

## DEVELOPMENT OF PROFESSIONAL EDUCATION TEACHER COMPETENCES AT THE LATVIA UNIVERSITY OF AGRICULTURE

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**Abstract.** The requirements for education, school and teachers become increasingly varied and complicated. The Latvian education system needs to be changed. The aim of the education reform is to establish a qualitative, accessible, competitive education system. The role of the teacher in studies changes with the economical and labour market changes. It determines new requirements and makes the knowledge, skills and competences of teachers change. To foster the development of teacher skills and acquisition of information, it is necessary to promote further education of teachers. The involvement of Latvia in the today's global processes makes it necessary to substantially reconsider the aims and tasks of the education system – to ensure modernization of the education system and attain the introduction of new education content and methods. The article theoretically and empirically analyses and summarizes the further education experience of teachers at the Centre for Lifelong Education of the Latvia University of Agriculture in 2009/2010. The research target group – professional education teachers. The aim of the article is to justify teacher further education as development of professional and pedagogical competences in ensuring a modern and qualitative study process. The novelty of the research is related to the idea of the professional education reform and optimization of the network of professional schools.

**Key words:** further education, knowledge, skill, competence.

### Introduction

The democratization process of the society emphasizes the question about a more active involvement of education institutions in solving the urgent problems of the society. The dynamic changes in the modern society encourage a purposeful improvement of the education system. Education is one of the fields that is expected to be typical of very high standards. The creative activity and knowledge of a human are those to determine the development of the society.

Orientation of the practical activity towards knowledge is one of the topicalities of the modern society. Education cannot exist apart from the development tendencies of the society provided that the mental potential of the society is one of the main preconditions for surviving in the modern world of rapid changes and being competitive in the field of education. Human mental potential is the most important resource in Latvia, which will determine the development progress of the society.

At present, teacher professional development is topical, as education funding from the state budget and teacher salaries in Latvia tend to drop. No only is teacher professional development topical, but also adequate ensuring of the pedagogical personnel in education institutions matters, which is related to the changes in the age structure of teachers and measures for the optimisation of schools.

The aim of the article is to justify teacher further education as development of professional and pedagogical competences in ensuring a modern and qualitative study process. The need for further education as a new reality needs to be studied. The article theoretically and empirically analyses and summarizes the further education experience of teachers at the Centre for Lifelong Education of the Latvia University of Agriculture in 2009/2010. Further education is one of the opportunities for professional development of teachers. It is the most accessible and flexible solution for working teachers to regularly and systematically follow up the latest trends in pedagogy, to promote accessibility of such education that is based on the needs of individuals, and to enquire what knowledge, skills and competences teachers should improve.

The article proposes the practically implemented solutions for the further education problems of teachers, justifies the analysis, interpretation and assessment of the obtained results.

### Materials and Methods

The study of teacher further education is based on the methodical principles and methods of action research applying particular case study. For analysis, qualitative and quantitative methods have been used – analytical review and empirically descriptive method of data acquisition to study and interpret teacher action, as well as the method of data grouping. Analysis of education related

documents and assessment overviews of the work of teachers have been provided. Personal experience has been reflected as well. The obtained data have been analysed in accordance with the theoretical principles of the research.

The scientific article analyses theories that propose the awareness of the necessity to ensure a modern education process. The theoretical base of the research is developed basing on statements of different foreign and Latvian education researchers, psychologists as regards adult learning, as well as on macro-level documents such as the Declaration of UN Education for Sustainable Development, the European Qualifications Framework for Lifelong Learning and education related laws of the Republic of Latvia. The sources used in the research were as follows:

- Statements about the knowledge society in works of foreign authors and Latvian scientists – M.Castell, P.F.Drucker;
- Theoretical studies of education improvement Dewey, H.Hentig, A.Rauhvarger;
- Polysemy of the notion of competence has been analysed using scientific approaches of several authors R.Arnold, J.A.Keller, I.Maslo.

The research was carried out in 2010 within the framework ESF project ‘Professional Education Teacher Training at the Latvia University of Agriculture’, Contract No 2009/0283/1DP/1.2.1.1.2./09/IPIA/006. The article analyses issues related to the assessment of the need for further education, by general education teachers. To study the strategy of teacher further education and enquire the level of competence improvement, a survey was carried out summarizing assessments of 119 respondents on the implementation of further education courses and influence on the improvement of the work of teachers.

MS Excel statistical functions, data grouping, as well as research methods of analysis and synthesis have been used to process and analyse the research data.

By the help of quantitative and qualitative research methods, the obtained data are arranged to compliment one another and thus ensure a more meaningful view of the research results. The conclusions have been drawn on the basis of logically constructive method.

## Results and Discussion

Forming a democratic education area in the contemporary Europe, which corresponds to the tasks of the 21<sup>st</sup> century, education has to become a component of the process of qualitative changes. Not only is education the process and the final result, but it is also a resource for achieving personal aims and those of the society.

A competitive public development can be ensured by qualitative education and coordinated action of the teachers involved, which have obtained such learning experience that allows assessing situations comprehensively and act freely and adequately.

The Latvian National Development Plan knowledge is classified as a resource or growth. Our main resource to attain the public and individual standard of living typical of the developed countries is knowledge and wisdom of citizens, as well as proficient and purposeful application of knowledge and wisdom [1]. The Latvian National Development Plan emphasises that quality of education and willingness to learn are closely connected with the role of education in the general society and cognition of every individual together with the ability to adequately value the importance of education.

Putting forward knowledge to be the determinant resource for national growth, the human as the creator and carrier of knowledge becomes the main driving force and beneficiary of the development.

On a global scale, researches on education for sustainable development are especially topical in the latest years. In 2002, the UN General Assembly adopted a Resolution UN Decade of Education for Sustainable Development. The decade refers to the period of 2005-2014. Every individual should have opportunities to learn in order to expand their knowledge, skills and attitudes for being able to adapt to the changing, complicated and interrelated world [2].

Integration into the European Union common education area is provided for according to the European Qualifications Framework (EQF).

The documents emphasise the idea of the necessity to increase professional and research qualifications of teachers to develop a competence that ensures competitiveness not only on a European

level, but also on a global level, thus promoting the increase of the prestige of teachers and other actors of the education field.

Change of the education paradigm represents a new education policy which devotes the leading role to the abilities of teachers to re-orientate for being able to work in changing conditions. The role of methodical, systematic and interdisciplinary knowledge of teachers rises substantially. Such knowledge is necessary for a reasonable and advised pedagogical activity. The knowledge society demands substantial changes in the contemporary pedagogical methods. Pedagogy needs to solve the problems of the rapidly changing society. In future, pedagogy as a science will be necessary for practice which is becoming increasingly complicated [3].

The philosopher J.Dewey [4] linked education ideas with the ideas of a democratic society. He has stated that education is a social process. It indicates to a certain ideal of the society, a certain model of life of the society.

Changes in the society are linked to changes in the cognition of teachers, their lifestyle and reconsideration of values. A teacher has to be an active personality that is interested in creative thinking, self-development, improvement of the education environment, as well as is willing to do all of it purposefully. Education is an essential instrument for the development of individuals, society and state.

Analytical thinking skills, the capability of teamwork, independence, self-initiative, professional, methodical and personal competence tend to become of increasingly higher importance [5]. The requirements for the level of proficiency and its development of teachers become increasingly multiform and complicated, as they need to catch up with the rapid acquisition of knowledge, different study approaches, as well as they need to be open for innovations. Today education is not only teaching and learning, but it comprises also lifelong education, mobility, integration, further education, self-assessment and other branches. Establishing a democratic education area in the contemporary Europe, development of the society, social cohesion, the ability to change and develop is necessary [6].

During the learning process, experience is gained in the centre of which active human activity and individual knowledge construction and application is put according to personal needs, interests and aims. The notion experience is understood as the subjective reflected knowledge, skills and attitudes towards the action. The reflected experience is a new state of readiness for action [7].

The opportunities of obtaining qualitative education and improving it on a regular basis are largely connected with the national education policy enforced by provision of appropriate documentation and, especially, implementation in the reality.

Every particular period of time puts forward certain requirements for the human professional activity. The teacher profession is one of the most complicated and responsible fields of professional activity, as the job of teachers influences the lives, value orientation and the need for self-realization of lots of people [8].

Today there are lots of debates about the education quality, teacher professional competence, prestige in the society and attraction of new teachers to the education institutions. Within the pedagogical discussion, the notion of competence is topical, as scientific literature presents diversity of views as regards the understanding, interpretation of competence.

F.Orthey [9] points out that the application of the notion of competence in everyday life encourages perceiving it as an ability that ensures a better, more qualitative action in order to achieve aims of personal importance. This understanding reveals the positive opportunity of the individual to act under specific conditions in different situations of life, and competence is referred to as an ability which can be developed and improved continuously.

Competence is the readiness and ability to perform certain actions which require knowledge and skills for an adequate action in a particular situation [10].

R.Arnold [11], in turn, emphasises the link of the notion of competence with the subject of action, and indicates to the fact that the notion of competence should be viewed according to the approach of personality entirety, the ability for self-organization of a subject, as well as the fact that competence

can be developed. According to the above mentioned, the notion of competence comprises comprehensive, principally unlimited positions of individual activity.

Competence as an analytical category is connected with actions for the achievement of personal aims, and can be applied to determine the level of quality of particular action situations [12]. Competence is the one to determine the twofold human nature – the individual abilities to apply and improve what has been acquired. It is related to a set of abilities to be acquired during activity and can be improved continuously [13]. Competence encompasses the necessary knowledge, professional experience, understanding and ability to apply the knowledge in certain activity [14].

Studying the notion of competence, it can be concluded that it is related to personality autonomy, conscious activity, as well as interactions within the personality socialization processes. Competence should be perceived as a procedural, integrative principle that encompasses the cognitive, psychological and social aspects of human activity. It can be discovered and assessed only within activity – creative realization of multiform situations – the education process, performing the duties, solving extraordinary problem situations, communication with others. Competence expresses a justified proficiency, responsibility for one's own actions and the ability to make decisions. According to the above mentioned, it can be concluded that competence is a combined notion with a comprehensive content. The level of competence indicates to the individual abilities to create and apply knowledge innovatively.

From the theoretical analysis, it can be concluded that teacher professional development is an important factor for the development of the society. When education funding from the state budget is cut, the necessity arises to find resources for professional development apart from it. Latvia as an EU member state is invited to make use of one of such opportunities – encourage teachers to participate in international turnover, for example, projects, exchange of experience in other countries, as well as teachers can attract additional resources from the European structural funds.

There are lots of discussions about teacher qualification, knowledge, improvement of skills and competence. Education for qualitative professional development is ensured by a scrupulously elaborated further education strategy which corresponds to the proposed aims and tasks. When choosing a strategy, it is necessary to consider the possibilities and needs of the target group, course parameters – tasks, content, duration, organizational forms of studies and the expected result.

When obtaining further education, teachers face new pedagogical conceptions, technologies, methods, novelties of study subjects as regards development and use of e-resources and other issues. Acquisition of knowledge, development of thinking skills, activity, growth, obtaining of experience are considered to be important aims. D.Pratt [15] believes that interrelationship is the most important driving force for human growth, but direct personal experience is the most effective type of studies.

Those that work in the education system have the opportunity to expand their knowledge during studies in further education study programmes organized by Centre for Lifelong Education of the Latvia University of Agriculture. The article analyses the development of competences of teachers working in the field of professional education within the general education block. To enquire the viewpoint of the respondents about the role of further education courses in professional development, as well as to assess the work of teachers, an anonymous survey was carried out. In the survey, 119 teachers from all regions of Latvia took part. The respondents were asked to answer to 11 questions related to the quality of further education courses, usefulness of the obtained education, organization of work, assessment of teacher performance by the attendants of study courses and other issues.

The analysis of the composition of teachers involved in further education reveals that the courses were attended by 128 professional education teachers – including 82 females and 46 males. The ages varied from 25 to 65. The questionnaires were submitted by 119 teachers.

One of the questions asked was as to find out why the respondents had chosen to attend further education courses (Figure 1).

The majority of teachers state that they attend further education courses to improve their professional skills. Other reasons (12 %) are connected with improvement of professional skills, requirements of the employers, involvement in ESF project, acquisition and strengthening of knowledge.

As regards the question about whether the aim of the course programmes had been achieved, 73 % of the teachers gave a positive answer “yes”, but 27 % of the respondents indicated that the aim was achieved partly.

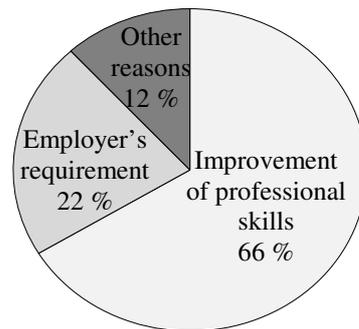


Fig. 1. Reason for attending courses

The question whether the attendants had had an opportunity to actively participate in the implementation of the courses, 97 % of the teachers answered with “yes”, but 3 % of the teachers stated that they had had such an opportunity partly.

A wide choice of forms of studies was proposed, and the respondents were asked to indicate to three the most suitable forms of studies (Figure 2).

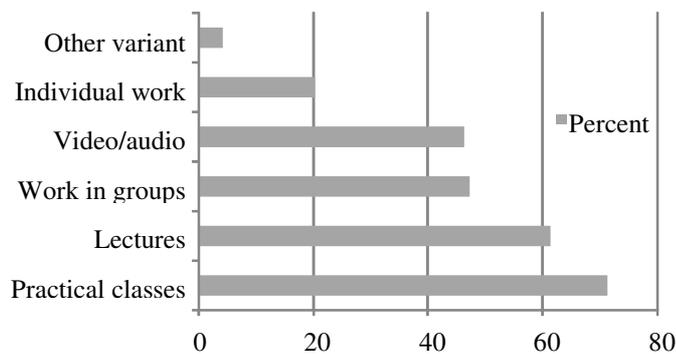


Fig. 2. Most suitable forms of studies

The respondents were asked to answer where they would apply the knowledge acquired in the further education courses. Some of the responses included the following: in the improvement of the study process of the subjects taught (32 respondents), in pedagogical work (31 respondents), in life and everyday activities (26), in self-development (15), in Master's thesis (10).

The feedback of teachers as regards the methodical materials, quality of courses and assessment of work is reflected in Table 1. The respondents were proposed four criteria to assess the implementation of the further education courses.

Table 1

#### Assessment of methodical materials and implementation of the courses

Methodical material and implementation	Assessment, percent			
	Very good	Good	Average	Poor
E-learning materials	53	44	3	-
Usefulness of information	39	55	6	1
Organization of the courses	56	39	5	-
Microclimate of the courses	80	17	3	-

The organization and implementation of the further education courses were generally assessed as very good and good. Competence of teachers was assessed as very good by 82 % of the respondents, but the attitude towards the attendants was praised by 93 % of the respondents.

Interest was attracted by the new communication opportunities of e-learning. The attendants indicated, in their suggestions, that it would be useful if an information technology specialist could be

present during the classes as well. It was recommended that the courses should be organized according to regional principles and within shorter periods of time. The teachers express their willingness to meet representatives of from the Ministry of Education and Science.

The obtained data allow concluding that that it is important for teachers to improve their knowledge, skills and competences as regards the subjects they teach.

### Conclusions

1. Teacher further education is oriented towards the introduction of the latest information technologies in education, increasing the quality of education, as well as formation of an educated society.
2. Education is influenced by common development tendencies of the society – the socially economical and demographic situation in Latvia.
3. Further education and improvement of further education is one of the priority directions of the European education strategy. Teacher professional mastery can influence the quality of the education process, as well as achieve the aims and tasks of the education institutions.
4. The results of the research justify the positive effect of the further education study programmes of the Centre for Lifelong Education of the Latvia University of Agriculture on the development of the competence of teachers. The teachers strengthen and expand their knowledge, skills and develop their professional competence which is manifested by the improvement of education quality.
5. Teachers should be open for innovations in order to ensure the competitiveness of education, as well as correspondence of education to contemporary requirements. The financing of the European Union structural funds for education and science is planned so as to achieve the strategic aim of the Latvian National Development Plan – to promote a balanced, knowledge-based and sustainable development.

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