

STUDENTS' INDEPENDENT PROFESSIONAL ACTIVITY IN PEDAGOGICAL PRACTICE

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Abstract

The topicality of the present research is determined by the need for changes in higher education concerned with implementing the principles of sustainable education. The article focuses on teacher training, highlighting the teacher's profession as an attractive choice of one's career that permits to ensure the development of general and professional skills and an opportunity for new specialists to align with the labour market. The empirical study of students' understanding of their professional activity and of the conditions for its formation was conducted by applying structured interviews (of practice supervisors, students, academic staff); students and experts' questionnaire. A comparative analysis of quantitative and qualitative data and triangulation were used in the case studies. As a result, a framework of pedagogical practice organization was created in order to form students' independent professional activity.

Key words: students' independent professional activity, pedagogical practice, participatory action research

Introduction

The challenge of higher professional education is to create opportunities for individual development of each personality, to train specialists who are aware of the necessity for professional development and able to develop skills that help to adjust to the changing social environment (Key Competences for Lifelong Learning – European Reference Framework, 2008; New Skills for New Jobs: Action Now, 2010). It is significant to be aware of the link between the social aspect and other dimensions of sustainable development, for instance, ecology, economy and culture (Grabovska, 2006; Jamsa, 2006; Mandolini, 2007; Salīte, Mičule, Kravale, Iliško, & Stakle, 2007). A solution of the sustainability problem in the European strategy is viewed as provision of education–research–novelty in the functioning triangle of knowledge. Regarding teacher training, one of the aims of the European strategic framework for cooperation in the field of education envisages to improve the quality and efficiency of education and studies ensuring a high level of teaching to make teachers get proper initial education, ensure continuous

professional development and make the teacher's profession an attractive career (Strategic framework for European cooperation in education and training, 2010).

The problem of the research is determined by the contradiction in society between the aims put forward and their implementation in the pedagogical process. The changing social environment, inconsistency and even discrepancy of political decisions reduce teachers' motivation, feeling of safety and confidence about the sustainability of changes. According to the students' survey, this has a negative impact on graduates' desire to work in the teacher's specialty. The main reasons are students' unconvincing attitude towards the correspondence between the chosen profession and their interests, concerns about insufficient professional skills upon starting independent pedagogical activity, as well as the high level of work quality and responsibility demanded from a teacher combined with the low prestige of the profession.

The issues related to knowledge-based society and sustainable education are especially essential in teacher training. They determine an objective need to explore the opportunities how students can realise independent professional activity during their pedagogical practice in the context of responsibility, professional knowledge and skills, as well as self-awareness improvement. Special attention should be paid to a purposefully organized student-oriented pedagogical process that brings studies closer to professional activity.

The present research aims to explore the independent professional activity formation process among the students of teacher training study programmes. It seeks to find out an answer to the following question: *What determines students' independent professional activity formation during pedagogical practice at schools and higher education institutions in Latvia in the current changing socio-economic situation under the urgent conditions for a personality's self-realisation?* Hereinafter, the present paper provides the theoretical assumptions of the conducted research, design and analysis of the research and conclusions.

General context of research

The philosophical and methodological background of teachers' professional education and activity is the humane paradigm of education (Rogers, 1969; Maslow, 1998; Knowles, 1968, 1990). In humanism, the emphasis is put on using students' experience in acquisition of values created by humankind, reflection on personal experience, continuous openness to experience and students' involvement in the process of changes (Schon, 1987; Marienau, 1999; Moon, 2002; Žogla, 2005, 2008; Salīte, 2009; Salīte, Gedžūne, & Gedžūne, 2009). Attaining learning outcomes is ensured by a student-centred pedagogical process, cooperation and participation in the study process.

Independent professional activity of pre-service teachers is formed during pedagogical practice, which is an organizational form of studies. As a result of theoretical analysis of independent activity (Vygotsky, 1986; Candy, 1987; Gerstner, 1987; Grow, 1996; Rudzitis, 1997; Long & Associates, 2000; Žogla, 2001, 2005; Maslo, 2003; Salite et al., 2009) an answer is found to the research question: *What determines students' independent professional activity formation during pedagogical practice at schools and higher education institution in the current changing socio-economic situation under the urgent conditions for a personality self-realisation?* The formation of students' independent professional activity is determined by one's readiness for professional activity, which is influenced by student's training, action motives, individual characteristics and work environment (Figure 1).

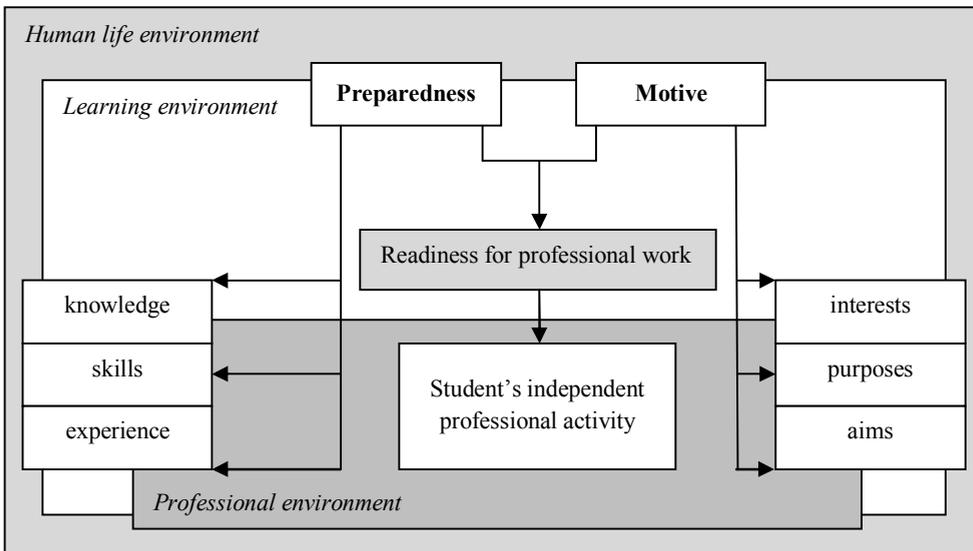


Figure 1. Components of student's independent professional activity formation

Psychologically positive work environment is created by the level of person's independence corresponding to one's knowledge and skills, an ability to make decisions independently, a particular sense of significance, awareness, positive social-psychological interaction and support. This environment can also be formulated as the environment encouraging sustainable development, which supports involvement of all subjects in decision-making and each individual's participation in development.

Nature and structure of professional development

In the research on independent professional activity formation, professional development is viewed in several specific contexts of different theories. Explanations of individual's professional formation in the theories of social psychology (Rogers, 1962; Vygotsky, 1986;

Maslow, 1998) state that professional development and socialisation of a personality are interrelated. Furthermore, humane psychology deals with implementation of personality's creative skills and potentials, understanding of the meaning of one's life. The acmeological approach (Держач, 2001; Анисимов, 2002, Svence, 2003) explores cause-effect relations, tendencies, conditions and factors that influence self-realisation of individual's creative potential and self-actualisation in reaching the peaks of professionalism. Pipere (2003, 2007a, 2007b) relates the development of a personality to the search for one's professional identity.

The structure and characteristics of professional development models (Fuller & Bown, 1975; Кудрявцев, 1981; Dreyfus & Dreyfus, 1986; Huberman, 1989; Kagan, 1992; Geidžs & Berliners, 1999; Moir, 1999; Слостенин, Исаев, & Шиянов, 2002; Роом-Valickis, Saarits, Sikka, Talts, & Veisson, 2003; Зеер, 2004, 2006) show that the formation of independent professional activity corresponds to the period of professional studies and is related to the development of mechanisms that regulate students' communication, creativity and self-expression and readiness for professional pedagogical activity. This period corresponds to the personally-productive and subjectively-creatively-professional study level at a higher education institution (Figure 2).

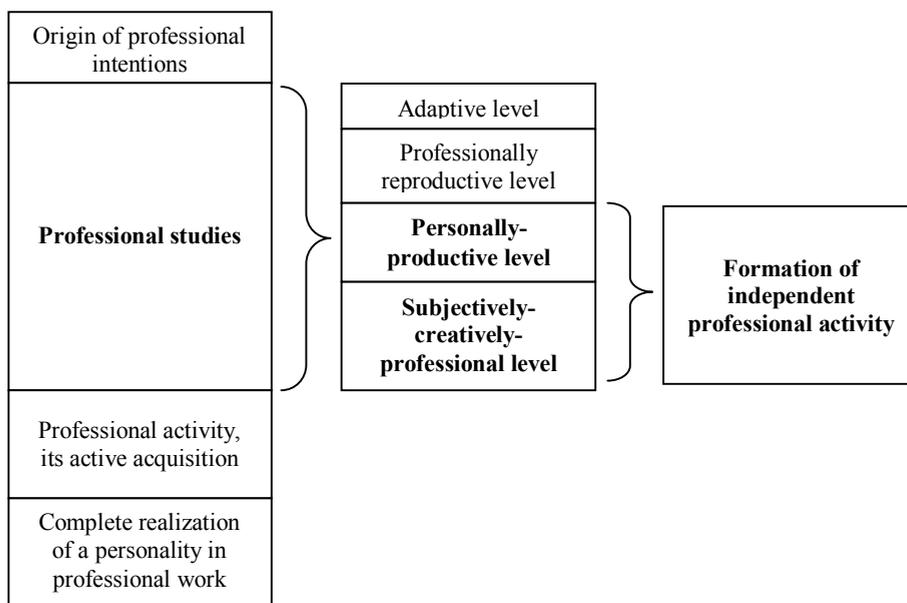


Figure 2. Structure of professional development according to researches of Kudryavcev (Кудрявцев, 1981) and Slastenin (Слостенин et al., 2002)

The theories of professional maturity development substantiate the opportunities for development and growth of personality potential. At the initial stage of the process, prospective specialists need time for development of independent professional activity, as well as adequate assistance and open communicative space. Thus, the analysis of theories guides revelation of research questions, stresses the aspect of humane pedagogy – self-

realisation of a personality in action in cooperation with subjects involved in the practice procedure.

Summarising the findings of various researchers (Huber & Senger, 1942; Blank, Race, & Cipparrone, 1998; Pipere, 2003, 2007; Salite et al., 2009), the structure of professionally oriented personality development is specified and broadened determining the place of student’s independent professional activity (Figure 3).

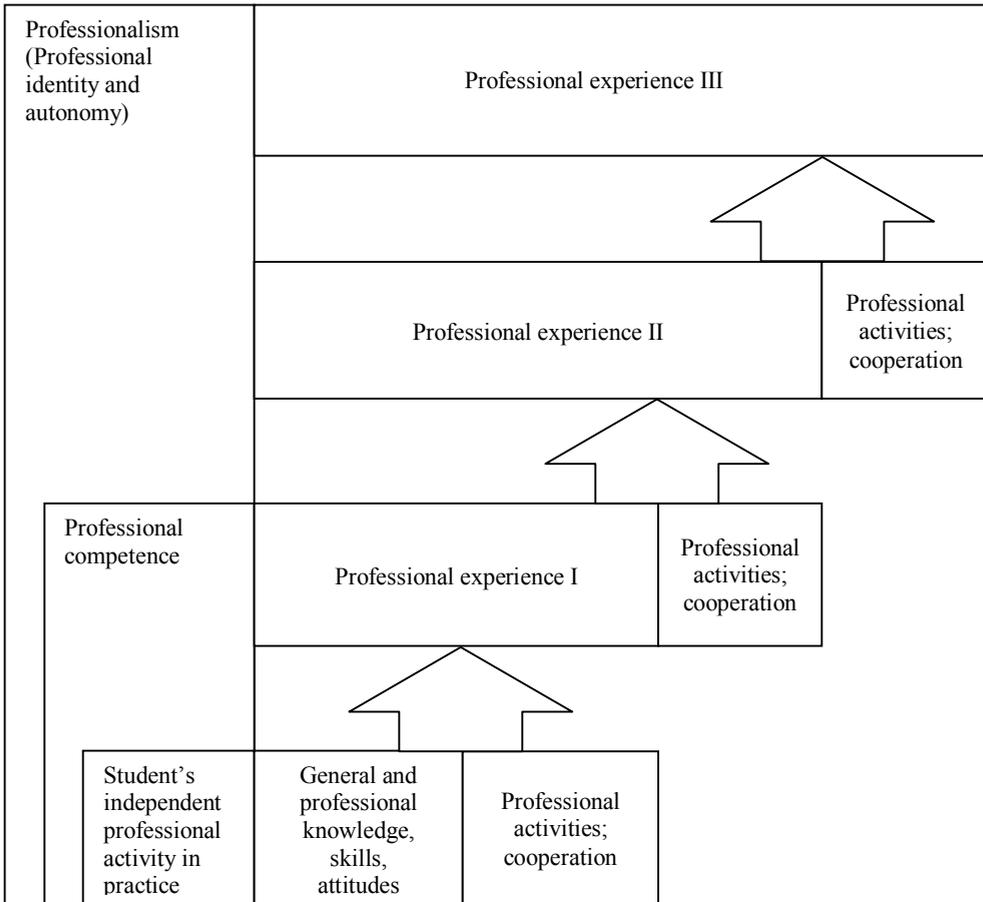


Figure 3. The hierarchy of professional development

Looking at Figure 3 from the bottom, it can be concluded that students’ independent professional activity is formed on the basis of a set of general and professional knowledge, skills and attitudes, including a skill of phronesis, which forms and develops as a result of professional activity and professional cooperation in open communicative space during pedagogical practice. Students’ independent professional activity forms, at the lowest, for instance, a potential level of professionalism. The transition at the level of professional competence and professional identity and autonomy is related to the proportion of professional experience in a person’s life activity, an ability to determine the general

content of activity, which improves as a result of professional activity and cooperation. The specified structure of professionally-oriented personality development substantiates the role of professional education in formation of initial professional experience, indicates the direction of sustainable professional growth and sketches the definition of the notion of students' independent professional activity, which entails professional activity during practice characterised by purposefulness and responsibility in execution of practice tasks and teacher's functions while using the professional knowledge, skills and attitudes, which are analysed, evaluated and developed in the unity of theory and practice, in the process of systematic reflection ensured by regular cooperation of subjects (student–teacher–academic). Independent professional activity is an outcome of the study programme acquisition.

Content and criteria of the notion of student's independent professional activity

Taking into consideration the tasks of pedagogical practice and peculiarities of teacher's work for determining the criteria of students' independent professional activity in the research, a definition of teacher's professional competence by Markova was used and the indicated groups of professional skills, which describe teacher's personality and his/her work structure. A teacher's professional competence is a multi-factor phenomenon that includes the teacher's professional knowledge and techniques for their application in specific pedagogical situations, A teacher's values orientation, integral indicators of his/her culture (speech, style of communication, attitude towards himself/herself and his/her activity, fields of related knowledge) (Маркова, 1996). Moreover, a teacher's professional competence is comprised of functional, reflective, communicative and motivating components (Маркова, 1996).

Students' independent professional activity is characterised by their ability to perform the teacher's duties and tasks in the professional environment. Thus, prospective teachers' readiness for professional activity can be evaluated in comparison to the indicators of teacher's maturity, which are expressed as student's general and professional potential in functional, reflective and communicative skills. Action motives influence the implementation of the skills mentioned above (Table 1).

The determined criteria of students' independent professional activity supplement the focus of the research: *How to describe the notion of students' independent professional activity?* This indicates that the precondition for independent professional activity is the implementation of functional, reflective and communicative skills during pedagogical practice.

The criteria put forward for evaluation of student's independent professional activity include a holistic view on the knowledge and general skills acquired during studies being the basis for development of professional skills while executing teacher's duties in the professional environment; their application is understood more as a process of creating comprehension, a quality dependant on values. It emphasises prior knowledge and skills, active education in cooperation using reflection.

Table 1. Criteria of students' independent professional activity and their indicators according to researches of Markova (Маркова, 1996)

Criteria of independent professional activity	Indicators of criteria
<p>Functional component Planning, organization of the teaching and learning process. Characterises the features related to the choice of a personality independence algorithm – from the choice of the aim, implementation, drafting a plan for application of organizational forms, structuring of teaching and learning time, evaluation of learning outcomes.</p>	Frequency of applying general skills of work planning and organising, consulting and assisting, teaching, managing, administrating, researching, working out and implementing innovations. Frequency of applying the skills needed at the stages of planning pedagogical work, action and evaluation.
<p>Reflective component Includes skills to control the outcomes of one's activity, analyse the level of personal development and achievements. Described by conscious aims of students' independence self-organization vs. internally determined personal motives determining the meaning of action.</p>	Quality of students' pedagogical thinking, reflection in the records of the pedagogical practice report. Frequency of analytical skills application.
<p>Communicative component Includes skills to express one's thoughts clearly and directly, persuade, argument, construct evidence, analyse, judge, provide rational and emotional information, establish interpersonal relations, choose an optimal style of communication in various situations.</p>	Frequency of applying verbal, written, non-verbal and interpersonal communication skills.
<p>Motivating component influences the expression of all criteria, substantiates the interest in professional work.</p>	Categories describing the notion of motives in students' interviews.

The nature of pedagogical practice and the components of students' independent professional activity (sets of functional, reflective and communicative skills) correspond to the phases of action research, for instance, planning, action, observation and reflection (Lewin, 1946/1948; Kemmis & McTaggart, 1982; Kemmis & McTaggart, 1982). The experience of action research in education in the researchers group at Daugavpils University (Salīte et al., 2007) confirms opportunities for extending individual systems of research activities among prospective teachers creating a personal view on sustainable self-development and sustainable education. It indicates an opportunity to apply the structure of participatory action research for developing an organizational scheme for students' independent professional activity formation (Figure 4).

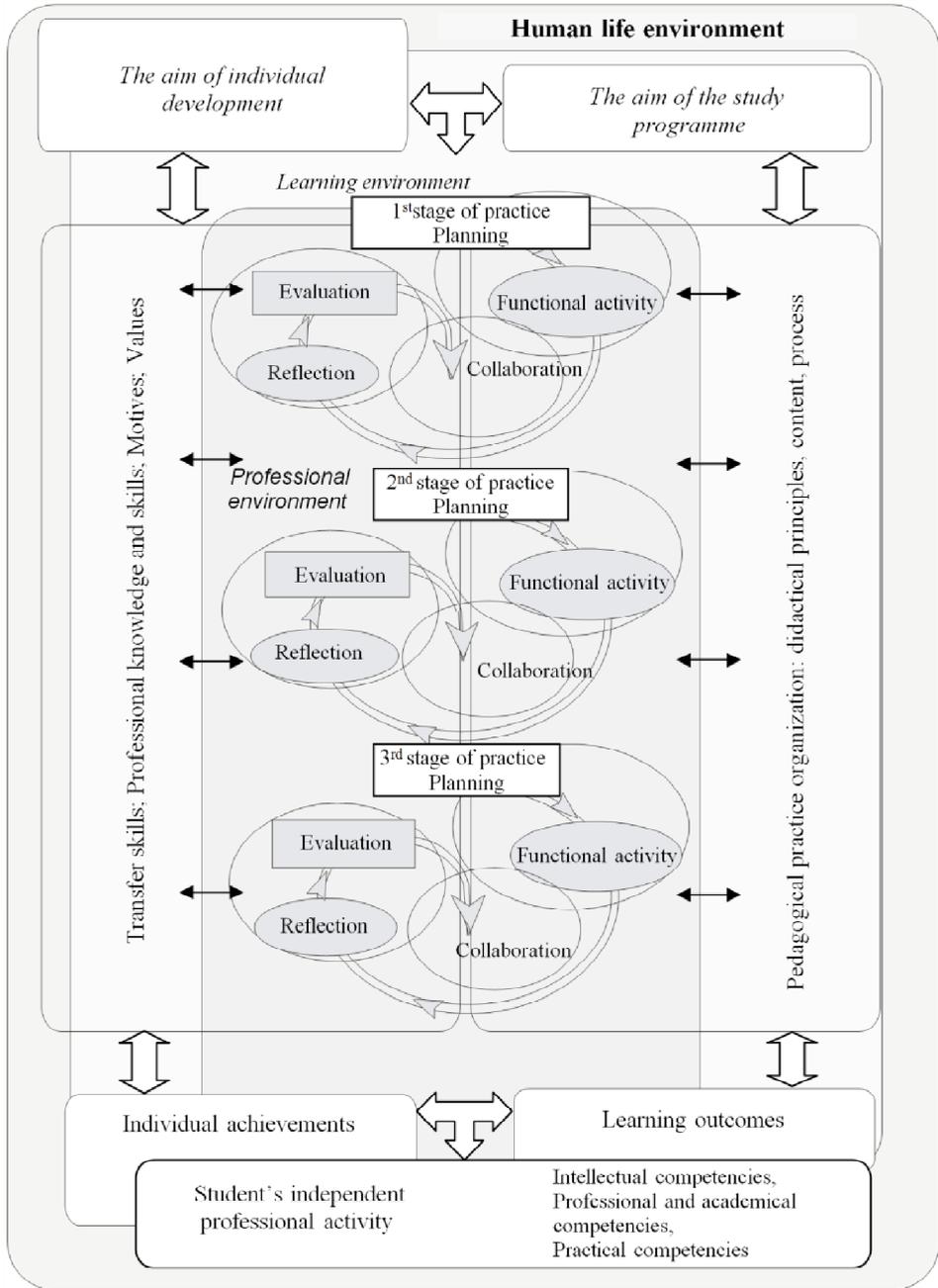


Figure 4. Structure of pedagogical practice according to researches of Kemmis (1988)

Research question and methods

The present study focuses on finding an answer to the research question: *What determines students' independent professional activity formation during pedagogical practice at schools and higher education institution in Latvia in the current changing socio-economic situation under the urgent conditions for a personality's self-realisation?*

In order to trace the answer to the research questions, theoretical and empirical research methods have been employed to identify the problems in teacher training and students' professional activity during pedagogical practice and their solutions. The overview of the research methodology is summarised in Table 2.

215 respondents have been involved in the research on the understanding of students' independent professional activity during pedagogical practice and conditions for its formation.

Table 2. Research methodology

The aim of the research	The issue of the research	Data collection methods	Data analysis methods	The source of the research
Evaluation of the organizational structure of pedagogical practice	What are the strengths, weaknesses, opportunities and threats of practice's organizational framework to the introduction and implementation process?	Experts' opinion method (survey)	SWOT analysis	4 Experts
Research of students' independent professional activity comprehension and conditions for its development in pedagogical practice	What is students' independent professional activity? How do students' character traits influence the development of independent professional activity? What fosters and what delays the development of students' independent professional activity in studies and pedagogical practice? How does a student value his/her own independent professional activity development?	Structured interviews	Distribution of frequencies; content analysis	11 students; 7 teachers as practice supervisors; 8 lecturers
Research of general skills as a precondition for the development of professional skills	What is the potential of student's general skills correspondent to student's professional skills like? How do age and study year influence the results of skills development?	Survey	Distribution of frequencies; Student's t test; Kolmogorov-Smirnoff's Z criteria	196 students

Sequel to Table 2 see on p. 47.

Sequel to Table 2.

Determination of students' independent professional activity criteria	What is the level of students' reflection like?	Case study (survey, documents research, interviews)	Spark-Langer test; content analysis	24 practice portfolios; 11 students
	What is the level of students' functional skills like?	Case study (survey, interviews)	Content analysis	
	What is the level of students' communicative skills like?	Case study (survey, interviews)	Content analysis	

Data analysis and discussion

Experts' evaluation of the structure of pedagogical practice

In order to evaluate the correspondence of the structure of pedagogical practice to the process of practice and achievement of students' independent professional activity as a learning outcome, the method of experts' opinion was used. Four experts from four higher education establishments of Latvia participated in the research (Table 2). The choice of experts was determined by academic and professional competence of the respective respondents, their experience in teacher training at higher education institution and in practice places. According to the principle of SWOT analysis, the experts evaluated internal (strengths and weaknesses) and external (opportunities and threats) factors of the pedagogical practice structure. The experts appreciated the theoretical and organizational standpoints used in developing the structure of practice, for instance, application of a holistic approach and an action approach; a competence approach to the development of students' independent professional activity; perspective of cooperation context in the pedagogical process; purposeful planning of a student-centred process; orientation to activation of students' self-experience; respect of aspects of this research in the development of independent professional activity.

The scheme of the pedagogical practice structure was considered to be well understandable as, representing a holistic process, it was structured stressing the relation of individual components, influence and orientation. The quality of practice implementation is facilitated by observation of action cycle, including reflection in each stage, which has a significant role in the analysis of individual professional activity, evaluation of each stage and providing adjustments in further activities. The scheme of practice organization reveals an opportunity to use students' prior experience in the acquisition of new knowledge and skills; cooperation of subjects involved in the study process and reflection on action and its results to determine new tasks for individual's development. In general, the implementation of practice provides a link between theory and practice, achievement of students' individual development and study programme aims. The experts' evaluation shows concern about the readiness of professional work environment to ensure completely continuous implementation of independent professional action components, which is influenced by

economic and political changes, limit of paid contact hours for students' pedagogical practice in the workloads of the academic staff and teachers. The procedure of practice can be endangered by an insufficient level of students' experience and pedagogical skills; inadequate students' self-evaluation; lack of motivation; insufficient support and encouragement during practice; changes in the individual development and aims of study programmes caused by subjective or objective factors.

In general, the experts see opportunities to improve collegial cooperation (student–teacher–academic) at the synergy level, taking into consideration the peculiarities of students' independent professional activity formation and in compliance with the aims and tasks of pedagogical practice of the specific academic year, thus enriching students' professional identity and the professionalism of involved subjects. The cyclical structure gives an opportunity to adjust it to each student's individuality (subjective and objective factors). Furthermore, the scheme of the model can be creatively supplemented observing its essence. The developed scheme of practice procedure (Figure 4) hints the improvement of methodological guidelines for practice and development of qualitative differences for each stage of practice.

The updated structure of the study procedure and an approach to educational and training processes, which evaluates each person's individuality and singularity, respects and develops talents, teaches to take risks and learn from one's own mistakes, leads to a new contemporary quality of the humane pedagogical process, which substantiates the role of human values, self-reflection and cooperation under changing social and economic circumstances.

In order to explore the understanding of students' independent professional activity and conditions for its formation, the research was conducted to:

- study the understanding of students' independent professional activity;
- analyse teachers–practice supervisors' opinions;
- find out views of academic staff on students' professional training;
- study general skills as a basic condition for formation of professional skills;
- determine the criteria for students' independent professional activity.

Empirical research of understanding students' independent professional activity

Using structured interviews, the students' (n=11) opinions were traced about their independent professional activity during pedagogical practice, its dynamics, potential of necessary professional knowledge and skills, procedure of pedagogical practice and its improvement, students' attitude towards the chosen profession. Evaluating the expressions of independent professional activity formation as reflected in students' interviews, it can be concluded that the formation of independent professional activity during pedagogical practice is influenced by students' interest in the chosen profession, interest in the subject, confidence about the suitability of the chosen lesson plan, successful cooperation with pupils and practice supervisor. Students are the least confident about their independent professional activity in formal evaluation of pupils' works, but they are the most confident about their skills in selection of content and visual aids corresponding to the theme (n=10).

Content units, categories and notions identified during the interviews confirm the individual progress of students' independent professional activity formation being influenced by the motives for the choice of the profession, character traits, functional and reflective skills in teacher's work and cooperation.

Analysis of teachers practice supervisors' opinions

Teachers' interviews (n=7) were conducted to find out the view of practice supervisors on students' independent professional activity formation during professional practice, the conditions facilitating and impeding it, involvement in practice procedure, suggestions for improvement of professional studies. The method of a structured interview was applied to conduct a qualitative research.

Summarising the opinions expressed by the teaching practice supervisors, it can be concluded, firstly, that the practice supervisors understand students' independent professional activity as student's professional activity without the participation of teachers' practice supervisor at the lesson at the final stage of practice, providing consultations and methodological support in preparation of the lesson upon necessity. Secondly, students' communication skills have been mentioned as the most significant ones since they facilitate communication with pupils, ensure feedback on learning outcomes at the delivered lessons and solutions of professional activity and development issues significant for students in cooperation with a practice supervisor and facilitate the formation of independent professional activity. Thirdly, practice supervisors acknowledge that the expressions of students' independent professional activity are related to action motives, determination, responsibility, initiative, skills to plan and implement self-education, skills to summarise the ideas obtained in the process of cognition and action and apply them in professional development.

Academic staff's view on students' professional training

In the structured interviews, the academic staff (n=8) answered questions about the acquisition of students' general and professional skills, their evaluation of the study courses they had delivered, compliance of the tasks of a study course to the tasks of practice, their involvement in supervision of pedagogical practice, development of practice tasks and guidelines and participation in practice conferences.

On the basis of the analysis of academic staff's interviews and suggestions the following conditions for organization of pedagogical practice can be put forward: (1) unity of pedagogical practice; (2) didactic competence of academics-practice supervisors; (3) cooperation between the school and the higher education institution (academic-student-practice supervisor); (4) cooperation of academic staff within the department, faculty: discussion about tasks and guidelines and their improvement; harmonised management of practice stages; participation of academic staff involved in the study programme in the final practice conference.

Research of general skills as a basic condition for the formation of professional skills

Basing on the conclusion that the formation of professional skills is determined by the potential of student's general skills, the level of general skills significant in the formation of students' independent professional activity was determined by analysing the influence of internal (age) and external (duration of studies) factors. In order to determine students' general skills, a questionnaire of transfer skills by Knox and Butzel (Knox & Butzel, 2002) was adapted. 196 students of the Faculty of Pedagogy of Rezekne Higher Education Institution filled in the questionnaire. The compliance of the groups of skills included in the questionnaire to the criteria of independent professional activity is summarised in Table 2.

Table 2. Compliance of general skills to the criteria of students' independent professional activity

Functional skills	Communicative skills	Reflective skills
Plan and organize	Verbal communication	Analyse
Train/consult	Non-verbal communication	
Leadership	Written communication	
Management	Interpersonal relations	
Administrative	Counsel and serve	
Research		
Create and innovate		
Construct and operate		

Quantitative data processing methods were used in the analysis. The comparison of the arithmetical mean was made by a Student's criterion (t). The obtained data shows that, from the first to the fifth year of studies, no unequivocal development of the levels of skills can be observed. It is possible that the level of skills is influenced by the obtained education and corresponding work experience because the indicators of skills among Master students significantly differ from the indicators of skills among the students of other study years.

The analysis of variance or *ANOVA* was used to find out if the variances (for instance, distribution of values) of two samples have statistically significant differences. In this case, the independent variable – the study year, the dependent variable – the indicators of general skills. The obtained results (Table 3) indicate insignificant differences between the indicators 1, 4, 7, 8, 10–15 of general skills. It substantiates the null hypothesis that the indicator of general skills development does not depend on the duration of studies, thereby proving the peculiarity of each individual's development.

Table 3. Results of variance analysis of the levels of skill groups and duration of studies

No.	Dependent variable	Independent variable	Conclusions
		Year of study	
1.	Verbal communication	$p=0.491 > \alpha=0.1$	not significant differences
2.	Non-verbal communication	$p=0.016 < \alpha=0.05$ 1 st y. & 6 th y. $p=0.019$ 5 th y. & 6 th y. $p=0.018$	differences were significant with probability of 95%
3.	Written communication	$p=0.172 > \alpha=0.1$	not significant differences
4.	Train/consult	$p=0.476 > \alpha=0.1$	not significant differences
5.	Analyse	$p=0.007 < \alpha=0.05$ 1 st y. & 6 th y. $p=0.013$ 3 rd y. & 6 th y. $p=0.041$	differences were significant with probability of 95%
6.	Research	$p=0.029 < \alpha=0.05$	differences were significant with probability of 95%
7.	Plan and organize	$p=0.423 > \alpha=0.1$	not significant differences
8.	Counsel and serve	$p=0.141 > \alpha=0.1$	not significant differences
9.	Interpersonal relations	$p=0.007 < \alpha=0.05$ 5 th y. & 6 th y. $p=0.016$	differences were significant with probability of 95%
10.	Leadership	$p=0.076 > \alpha=0.1$	not significant differences
11.	Management	$p=0.346 > \alpha=0.1$	not significant differences
12.	Financial	$p=0.710 > \alpha=0.1$	not significant differences
13.	Administrative	$p=0.659 > \alpha=0.1$	not significant differences
14.	Create and innovate	$p=0.201 > \alpha=0.1$	not significant differences
15.	Construct and operate	$p=0.398 > \alpha=0.1$	not significant differences

A statistically significant difference (probability of 95%) is seen in the groups of skills – non-verbal communication, analysis, research, interpersonal relations. In this case, the null hypothesis can be rejected. The comparison of general skills indicators among the 1st, 2nd, 3rd, 4th and 5th year and Master students has statistically significant difference in all cases, and it indicates a higher value of the corresponding general skills in the Master students group. Obviously, it is related to these students' life and work experience because Master students have already received higher education and experience in a certain professional field.

Considering students' age as an independent variable and analysing differences between respondents' skill levels in three age groups, p-value exceeds 0.05 meaning in all cases. Thus, with the probability of 95%, it can be acknowledged that the age group factor is not significant among the indicators of general skills levels.

Summarising the empirical analysis of the questionnaire data, it can be concluded that:

- General analysis of variance indicates insignificant differences of the indicators of general skills among the 1st–5th year students because the dynamics of each individual's skills development is influenced by his/her prior experience, personal features, peculiarities of understanding the content of studies and interaction of subjects. In some cases, a significant difference is seen among the indicators of master students' skills. It substantiates the role of education and professional experience in the development of general and professional skills.

- Summary of the questionnaire results indicates the necessity to pay attention to the acquisition of students' problem-solving, project development and management skills in the study process, which facilitates the professional competence of graduates and leads them to sustainable professional development.

Analysis of a case study on students' independent professional activity

The research sample comprises 11 fifth year students of Rezekne Higher Education Institution second level professional higher education study programme *Teacher of Household and Housekeeping and Basics of Business Economics*. In the present research, a document analysis and a questionnaire were used for case studies of independent professional activity criteria identification.

Several cases were analysed, considering each student's independent professional activity formation. However, since the analysis of several cases was used, it was crucial to observe all these cases as a unity and see the interrelationship.

The case study was conducted basing on the analysis of students' independent professional activity criteria (functional, reflective, communicative skills and motives for action), taking into consideration the impact of individual psychological peculiarities on the expressions of independent professional activity during pedagogical practice. Determining common trends, it can be concluded that:

- the highest level of the criterion functional skills is characterised by the indicator – planning skills, the lowest level – work organization skills, proving insufficient professional work experience during studies;
- the indicators of the criterion – reflective skills – in the records of the practice portfolio show an insufficient development of students' reflective skills caused by formal completion of practice documentation, poor cooperation with a practice supervisor to instigate reflection and lack of the tradition of reflection in the process of study organization;
- the indicator – written communication of the criterion communicative skills – has the lowest level, but the highest indicators, for instance, of the fifth level are observed in the group of oral communication skills. The obtained results confirm that students are reluctant to complete the written tasks of practice, prepare lesson plans and engage in profound self-analysis. However, communication, including oral communication, does not pose any difficulties to the majority of students;
- action motives during pedagogical practice – interest in the chosen profession, content of a subject, desire to test himself/herself in a new situation – positively influence the attitude towards the tasks of practice to be completed, the acquisition of professional knowledge and skills and facilitate independent professional activity.

An evaluation of the analysis of individual cases confirms different indicators of independent professional activity criteria in each individual case. It reveals the necessity to implement a student-centred study process in teacher training, highlighting students' experience and needs. It corresponds to the ideas of humane pedagogy and the designed structure of students' independent professional activity formation, where independent professional activity is encouraged by the interaction of subjective (student's motives, personal features, experience, knowledge, skills) and objective (study process organization) components.

Conclusion

The guidelines for students' independent professional activity formation were developed on the basis of value, content, action and structural preconditions of teacher training in the following fields:

- facilitation of student-centred and socially-oriented activities during studies;
- application of an action research approach to the formation of students' independent professional activity;
- application of the unity of theory and practice in study courses and pedagogical practice.

These preconditions can be used as recommendations for designers and organizers of professional study programmes to facilitate the development of sustainable education.

Value aspect:

- Exploration and formation of students' values determine the content of pedagogical education in the interaction of personal and professional development. Teacher training shall provide the formation of pedagogical values of specific professional activity.

Content aspect:

- Students' general, subject-related and pedagogical-psychological training being the result of the study programme acquisition and academic staff's work shall ensure not only sustainable teacher education, but also the development of a personality capable of fitting and adapting to the changing contemporary society.
- Observation of the principle of the unity of theory and practice in the context of teacher's specialisation based on a specific subject(-s) shall form students' professionally-pedagogical position, thereby eliminating detachment of subject-related and pedagogically-psychological study courses.
- As a result of completing problem-solving tasks, knowledge shall be broadened and widened and phronetic skills shall be developed, thus facilitating students' independent and self-educating activity and creating an optimal programme of students' independent activity.
- Students and academic staff's mutual action under the conditions of information exchange and communication creates prerequisites for

professional communication, common teaching methodological activity and transition to a regime of students' and academics' activity, as well as facilitates professional development of both parties.

- Under the conditions of democratisation in society and humanisation in education, special attention shall be paid to students' psychologically-pedagogical training and their readiness to organize pedagogical activities.
- Psychological training content based on the student-centred approach shall envisage:
 - development of students' reflective skills that facilitate awareness of one's own individual psychological features and other subjects of the educational process, action procedure and results;
 - exploration and understanding of one's own psychological resources;
 - conscious use of individual characteristics in further professional activities on the basis of the individual action style formed during studies;
 - skills to interact with all subjects of the educational process.

Action aspect:

- In the professional context, pedagogical training shall envisage optimal harmonisation of theoretical and practice knowledge and, rather than being concerned only with acquisition of knowledge, shall focus of the educational process and the development of thinking, reflective, communicative and functional skills, mastering of technologies using individual and group work in acquisition of professional knowledge and skills, as well as the link between the content to be acquired and pedagogical problems.
- Students' skills corresponding to the basic skills of social demand in the intellectual, communicative, informative, public and personal field, as well as professional functions related to scientific research, informative and reflective activity shall become the criterion for work effectiveness of academic staff.
- Supervision of pedagogical practice shall be entrusted to professional and competent academic staff who have a high level of knowledge and culture, as well as cognitive scientific activity, works both individually and in teams ensuring support of students and teachers as practice supervisors in practice places and participation on systematic basis in the analysis of students' professional activity and development of further tasks of their development.
- During pedagogical practice students shall have an opportunity to master behaviour of the professional role, which will be the leading one in their professional activity, as well as an opportunity for self-expression, application of their skills, experimentation and use of a research approach in their work and personal development. It will facilitate the formation of students' independent professional activity, pedagogical thinking, pedagogical reflection and professional orientation.

Structural aspect:

- The organizational structure of higher pedagogical education shall be improved by ensuring regular cooperation with educational establishments, thereby creating a support network of professional practice supervisors.
- The structure of the study programme shall comply with the principle of regularity and continuity in acquisition of professional knowledge and skills and will provide a link to the tasks of pedagogical practice.

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Acknowledgement:

This study was supported by ESF project “Support to Implementation of Doctoral Studies at Daugavpils University”, agreement No. 2009/0140/1DP/1.2.1.2/09/IPA/VAA/015

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