FACILITATION OF REFLECTION FOR SELF-DEVELOPMENT OF COMPETITIVENESS OF UNIVERSITY STUDENTS AS PROSPECTIVE SPECIALISTS

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Abstract. Self-management is one of the structural components in the competitiveness model of the students as prospective specialists. Reflection is one of the most important elements of self-management, indication of competitiveness and the self-evaluation process as well. The aim of the research was to analyze and evaluate the theoretical aspects of reflection, including self-evaluation, for facilitation of self-development of prospective specialists' competitiveness. Reflection is important for the personality's self-management, which was analyzed from two perspectives: 1) management of professional development and 2) self-management of the career. Reconciliation between self-evaluation of his/her professional activities and their outcomes and evaluation of others is an essential process that creates and develops students' responsibility and ownership. Reflection is an important pre-condition for facilitation of self-development of prospective specialists' competitiveness. Portfolio is one of the pedagogical tools for facilitation of reflection and self-development of competitiveness of prospective specialists in the study environment at university.

Keywords: self-development of university students' competitiveness, self-evaluation, self-management, reflection, portfolio.

Introduction

Nowadays, one of the educational imperatives is the requirement to help an individual to live and implement self-realization. The emphasis is transferred from the knowledge of facts and pedagogically managed studies to critical thinking, when selecting and acquiring information, to experience-based education, as well as to self-managed and self-directed professional and career development, as well as to the educational process.

Viability of an individual as a personality, a member of society and also as a specialist under the changeable labour market conditions becomes very important. Thus, one of the fundamental functions of the study process implemented at the higher education institution comes forward, namely, the support for self-development of prospective specialist's competitiveness.

The authors of the article ground our studies mostly on the *synergetic approach* in the educational research, which enables to draw the basic conclusion that development of competitiveness, first of all, is a self-developmental process, because a human being is a complex, self-developing and self-organizing system striving to ensure own viability under the conditions of changing environment. The synergetic approach becomes more and more topical to ensure liberal educational environment for the university students [1]. Using the synergetic approach as a basis, we have integrated the self-management component into the structural model of students' competitiveness as one of the components of competitiveness.

One of the important preconditions for self-development of prospective specialists' competitiveness is reflection – a process as a result of which the student performs self-evaluation of his/her competitiveness. Thus, within the context of self-development of students' competitiveness, we have attributed an important role to reflection and self-evaluation. During the study period there shall be ensured conditions for obtaining of reflection and self-evaluation experience, as well as for development of reflection competency. The self-evaluation, obtained as a result of reflection, becomes the basis for the next stage of professional development, because professional development is a lifelong process with cyclic nature, and, as a result of this process, the specialist's competitiveness is developed.

Nowadays, *the constructivism approach* enables to ensure efficient study process [2], within which the university students' self-directed studies are very important. The self-directed studies are a target-oriented, motivated study process, within which self-cognition and self-evaluation, as well as obtaining of new experience are particularly important.

In this article the emphasis will be placed on the principle of *reflection facilitation*. We attribute an important role to it within the process of facilitation of self-development of students' competitiveness.

In order to facilitate self-development of students as prospective specialists' competitiveness, there shall be ensured favourable study environment for such development; therefore, we ground our research also on the *ecological approach* [3]. In order to help the university students as prospective specialists self-evaluate their competitiveness through reflection, it is important to substantiate the concept *reflection* scientifically. This concept, according to its meaning, is a multidimensional category. The reflection is both a part of the component of competitiveness self-management and an indicator of competitiveness, as well as a process, and an important precondition for the self-development of competitiveness. An important place in this article has been given to *portfolio*, which is one of the pedagogical means for facilitation and promotion of reflection that helps to facilitate self-development of competitiveness in the university study environment. Portfolio envisages both *reflection as a process* and *self-evaluation* of competitiveness *as a result*.

The aim of the research: to develop the theoretical basis of facilitation of reflection, including self-assessment, of students as prospective specialists in the study environment for self-development of their competitiveness.

Materials and methods

One of the important tasks within the study process at higher education institutions is provision of environment appropriate for development of prospective specialists' competitiveness. For this purpose there were the conceptual approaches selected: *constructivism-based approach; ecological approach; synergetic approach*.

In this article two significant aspects of the performed theoretical research have been viewed:

- reflection as both a part of the component of competitiveness self-management and an indicator of competitiveness, as well as a process and an important precondition for the self-development of competitiveness;
- *portfolio* as a pedagogical means in the study environment of a higher education institution for facilitation of prospective specialists' competitiveness.

Methods of the research: study, analysis and evaluation of scientific literature; reflection of the authors' exploratory, academical/pedagogical experience.

Results and discussion

Reflection within the context of self-management

In order it would be possible to substantiate scientifically reflection as a part of the self-management component of the structure of prospective specialist's competitiveness, at the beginning we will explain the concept of *self-management*.

In the psychology science very often the concept *psychic self-regulation* is used. Alongside with psychological self-regulation it is possible to find in the publications also the concept of *psychological self-management*.

- B.V. Zeigarnika together with colleagues wrote about the development of self-regulation as conscious management of one's own behaviour [4].
- J. D. Homska points out that by the spontaneity of higher psychic functions is meant the wilful opportunity to manage the psychic functions [5].

In the theory of cybernetics, management and regulation are related as an entirety and a part. Management means implementation of such influence (chosen out of many possible based on the particular information) that facilitates the achievement of a previously set aim. The management process is characterized by the following stages: 1) collection and processing of information; 2) decision-making; 3) implementation of the decision; 4) control.

As regards the concept of *regulation*, it has narrower meaning, namely, adjustment of the managed system according to the set functioning norms, rules, parameters, in case of deviations. It is a mechanism for stabilization of the system or its functioning [6].

G.S. Nikiforov also finds that: 1) self-management of psychic processes shall be viewed broader than the self-regulation processes; 2) self-management and self-regulation of psychic processes are related as an entirety and a part [7].

By self-management of psychic processes, the scientist means an individual's conscious influence on the psychic phenomena (processes, conditions, and qualities), actions, his/her behaviour characteristic to him/her, in order to retain or change the nature of the process.

By self-managed or self-directed learning (in German selbstgesteurtes/ selbstorganisiertes/ selbstreguliertes/selbstbestimmtes Lernen) is meant the process of learning, when an individual takes the initiative and acts with/without others' assistance [8; 9].

Self-directed studies have cyclic nature, where the following fundamental stages could be identified:

- planning of independent studies (determines the needs of own learning; identifies the aims of learning; identifies the necessary resources, including human resources, material resources);
- realization of independent studies (chooses and uses the corresponding learning strategies);
- *evaluation of independent studies* (evaluates not only the results of learning, but also the study process, including the skill to learn).

Self-directed learning is a characteristic feature of the adults' autonomous learning process [10]; however, it is not a synonym of self-education. It may take place both independently (in an autodidactic manner) and by involving other people in the learning process due to two reasons: 1) under the influence of external conditions; 2) under the influence of an individual's own volition [11].

The personality's self-management function is characteristic also to *reflection*, which we would like to view from: 1) the aspect of professional development management; 2) the aspect of career self-management.

Management of professional development. Reflection (from Latin reflexion – redounding upon) is a type of an individual's theoretical activities, the perception, contemplating of his or her actions, experiences, feelings and reflexion, and finding out of regularities. Reflection is a key that opens developmental opportunities [12; 13]; it is a process, when an individual obtains knowledge through experience [14; 15; 16]. Reflection is the investment of time in the quality and progress, but the absence of reflection is the investment of time in the concerns and stagnation [17].

At the beginning of the 20th century J. Dewey [18] actualized the significance of reflection in the field of human thinking and professional development. He points out that reflection is based on a reflexive thought, which, unlike freely running, impulsive thought, is: focused, structured, logical, serves as a basis for the next thought, every assumption is justified with a verified substantiation, it is an essential source of professional knowledge, because it makes the new specialists to find new ways of thinking.

A group of American scientists [19] adds to this list the following: 1) continuity, namely, an ongoing dialogue with oneself and others comprises/is related to reflection before, after and during the obtaining of experience; 2) contextualization – the reflection shall be concrete and specific.

Scientist M.W. Daudelin [20] points out that reflection is a process of stepping back from experience, during which the experienced shall be carefully and independently considered, and the conclusions shall be drawn. The aim of reflection is to improve the efficiency of own performance. It is some kind of reference-point ... after action or the result of action, in order to improve future actions [21], achieve higher professional level [22].

Professor D.A. Schön [23] also has viewed the reflection process within the context of specialists' practice – reflection in action and reflection on action. Some authors [24; 25; 26] emphasize the significance of reflection before action. Researchers A. Alsop, S. Ryan [27] explain this type of reflection as follows: it is like looking at an information leaflet before going on a trip. We have ideas what the destination would look like, what we could do and whom we could meet. In its turn, reflection in action is like looking at the water in the pool or at the mirror; it shows us what we are like

at the present moment. Scientists compare reflection on action to photos or video after the trip. They tell where we went, what we did and whom we met.

The political dimension of reflection shall be attributed to the following questions: Who benefits as a result of my professional activities?; Whose interests do I serve to? This dimension is related to the control, influence and power of different professional situations. When the Food and Veterinary Service employees visit the company, is my main aim to avoid problems or to improve the performance of my company?

Thus, reflection is a complex and multifaceted process for obtaining of personal experience, which helps the prospective specialist to formulate the obtained results, redefine, (re)structure the aims of further actions, to adjust own way towards education, professional development [28]. According to scientists M. Killeavy and A. Moloney [29], in formation of reflexive approach, the action shall become the most important activity for development of future professionals. Under the modern unpredictable living conditions, the working conditions also change continuously. Therefore, a specialist must be ready to questions about his own professional performance and he must find the answers himself. In this case, reflection is a powerful impulse for the continuous personality and professional development, self-directed studies [30].

Career self-management. Due to the influence of global processes it is difficult to anticipate the development of career, therefore, the individual's role becomes more important for the career planning, search for and obtaining of the employment, as well as for the retaining of job to ensure own employment, which is one of the indicators of competitiveness.

Within the career management process, an individual develops, introduces and controls the aims and strategies of career [31; 32]. According to I. Jaunzeme's thesis [32], awareness about career management shall have both the individual and the organization, where he works. At the individual's level such knowledge helps manage the development of own personal career more efficiently; but at the organizational level – the management of the company is aware of the problems their employees face, when taking decisions concerning career.

Scientists from New Zealand L.M. Jorgensen and S. Hansen [33] point out within the context of evaluation of competitiveness that it is easy to identify reflection, but difficult to describe and measure, therefore, in the research methodology it is necessary to emphasize the meaning of self-assessment given by respondents (students) through reflection. This facilitates development of participation in evaluation and responsibility for own work results [34].

Russian scientist D. Kryukov [35] adds to this idea, when writing that competitiveness, firstly, manifests through the fact that the prospective specialist can knowingly change not only the external conditions of existence and life activities, but also own inner world, himself, personality properties and character. Alongside with the developed reflection and self-confidence, the prospective specialists can broaden the range of their opportunities (to develop their career) thanks to the understanding and transformation of those own qualities, which hinder or facilitate competitiveness.

It is obvious that to be able to identify, even more – to connect contradictions efficiently, to adapt to the circumstances and at the same time to alter them in own favour is the prerogative of an individual whose self-confidence and reflection are developed. Reflection, consciousness and self-confidence are closely related to creative thinking that is based not only on a cognitive act, but on the personality on the whole.

We agree with R. Hahele [36] that a full assessment process comprises both of these concepts (evaluation, assessment). As to the inner process – assessment of own work, the concept self-evaluation shall be used, where self-evaluation is obtained as a result

Facilitation of students' reflection for self-development of competitiveness

Since self-management is an important structural component of competitiveness, then the facilitation of reflection, including self-assessment and self-evaluation, on the whole ensures also the development of prospective specialists' competitiveness.

The prospective specialists must be able to assess, as well as to evaluate not only their own professional performance, but they must teach this to do also to their employees. Self-study facilitates identification of the basic values of professional activities, thus enabling to become better specialists

[37]. The employees, who are encouraged to assess themselves and to reflect on their professional performance, improve their performance. These specialists become active facilitators of the efficiency of professional activities; they feel responsibility towards their colleagues, clients and the manager, thus striving to achieve outstanding performance in any field – both in their personal life and professional activities [38].

Coordination of self-evaluation of one's own work and actions and the evaluation given by others is an essential process, which forms and develops in students the responsibility and shared responsibility, which, in their turn, are the indicators of competitiveness. Therefore, it is important that the students, together with the teaching staff, develop evaluation instruments for self-evaluation. The analysis of scientific literature shows that *portfolio* may serve as an excellent means for students for registration of their achievements, i.e. for planning their personal development.

Portfolio is a sound and varied method to be used for evaluation of students' studies. According to this method, the intellectual development is registered in writing; it facilitates the critical-reflexive process that enriches the students' educational experience and helps them transform into self-directed reflective personalities [21; 39]. When focusing on studies, the students shall assume the responsibility for their learning.

On the one hand, portfolio is a written report on the individual's achievements and activities summarized in a register. It is purposeful selection of the samples of the works of a student – the prospective graduate. The selection has been done within a particular period of evaluation [40]. On the other hand, several authors [41; 42] focus on portfolio as a productive means for development of prospective specialists' competitiveness and promotion in the labour market. Such means is based on assessment of the specialists' competency and achievements in the field of education, research, social sphere, as well as on the perspective of business and creative development.

G. Bräuer [43] compares portfolio to own work display. Everybody can observe it. It is only me who decides, what to place there (portfolio – process) or – contrary – what to remove from there (portfolio – result). In the first case I reflect alarming depth, in the second – blank surface.

Portfolio – process and result. Portfolio-process serves for the teaching staff as an operative information and control instrument. The teaching staff is provided an opportunity not only to track the developmental level of knowledge and skills, but also, if necessary, to make necessary adjustments in organization of the study process [44]. Portfolio-result is a totality of successive best works, projects and other documents selected by a student through reflection (improved through portfolio – process evaluation and analysis). The main aim of this portfolio type is to acquaint with the macrostructure of self-education [43].

Portfolio types. Portfolio-based learning is closely related to the principles of experimental learning, which is a cyclic reflection and learning process of registration, review of events and which is integrated into the holistic model of the learning process on the individual's learning, growth and development [45; 46]. In portfolio the results of the educational process are registered and the trajectory of the student's individual education is shown, i.e., the students can efficiently analyze the educational process during the study process.

American professor T.M. Haladyna [47] has identified five portfolio types: *ideal, showcase, documentation, evaluation,* and *class* portfolio. But V.J. Melograno [48] has identified nine portfolio types: *personal, working, record-keeping, group, thematic, integrated, showcase, electronic, multiyear.* These portfolios may be used separately or several of them may be combined.

The Bergen university professor K. Smith and the Leiden university professor H. H. Tillema [49] analyze four types of portfolios: *dossier, training, reflective and personal development.*

Professor M. McIntosh [50] identifies three portfolio platforms used in higher education: *working portfolio*; *showcase portfolio*; *assessment portfolio*.

Working portfolio is developed in order the exchange of information between the student and the teaching staff/mentor would take place. Based on the specific learning aims, it serves as "holding tanks" of students' works. By checking regularly the working portfolio, the teaching staff/mentor can diagnose the student's strengths and weaknesses, which serves for the student as guidelines for improvement of his performance. The main target group of the working portfolio is the student.

The process of information exchange may take place several times, within the period you have determined, i.e. after completion of the task, the student receives feedback from the teaching staff/mentor, makes changes and submits his work repeatedly. Each cycle improves both the student's learning and his perception of leaning. By receiving feedback from the teaching staff, the student develops his reflexive skills and learns to evaluate himself. After completion of projects, the student may move some samples from the working portfolio to the showcase portfolio.

During the development of *showcase portfolio* the student obtains particularly positive experience. By including his best works, the student is able to define himself in relation to his culture, learning and values. This portfolio form may be used within the framework of one course or the whole program, where collection of the best works had been created over several years. Thus, showcase portfolio may serve as an activity of the study program culmination or as an additional in-depth test, exam. The target audience of showcase portfolio comprises *the student, faculties*, where he studies, *the teaching staff and other students*, as well as the potential *employer*. In its turn, the content of the portfolio could be developed both at the university (in the classrooms) and outside this environment, namely, while working part-time job or participating in the volunteers' activities.

The main aim of assessment portfolio is to record, what the student has learnt by acquiring the particular study subject. This form of portfolio shall be developed so that it would show the student the connection between what he is learning and the fact what specific aims of the study course are defined in the study program. Assessment portfolio may be used to demonstrate the skills and content to be acquired. Assessment portfolio addressee is the student as a prospective specialist and the teaching staff. But the comprised content shall show the student's achievements/study results, namely, all documents that the teaching staff and the student find the evidence for attainment of the aims of the study course.

Scientist M. McIntosh [50] emphasizes – in order to use assessment portfolio, the following preconditions shall be observed:

- it is necessary to identify what procedural knowledge will be evaluated;
- it is necessary to plan the evaluation tasks for the identified learning objectives;
- it is necessary to determine the criteria for each task to be evaluated.

When receiving evaluation, the student must know the objective of the task/course, the standards set by the teaching staff and how the student's work will be evaluated according to these standards.

With portfolio the student gains greater positive insight into both oneself as a learning human being and an individual and eventually – a specialist ready for working in the profession. The teaching staff, while evaluating the student's portfolio, also gains a complex view on the student as a unique human being who will live "beyond the borders of the classroom".

Having summarized the literature on portfolio as the pedagogical-psychological instrument or means, we agree to D.V. Valko's [51] point of view, namely, there are three aspects regarding the use of this instrument: accumulative portfolio; reflexive portfolio; portfolio – process.

The aim and meaning of the depicted portfolios can be understood by identifying the range of tasks to be dealt with from the constructive aspect: at the reflexive portfolio level. By means of portfolio it is possible to deal with the tasks of both pedagogy and personality development.

- 1. *Evaluation*: evaluation of traceability and the level of competency; traceability and evaluation of the acquisition of the types of professional activities; traceability and evaluation of the achievements of other individual educational trajectory.
- 2. *Formation, development*: development of the skills and abilities necessary for setting the aims, planning, performing self-organization and development of other professionally important skills and abilities; development of the first experience concerning professional competition.
- 3. Socio-psychological aspects: designing of personality's professional development and self-development; development of study motivation, achievement motivation and professional performance motivation; systemic realization of self-educational and educational reflection; development of successful socialization, including in professional environment.

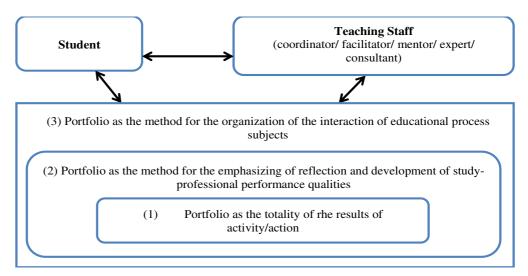


Fig. 1. Realization aspects of the student's portfolio

Having summarized the experts' views, D.V. Valko [51] draws a conclusion that the essence and task of portfolio in the educational process is the function of a psychological-pedagogic instrument.

Figure 1 shows realization aspects of the student's portfolio after adaptation and modification of the portfolio conception by D.V. Valko [51].

Structure of portfolio. The analysis of scientific literature shows that the systemic instrument facilitating a prospective specialist's competitiveness may be his/her created portfolio, which is complementary for the developed model of prospective specialists' competitiveness and ensures the specialist's achievements: in the aspects of self-conception and personality and professional progress, competence of the environment of professional activities, self-management.

The portfolio of a prospective specialist consists of four parts. The first part of the portfolio shows the dynamics of the student's personality and professional development. The second part – the development of the personality and the competitiveness component of professional progress: the system of dominant motives that manifests through needs, interests and aims; the system of value orientation manifesting through the attitude towards reality: ideals, beliefs, the world outlook.

In the third part of the portfolio it is possible to observe development of the competence of the environment of professional activities component of manager's competitiveness that enables to accumulate the achievements and results of professional knowledge and experience obtained by the student, including the results of practice, existence of scholarships, certificates, participation in the courses, forums, seminars, receiving of grants, improvement of professional skills; the ability to deal with different professional tasks in the environment of professional activities has been shown.

The fourth part of the portfolio shows the specialist's ability to plan his professional development, the dynamics and development of volition, flexibility (in thinking, action, interaction), reflection and emotional intelligence.

Conclusions

- 4. The prospective specialist's competitiveness is a complicated totality of personality qualities and functions. The self-management component is very important within the multicomponent structure of competitiveness, and the self-management component is formed of reflection; volition; flexibility in thinking, action, interaction and emotional intelligence.
- 5. The personality's self-management function is characteristic also to the reflection, which we could view from: 1) the aspect of professional development management; 2) the aspect of career self-management. Furthermore, reflection is both the process, which serves for the teaching staff as an operative information and control instrument, and the result acquaints prospective specialists with the macrostructure of self-education and competitiveness development.
- 6. There are 3 types of reflection: reflection before action; reflection in action; reflection on action. The most widely spread type of reflection is reflection on action. However, the other two types of reflection are of the same importance for facilitation of the development of prospective

- specialists' competitiveness. The student as a prospective specialist, when reflecting on his competitiveness, learns to assess his strengths and weaknesses, which he must address within the study, self-educational and career self-management process.
- 7. It is important to ensure such study environment at the higher education institution, which would facilitate competitiveness of the students as the prospective specialists. This could be best implemented by facilitating students' reflection on their integration into the study process, readiness for the professional activities, competence of the environment of professional activities, on the professional activities and their results.
- 8. Portfolio method is pedagogical means for facilitation development of competitiveness, including reflection, because the student obtains experience concerning self-assessment of own actions and their results. Portfolio serves for assessment of both the process and the results. There are several portfolio types, which could be used in both ways separately and when several types are combined.
- 9. The value of the portfolio method could be seen in the following: 1) during the study process, the students not only themselves collect representative samples of assessment of their work, but also critically deal with the simulating questions focused on the achievements as a positive contribution, contrary to the conventional testing of knowledge, which is developed in order to show the student what he has not achieved, mastered; 2) the emphasis is transferred from what the student does not know and cannot do to what he knows and can; an integration of qualitative and quantitative assessments; 3) transfer of pedagogical emphasis from the assessment to the self-assessment as a result, the student learns to self-express, formulate conclusions, analyze own work, express own point of view, thus developing thinking, and at the same time improving his language as a part of communicative competency, which is very important for the prospective specialists' work.
- 10. The student's portfolio shows the main components of the prospective specialist's competitiveness, the content of which constitutes the specialist's competitiveness in the environment of professional education and activities. This facilitates the student's motivation for achievements and ensures the student's individual development; facilitates the development of material complexes that attest the prospective specialist's CV, as well as implements reflection and self-evaluation.

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