assessment of results of evaluational research*.

The *fundamental set* of our research was created by all fresh university teachers who were teaching at the university up to 5 years, though for our needs we chose the *intentional selection set*, represented by 11 fresh academic workers from all MUAF faculties who participated in our pilot educational programme the Development of Pedagogical Competence of Fresh Academic Workers at MUAF in Brno. We chose the *technique of one group* for our needs. During our research we used one of the methods of data collection – *method of inquiry*, where we used *technique of questionnaires and scale*. The data collected had to be classified and analysed. Here the *first grade classification (primary data processing)* was applied, and after quantitative data processing *quantitative analysis, interpreting of data obtained* was applied, and conclusions were stated.

CONCLUSIONS

1st particular objective: To outline the volume, objectives and contents of the educational programme *Development of Pedagogical Competence of Pedagogical Workers at MUAF in Brno*.

With regard to the paradigm of *the society of knowledge* it is imperative to prepare the fresh academic workers for the developing differentiation of their roles in the process of university education. By means of 48-teaching hour educational programme “*Development of Pedagogical Competence of Fresh Pedagogical Workers at MUAF in Brno*” they will be given an opportunity to participate actively in the professional development of the academic profession itself in relation to and to the benefit of their domicile university.

The educational programme includes two primary topical units: *the pedagogical-didactical unit* and *psychosocial unit*. Each of them is divided into 12, 2-lesson subparts. Thus the balance in the development of pedagogical-didactical and psychosocial competences of necessary components of general *pedagogical competence* of fresh academic workers is insured. This supports and fulfils one of the significant roles of current profession of academic workers – the role of university teacher.

The Pedagogical-didactical part of the educational programme contains 12 topical subparts, where each of them is specified by means of primary educational objectives and contents. It is designed as follows:

1. Current problems of tertiary education

Objectives: Ice-breaking
Identification of knowledge and opinion level
Practical experience and active method of teaching
Contents: Political, contextual, legislative, institutional problems of universities
Academic Culture
Interpersonal strategies

2. University teaching, its strategies and determinants

Objectives: Obtaining knowledge, stimuli, motivation for enhancement of teaching itself
Understanding strategies and determinants of university teaching
Contents: University teaching strategies
University teaching determinants
Characteristics of quality university teaching

3. University teaching organisation

Objectives: Obtaining view about university teaching organisational forms

Contents:	Understanding university teaching organisational forms' specifics University teaching organisational forms' survey	Participation, cooperation and collaboration in teaching-learning process Activating university students
4. Problems of conventional university teaching		8. Organization of university study
Objectives:	Considering pros and cons of conventional university teaching Accepting teaching specifics of agricultural, forestry, wood technology, horticultural and economic branches	Objectives: Understanding influence of educational context on educational function and its impact on methodology Realizing flexibility of study paths of curriculum Understanding study strategies if university students
Contents:	Conventional teaching (lecture, seminar, exercise) and related problems	Contents: Bologna Declaration and its impact on university study's changes Multilevel study Modularisation of university study Credit system Study strategies from student's point of view
5. Individualized education and university teaching		9. New approaches to evaluation
Objectives:	Understanding principle of equal educational opportunities and possibilities Gaining knowledge and stimuli for establishing conditions for effective teaching Differentiation of students from the studying interests point of view	Objectives: Accepting evaluation as part of study and feedback Approaching to students' assessments complexly Accepting specifics of assessment of students at MUAF in Brno
Contents:	Virtue of individualized education, institution Individualized education, Keller's plan Group learning and its methods Teaching contract	Contents: Assessment at current university Principles of control and assessment of students' performance Students' assessment of teachers and teaching
6. Projecting university teaching		10. Tools of measuring students' knowledge
Objectives:	Understanding complement objectives, methods, processes and results of teaching Gaining basic knowledge and stimuli for projecting teaching itself	Objectives: Obtaining core of knowledge about didactic university tests Creating didactic test
Contents:	Aspects of student's development and education domains Curriculum projecting, specifics of engineer study programme curriculum Structural contents approaches Taxonomy of teaching tasks and objectives Defining knowledge	Contents: Didactic tests and their construction
7. Change of roles of university teachers and students		11. Students' assessment of teachers and teaching
Objective:	Realizing new role of university teachers and students Accepting change determinants of both university teaching and learning subjects Attempts to include changes of both subjects to university teaching and learning	Objectives: Understanding usefulness of students' assessment of university study Explaining problematic of students' assessment Introducing evaluating questionnaire
Contents:	Determinants of change of university teacher's profession Teaching strategies and university teacher's competence Change of role of university student	Contents: Evaluation of university study Assessing university teachers Assessment questionnaires
		12. Efficient university
		Objectives: Analysing efficient university factors Defining conditions for achieving efficient university Practical experience by activating method
		Contents: Efficient university factors

Psychosocial part of educational programme is designed similarly. Its outline is expressed as follows:

1. Academic profession

Objectives: Understanding core and specifics of academic profession
Understanding differences of roles and competences of academic profession
Specifying university teacher career enhancement

Contents: Academic profession
Professional activities of university teacher
University teacher roles and competences
University teacher career enhancement

2. Personality of university teacher

Objectives: Obtaining information about themselves
Understanding individuality of each personality
Applying basic methods of self-cognition to their own personality
Understanding psychical specificity of university teacher personality

Contents: Psychological problematic of personality
Primary characteristics of personality
Methods of self-cognition and their application
Psychical specifics of academic worker's personality

3. Psycho-hygiene of university teacher

Objectives: Realizing significance of mental health for academic worker
Describing level of teacher's own mental health
Introducing schematic plan of development of teacher's own mental health

Contents: Mental health
Methods of maintaining and developing mental health
Examples of selected relaxation techniques

4. Psychical specificities of university students

Objectives: Understanding stages of human life
Respecting psychical specificities of traditional and untraditional university students

Contents: Basic stages of psychical development of university students
Psychical domains of adolescent age
Psychical domains of younger adult age
Psychical domains of middle adult age
Psychical domains of older middle age
Psychical domains of old age

5. Cognition of university students

Objectives: Specifying influences forming personality of university student
Obtaining information about university students by means of non-test diagnostic methods
Eliminating mistakes in university students cognition

Contents: Formative influences on university student's personality
Basic non-test diagnostic methods
Social perception

6. University students' motivation to learn

Objectives: Understanding complexity of university student's motivation
Obtaining stimuli for appropriate motivation
Teachers' attempting to get positive influence on students' motivation

Contents: Motivation and approaches to it
Students' typology according to motivation to study
Motivation and de-motivation of student

7. University study from students' point of view

Objectives: Understanding students' views on university study
Obtaining knowledge and stimuli for development of individualized education

Contents: University study
Elements and components of university study

8. Learning and its barriers

Objectives: Understanding context, conclusions and types of university student's study
Recognizing study barriers
Obtaining knowledge and stimuli for carrying out efficient study

Contents: Characteristics of study
Principles and conditions of study
Conclusions of study
Types of study
Study barriers

9. Cognitive style and approaches of university students to study

Objectives: Understanding particular cognitive styles of university students
Recognizing possible approaches of university students to study
Using obtained knowledge for preparation of teaching activities

Contents: Cognitive styles of university students
Reasons and approaches of university students to study

10. Social interaction in university study

- Objectives: Understanding attributes of social interaction
 Recognizing variety of behaviours of university students
 Deciphering communication signals of university students
 Understanding possibilities to opening and developing students' – teachers' relations
- Contents: Social interaction in university environment
 Social behaviour
 Social communication
 Social students' – teachers' relations
 Social conformism

11. Listening to and empathy to university students

- Objectives: Obtaining willingness to listen to students
 Understanding empathy to students as preventing students' – teachers' conflicts
- Contents: Listening to and its forms
 Empathy in university environment
 Conflicts and their solutions

12. Creating and forming psychosocial atmosphere and climate at study group

- Objectives: Obtaining knowledge and stimuli for creating optimal psychosocial atmosphere at study group
 Obtaining knowledge and stimuli for positive formation of psychosocial climate at study group
 Understanding of university teacher's responsibility for quality of psychosocial atmosphere and climate at study group
- Contents: Psychosocial atmosphere at study group
 Proportion and role of psychosocial atmosphere agents on its creation
 Psychosocial climate of study group
 Proportion and role of psychosocial climate agents on its existence

Particular topical units were designed so that they can enable the participants of educational programme to obtain fundamental information as well as the pedagogical and psychosocial skills that they can best contribute to the enhancement of their pedagogical work in the university environment. To make teaching as efficient as possible it is necessary not to have more than 15 students in a study group. In such a case it is possible to design teaching methods from the sphere of modern, activating approaches, which can increa-

se personal involvement of participants of educational activities.

2nd particular objective: Expressing attitudes of educational programme participants.

To obtain the feedback of the course graduates to the pilot educational programme "*Development of Pedagogical Competence of Fresh Academic Workers at MUAF in Brno*" we created an evaluation questionnaire they filled in by them after graduation.

The questionnaire contained 12 questions where 6 out of them deals with each of both topical units of the course (pedagogical-didactical unit and psychosocial unit). In the first question the respondents expressed themselves about the criteria of followed topical unit by means of 15-level scale where 5 items dealt with the problematic of subject matter (items 1–5), further 5 items dealt with the methodology (items 6–10), and the last 5 were focused on teacher's preparedness (items 11–15). In the last 5 open questions they could their opinions about the content and extent of each topical unit.

The results of questionnaire provided following data:

1st question:

The graduates of pilot course expressed themselves about 15 items by means of marking 1 number on the scale 1–6. By choosing 1 they considered the given criterion excellent, and by choosing 6 fully unsuitable. The complete assessment of particular items is expressed in the data in Table I.

The assessment of pedagogical-didactical items of subject matter reached the average value 1.89. The items about the methodological character of subject matter reached the average score 2.00 while the items asking about the preparedness of the teacher reached the average score 1.49. Total average assessment of all 15 items reached the score 1.79.

The items in the psychosocial unit asking about the evaluation of subject matter reached the average score 1.47. The methodological character of subject matter reached the average score 1.36 and teacher's preparedness 1.31. The total average score of all 15 evaluated criteria at psychosocial unit reached the score 1.38.

The results lead to the assumption that the pilot course graduates evaluated the quality of both units of the course very high, where only the evaluation of teacher's psychosocial preparedness reached lower value (item 13) and in the case of structure of knowledge (item 3) the evaluation of both parts was identical.

I: Results of average assessment of quality criteria of both units of educational programme

Item	Assessment criteria	PD unit	PS unit
1	Contents of subject matter	2.00	1.27
2	Updatedness of knowledge	2.00	1.64
3	Structure of knowledge	1.45	1.45
4	Sufficient amount of knowledge	2.09	1.45
5	Usability of knowledge in teaching process	1.91	1.45
6	Subject matter methodology	2.09	1.73
7	Understandability of knowledge	1.82	1.27
8	Logics of knowledge	1.64	1.18
9	Variability of teaching methods	2.18	1.54
10	Style of teaching	2.27	1.09
11	Professional preparedness of teacher	1.27	1.18
12	Psycho-didactical preparedness of teacher	1.64	1.27
13	Psychosocial preparedness of teacher	1.36	1.45
14	Advisory preparedness of teacher	1.55	1.36
15	Managerial preparedness of teacher	1.64	1.27

Legend: PD unit Pedagogical-didactical unit
PS unit Psychosocial unit

2nd question: From the point of view of contents you missed (put down):

Only 5 people out of 11 course graduates responded to this question, offering six suggestions. They mainly requested more concrete samples, activating components at the lectures or higher generalization of relations at phenomena given.

Only 3 graduates expressed their opinions about this problem at the evaluation of psychosocial unit. They expressed 5 suggestions in total, saying that they missed the tools of psychological classification of students and academic workers in the lectures, and higher amount of concrete ways of enhancing the quality of study or more methods of university teacher's personal hygiene. Further they missed the information about personality of a man or various approaches to students.

3rd question: From the point of view of contents you considered redundant (put down):

The pedagogical-didactical problematic was commented only by 3 graduates. Mostly they believed that the course contained too much theoretical information about the studied topics.

The redundant information in psychosocial unit was commented only by 2 graduates, each of them had one contribution. They thought that some topics from additional pedagogical course for teaching specialized subject for secondary school teachers were repeated in the pilot course. They also believed that there were too many long discussions.

4th question: You suggest to pay detail attention to contents of topics studied (put down):

Nine respondents offered totally 21 suggestions, 5 out of them were aimed at pedagogical-didactical unit Projecting Lesson, 3 suggestions aimed at Organization Forms of Lesson and 2 aimed at Efficient University. Further suggestions aimed at contents of pedagogical-didactical unit of the course. The brand new suggestion expressed by the graduates aimed at Pedagogy within the University if the Third Age.

Seven graduates expressed their opinions about this question assessing the psychosocial part of the educational programme. They offered 18 suggestions. The most frequently they discussed (6x) the topic Motivation of University Students to Study, then Cognition of University Students (3x), and Psycho-hygiene of University Teacher (2x). The graduates also expressed 7 contributions about the topics Personality of University Teacher, Cognitive Styles and Students' Approaches to Study, Activating Components of Teaching, Approach to Students of Different Nationality and Mentality, Teaching and its Barriers, Self-development were assessed only by one comment each.

5th question: You suggest shortening of these topics (put down):

Five respondents offered 7 suggestions about pedagogical-didactical unit of the course. Most frequently (2x) they suggested shortening of the topic University Study Organization. The interesting fact was that this topic was mentioned in the suggestions about previ-

ous question where it was recommended to be broadened. The graduates expressed their opinions about Organization Forms of Study, Tools for Measurement of Knowledge. The graduates also suggested shortening of topic Current Problems of Tertiary Education and Students' Evaluation of Study and Teachers.

Only one graduate expressed themselves about psychosocial unit of the course offering 2 suggestions. They considered useful to shorten the contents of 2 topics – Cognitive Styles and Students' Approaches to Study and Personality of University Teacher.

6th question: State ideal time schedule of a unit:

Eight respondents evaluated pedagogical-didactical unit expressed their opinions about this question. Most of them (3x) they recommended the same contents, 24 teaching hours, but some of the responses requested increase of number of lessons. Two graduates suggested at least 48 teaching hours while others wanted 30, 50 and 60 teaching hours.

Three out of eight respondents believed the time schedule (24 teaching hours) of psychosocial unit of pilot course was sufficient (2x), but opinions appeared that the number of teaching lessons should increase up to 30, possibly 50 or 84. Overwhelming majority of graduates of pilot course who expressed themselves about this point and who graduated from the course suggested increase of the number of teaching hours in this unit.

SUMMARY

The Czech Republic is facing a massive change of system, which will introduce a framework for the efficient development of its human potential. The Czech universities can definitely find their place there as they offer broad variety of educational programmes and forms (Máchal, P., Linhartová, D., 2005, p. 245).

Education of university teachers should become an important part of the programmes. The university students will be better prepared to find their positions on the labour market if they are taught by well-prepared university teachers whose professional qualities include of all crucial roles – a research worker, an advisor, a manager but also a teacher. Thus the current university human resources can contribute to the enhancement of competitiveness of a university itself.

This conclusion would be most probably supported by the pilot course "*Development of Pedagogical Competence of Fresh Academic Workers at MUAF in Brno*" graduates. Several years after graduation they got a possibility to participate in an educational programme that was deliberately aimed at the development of their pedagogical competence. The positive assessment of the 48-lesson course assured us that it was not a waste of time and effort.

The conclusions of evaluation of this educational programme designed for the fresh academic workers at MUAF in Brno can be summed up as follows. The course graduates stated these facts:

- they appreciated the possibility of participation in the course aimed at the development of their pedagogical competences;
- they demanded clearer focus of the course contents on the skills and knowledge obtained usable at university environment;
- they preferred the activity-bond curriculum of the course;
- they recommended to follow the given time schedule of the course admitting its time expansion.

The experience of the course participants and teachers provided valuable information to the course designers. They will be definitely taken into account in the future innovated educational activities.

SOUHRN

Pedagogická příprava akademických pracovníků na počátku jejich kariéry

V rámci rozvojového programu MŠMT ČR byl v roce 2005 v Institutu celoživotního vzdělávání MZLU v Brně vytvořen a v praxi realizován vzdělávací program ke zvyšování pedagogické kompetence začínajících akademických pracovníků na MZLU v Brně. Jeho součástí byly dva okruhy – pedagogicko-didaktický a psychosociální. V jejich rámci byli účastníci vzdělávacího programu záměrně rozvíjeni v oblasti jejich pedagogické kompetence. Příspěvek vysvětluje jak vymezení výukových cílů obou částí vzdělávacího programu, tak i jejich obsahu. Opomenuty nejsou ani výsledky evaluace obou okruhů vzdělávacího programu.

univerzita, akademický pracovník, pedagogická kompetence, vzdělávací program, evaluace

REFERENCES

LINHARTOVÁ, D.: *Závěrečná zpráva o řešení projektu FRVŠ 1869/2005 – Rozvoj pedagogické kompetence akademických pracovníků*. Brno: MZLU, 2005.

LINHARTOVÁ, D.: *Závěrečná zpráva o řešení rozvojového programu MŠMT 2005 – Zvyšování pedagogické kompetence začínajících akademických pracovníků*. Brno: MZLU, 2005.

MÁCHAL, P., LINHARTOVÁ, D.: Distance learn-

ing: significant part of lifelong education at Mendel University of Agriculture and Forestry in Brno. In „3rd International Conference on Open Distance Learning“. Vol.B, A. Lionarakis (edit.), Patra: Proboros Publishing, 2005, pp. 240–245. ISBN 960-7860-54-3, set 960-7860-52-7

Law No. 563/ 2004 Coll. about Pedagogic Workers.

Law No.111/1998 Coll. from 22nd April 1998 about Universities and about Change and Amendments of Further Laws.

Address

Ing. Pavel Máchal, CSc., Institut celoživotního vzdělávání, PhDr. Dana Linhartová, CSc., Ústav humanitních věd, Mendelova zemědělská a lesnická univerzita v Brně, Zemědělská 1, 613 00 Brno, Česká republika, e-mail: pmachal@mendelu.cz, e-mail: dlinhart@mendelu.cz