The Concept of Knowledge Carrier’s Competence in the System of Continuing Education

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Abstract
The subject of the research is the pedagogic category of competency. The objective is to prove the thesis that competency is the objective and result of education in the context of the modern educational system. This category is considered a component of structural unity: literacy—education (in terms of degree of education)—competency—culture—mentality. The authors consider that under the conditions of the continuing education system—from primary school to higher education institute—the issues of goal-setting should be stated in regard to solidarity in tasks and shared objective setting—development of a competent knowledge-carrier and competence of personality as an expected outcome. The paper deals with correlation of the “competence” and “competency” notions; understanding of person’s “competence” as an acmeologic category and the potential of intellectual and professional development of personality, the characteristics of which are “competences”, which should be formed in the process of education are established. Given this, “competences” act as integrated characteristics of education quality and graduates’ training, and the categories “competence”—“competency” are a unity reflecting relation of “the potential general” and “the potential particular.” The modern qualitative result of education is a pre-singled out set of specific competences reflected in the competence-based model of education and the graduate’s model, which correspond to social order. The advantage of the competence-based approach in comparison with others is that its use makes it possible to socialize a person in the context of constant instability and development of the society.

Keywords: education, result, competence, concept

1. Introduction

1.1 Relevance Study

One of the tendencies of the last years involves reconception of both the education content, and its objectives and rethinking of the results. In this regard, refocusing of education result estimation from the notions of “qualification”, “education”, “literacy”, “culture” to the notions of “competency” and “competence” takes place. Despite the fact that these categories are buzzwords, the issue remains relevant and controversial.

1.2 Problem-Setting

In its qualitative characteristic, education is not only a system or a process. According to its most important meaning, it is a result, which registers the fact of person’s acquisition of all values coming up in the process of education, which are important for the intellectual, moral, political, and economic condition of the “product consumer” of the educational medium—the state, society, each person, and civilization as a whole.

The question naturally raises: Is this (resultant) aspect of educational activity concerned with the problematics related to the philosophic and educational grounding of the education field development, with the forecasting grounding of education development strategies?

The answer is clear: Without foreseeing and, more technologically, without forecasting the expected results of educational activities, any strategic research is meaningless. Moreover, the necessary specifics of any strategy directly depend on the degree of the expected results specification at any level along with probably more specific criteria of performance relating to all components of the educational “products”.
These “products” can be evaluated directly at the pedagogic level in the form of qualitatively and quantitatively estimated knowledge, skills, abilities, creative, worldview, mental, and behavioural qualities, which a person acquires in the process of receiving education of a corresponding level and specialization. The result of education should be assessed indirectly, at the level of economic, moral, intellectual, scientific and technological, cultural, and mental condition and opportunities of the society and the state.

1.3 Hypothesis Study

Thus, the quality of education, its performance should be estimated both at the personal level with regard to person’s actual learning acquisitions, and at the level of the society, state, or even civilization, which is substantiated by the indisputable fact that the progress of each society is impossible without proper education and by the attention that the state and society pay to the scope of education. In this case, the category of knowledge carrier’s competence is brought to the forefront as the objective and result of continuing education.

2. Methodology and Methods of Study

2.1 Theoretical and Conceptual Background of Study

The methodology of developmental teaching, methodology of communicative competence formation and development in theory and practice, and methodology of functional literacy define the theoretical and conceptual background of study. A number of analysis methods are used in the paper.

2.2 Descriptive and Analytical Method of Study

The descriptive and analytical method involves comparative study of the pedagogic, psychological, and didactic concepts.

2.3 Socio-Pedagogical Method of Study

The socio-pedagogical method suggests observing real educational activities of students, an analysis and attendance of lessons, and data collection.

2.4 Aspect Analysis

The aspect analysis is the study of academic and educational literature on the study subject.

3. Literature Review

Literature review regarding the issue, its history, research positions, existing classifications demonstrate complexity, the multidimensionality of interpretation of both “competence” and “competency” notions, and the approach based on them to the process and outcome of education. In the 1970’s, the term “competence” was widely popular in the USA and many European countries due to the individualization problem of education. At that time, the idea was simple: not to limit oneself to elements of science and corresponding teaching methods in education, but to try to develop all levels of interpersonal relations and the group microclimate.

The main idea of integrated development of competence is that one should not limit himself to a single set of knowledge and skills acquired in the system of formal education: in order to be effective this knowledge should be combined with a wider range of knowledge, which the humankind has accumulated from the formal education system. Herewith, different levels of education, particularly the general secondary education, vocational training, and professional education are the competence formation means. In general, American academics associate competence rather with person’s general characteristics than with his professional activity characteristics (Raven, 1975).

These ideas are echoed by German scientists who have developed the school teaching policy. They tried to rethink the “human factor” notion and state the main principles of new school formation. German scientists propose to refocus the approach to a person from the perspective of wholism as a way to overcome the current crisis. The theoretical and methodological positions of this concept’s authors are supported by the philosophical principle of wholeness, according to which there are universal creative powers, which create wholeness by means of evolution in all systems and processes, in the world and nature (Raven, 1975).

The term “competence” was initially introduced in social psychology through various definitions such as “competence of communication”, “communicative competence”, “interpersonal competence”, when communicative competence means the “ability” to establish and support necessary contacts with other people. Scientists used the ideas of subject activity structure, wherein communicative competence was defined as a system of internal resources necessary to arrange effective communicative action in a specific set of situations of interpersonal interaction, as the theoretical basic principles of the communicative competence content (Rubinstein, 1989; Krutestky, 1989; Kostyuk, 1998).
Then the issue became topical due to the idea of education content modernization, educational process organization techniques and technologies optimization, and revision of the education objectives and outcomes. Scientists and the pedagogic community of many countries, including Russia and Kazakhstan studied the resulting competence-based approach to education in the context of European tendencies for globalization (Vvedensky, 2003; Khutorskoy, 2003; Chinapakh, 2003; Selevko, 2004; Tatur, 2004; Shadrikov, 2004).

There are two variants for competence-competency correlation interpretation: they either are the same, or are differentiated. According to the first variant presented in the Glossary of Terms of European Training Foundation (1997), competence and competency are defined as follows:

1) Ability to do something well or effectively;
2) Ability to meet requirements during placement;
3) Ability to perform specific labor functions.

In the second variant, competence is interpreted as one based on knowledge, intellectually and personally conditioned professional activity of a person. J. Raven keeps to this point of view and gives an extensive definition of competence. He perceives it as a phenomenon consisting of “a great number of components, many of which are related rather to cognitive area, while others—to emotional, these components can replace each other as constituents of effective behavior. Given this, types of competence are motivated abilities” (Raven, 1975).

According to the “Glossary of Labor-market Terms”, there are four models of competences definition: a) based on personality parameters; b) based on task fulfillment and activity; c) based on production activity; d) based on the activity result management (Ryzhakov, 1999).

Developers of competences considered competences formulation a response to challenges, which Europe faced: protection of the open democratic society, multilingualism, multiculture, new requirements of the labor market, development of integrated organizations, and economic changes.

The idea of the competence-based approach in education caused a wide response and debates in Russian science. Its representatives esteem this idea rather ambiguous in the context of the notion content definition, the grounds for classifications, and the introduction into the learning process (Melnik, 2004; Mirolyubov, 2004; Tatur, 2004; Shadrikov, 2004).

However, researchers are unanimous in that the competence-based approach reflects objective realities and should be taken into account in the process of general and professional education modernization.

Seleznyova E. V. wrote, “The use of such approach may help to overcome traditional cognitive orientations of the higher education, lead to a new vision of the education content, its methods and technologies.” While developing her position, the researcher posed the following questions:

1) What caused the need for the competence-based approach introduction and in what way the new educational process organization correlates with its traditional orientation to KSA (knowledge, skills, abilities)?
2) Are “competence” and “competency” the same notions and if they are not, what their nonidentity means for definition of the approach as a competence-based one, and how in this case does it correlate with the general objective of education, i.e. with the student’s personality development?
3) What are the grounds for distinguishing the competence types and what essential characteristics do they have?
4) Can it be that one approach, in this case the competence-based one, is the only base for the formation of organization (Seleznyova, 1998)?

Lebedeva O. E. notes that the conceptual framework that characterizes the meaning of the competence-based approach has not been established yet, but nonetheless, the researcher gives its definition: “the competence-based approach is a set of general principles of education objectives setting, education content selection, educational process organization, and educational results estimation.” She refers the following provisions to the main principles:

1) The essence of education is the development of the educateses’ ability to independently solve problems in various areas and types of activities based on the use of social experience, the element of which is the learners’ own experience;
2) The content of education is the didactically adapted experience of politic and others problems solution;
3) The essence of the educational process organization consists in creating conditions for the formation of the learners’ experience in independent solution of cognitive, communicative, organizational, moral, and other problems comprising the education content;

4) Assessment of educational results based on the analysis of the education levels reached by learners at a specific stage of education.

Lebedeva O. E. stated that today, schools should make their pupils ready for changes, developing such qualities as mobility, dynamism, and constructiveness. One has to agree with this idea, especially on the assumption that the level of education under modern conditions is measured not by the knowledge level and its polyhistory. From the competence-based approach perspective, the level of education is determined by the ability to solve problems of different complexity based on the knowledge at hand. The competence-based approach does not disregard the knowledge importance, but is focused on the ability to use the acquired knowledge. In the context of the competence-based approach, formation of core competences becomes the main direct result of educational activity. From this point of view, the education objectives are set as follows:

1) To teach to learn, to teach to solve problems in the field of educational activities;

2) To teach to explain reality phenomena, their essence, causes, interrelations, using corresponding scholar apparatus, i.e. to solve cognitive problems;

3) To teach to orient oneself in the key problems of the modern life—ecological, political, of intercultural interaction and others, i.e. to solve analytic problems;

4) To teach to orient oneself in the world of spiritual values;

5) To teach to solve problems regarding specific social roles actualization;

6) To teach to solve problems common for different types of the professional and other activity;

7) To teach to solve problems of professional choice, including training for further education in institutions of the professional education system (Lebedeva, 2004).

Kazakhstan researchers analyzing the terms “competence” and “competency” point to the ambiguousness and sometimes inconsistency of the terms interpretation.

Considering competences of professional education, Druzhilov A. P. notes that questionable understanding of competences as a phenomenon of the new educational culture leads either to excessively extensive or narrow interpretation. The researcher distinguishes general, professional, academic, and other competences typical for the professional school system.

General competences are the ability based on knowledge, experience, inclinations, and values. Sometimes, they are called instrumental or impersonal. Professional competences are willingness and the ability to effectually act in accordance with business requirements, methodically solve tasks and problems in an orderly and independent way, and self-evaluate the results of one’s own activity.

Academic competences are the skill to use methodology, terminology common for an individual knowledge field, understanding of existing system interrelations. Transferable competences are the ability to reason using abstract terms, to carry out analysis, make decisions, adapt, be a leader, and work both in a group and individually. Personal competences are person’s willingness and ability to reveal, conceive, and estimate his development chances, requirements and limitations in family, profession, to reveal his own talent. Social competences are willingness or the ability to form oneself, live in social interaction, change and adapt oneself (Druzhilov, 2005).

The given review of competences represents only a small part of their abundance and proves the idea that a shift from the qualified approach in professional education to a competence-based one has a reason and the following causes:

1) Fundamental changes almost in all professions;

2) Occurrence of new professions;

3) Increase of horizontal mobility importance during lifetime;

4) Higher education professionalization;

5) The mass nature of higher education;

6) Development of convergent processes;

7) Decentralization of economic responsibility;
8) Personal enhancement role strengthening;
9) Decrease in social security of citizens.

4. Findings

4.1 Key Results

Completeness and the integrative nature of the education result at any stage and regarding any aspect can be perceived and understood only based on a clear-cut idea of the structure and hierarchy of performance of an educational activity and its successively related stages. Given this, it is necessary to note that even the most important and expected state and social educational achievements and results should be considered through the prism of personal educational acquisitions, since the cumulative educational potential of the society is eventually defined by a specific educational level of each person at all stages of his lifetime. In this regard, let us consider the hierarchy of the educational “ladder” of a person’s achievement of better educational results.

Over decades since the time of “Soviet school”, the category of literacy was considered a key result of the educational system. The general education school made a person ready for life and labor. It was to provide that necessary level of knowledge, skills, abilities, personal qualities, which was needed for participation in various kinds of activities and relations, was the starting basis for a person’s further continuing development, and was defined as “literacy”.

This pragmatic approach to the definition of “literacy” unilaterally establishes the adaptive functions of education. The point at issue is to meet solely the direct demands of the society for people able to carry out their functional responsibilities and feel more or less confident in the socioeconomic environment. The following approach is discernible: A person is for the society, for the state. A person is a cog in the complex economic mechanism of the state machine. A person is not so much a personality, as a common performer, worker, and cadre. Based on the so-called “human factor”, he must fulfill a super task—to ensure high rates of the scientific and technical progress in a certain production field.

The propaedeutic meaning of literacy is also practically assured: it is important by itself, but along with this, as a stage for further education, personality formation. The thesis about a certain educational minimum embodied in the notion of a “literate person” can also be considered common. Besides, it stands to reason that the notion of “literacy” accumulates humanitarian and scientific dimensions of initial cognition of the world in their harmony and interrelation. Literacy (as any other component of education performance) is essentially focused on the future, on the person’s entering the following stages of educational and labor activity.

Traditional ideas of literacy formation as the only and solely prerogative of school, especially of its primary stage, need to be revised. The primary stage of general education school was sufficient when literacy was reduced to mastering elementary skills. However, this idea is obsolete. The appearance of the functional literacy phenomenon, that is, as a rule, considered against the background of general illiteracy, expanded the time frames of person’s acquisition of some or other components of literacy. The concept of continuing education relates not only to professional education of adults for advanced vocational training. The issues of general and functional illiteracy elimination, providing each person with opportunities for closing gaps in the educational status at any stage of his life and for literacy transformation into education enjoy no less support in the context of this concept.

Literacy is polystructural. Within modern understanding, it is not only the reading, writing, and counting skills. A literate person is, above all things, a person ready for further enrichment and development of his education potential. Literacy should provide a person with certain initial opportunities. Social justice requires these opportunities to be equal for all people regardless of individual differences. The most important pedagogic characteristic of literacy is the availability of training for each and everyone.

One of the core results of the learning process is education (the degree of education). In a structural way, literacy and education are categories of the same magnitude, but not identical. Their composition is of the same type, but lack of sameness is explained by obvious differences of qualitative and quantitative nature—the volume and depth of knowledge, skills, abilities, creative activities methods, worldview, and behavioral characteristics. Speaking conventionally, education is literacy brought to a socially and individually necessary maximum.

Education suggests presence of a sufficiently spacious mind regarding various matters of human life and the society. However, it also supposes certain selectiveness by the depth of insight and understanding of certain issues. That is exactly why professionally oriented education should be based on the wide basis of general education. It is impossible to be well educated in one or another area without being literate.
In terms of personality, the structure of education fairly simulates the structure of literacy, but the content of each component turns to be essentially different. It is important to turn attention to not only direct, but inverse relation (reflection) between education and literacy: the objective need for the education structure and content change causes corresponding changes in the structure and content of literacy.

The degree of education is a category, which characterizes personal educational acquisitions. In turn, education is determined not only by personal needs, but also by the needs of the society and the state. Obviously, when the general education structure is determined by regulations, the structure of necessary literacy is determined automatically. However, the structure of literacy can be wider than the structure of general education development required at the given stage of social development. Mass literacy components can be unclaimed until the time comes, as if they “wait in the wings”, edging a peculiar reserve, literacy superfluity. For example, up to a point the question is not so much about computer, linguistic, economic, legal, and related types of education, as about the corresponding types of functional literacy. In this case, the main thing is creation of conditions for further extension and deepening of gained knowledge. The time interval between corresponding kinds of literacy and education should not be very large, since actual absence of demand for some other components of functional literacy inevitably leads to their obsolescence and depreciation.

The pedagogic category of competence is the following stage of the person’s evolution process. General education as well as literacy, is not a goal in itself. Under the conditions of natural division of labor, each person has to determine himself regarding selection of one or another profession. Moreover, it is important to take into account not only the economic efficiency of labor division, but the opportunities for fullest self-fulfillment in accordance with abilities and interests. It is clear that such self-fulfillment is only possible in a limited area of labor activity, wherein a person should be professionally competent.

The category of “professional competence” is mainly defined by the level of actual professional education, experience, individual abilities of the person motivated by a drive to continuing self-teaching and self-improvement, creative, responsible attitude to business. In our opinion, the “germs” of these qualities should be in the structure and content of general education, ensuring the base for the person’s literacy and culture. Firstly, it is functional literacy that will be claimed and become relevant at the professional level. Secondly, these are components, which can be referred not so much to subject content, as to person’s qualities under formation: responsibility, creativity, insistence, and thirst for new knowledge.

Therefore, the most well founded statement in “competence” and “competency” relation is the understanding of the person’s “competence” as an acmeologic category and potential of intellectual and professional development of personality, the characteristics of which are “competences”, which should be formed in the process of education. Speaking about the education result, “competences” act as integrated characteristics of the education quality and the graduates’ proficiency, i.e. the categories “competence”—“competency” are considered in unity reflecting the relation of “the potential general” and “the potential particular”. Competence as an objective and result of the teaching process is the person’s willingness and ability to utilize his education in practice (Salkhanova, 2013).

We suppose it is possible to formulate essential characteristics of competence-based education by means of the graduate’s model structuring through the system of his core competences:

1) Strengthening of the personal focus in education, that causes the need for ensuring activity of educatees taking part in the educational process, the pupils’ choice opportunities;
2) Developing the focus and elaboration of education, which has effect of the development and, being individually-oriented, sets actual advance to its main objective; given this, skills and abilities serve as the means of development;
3) Requirement to teach to solve socially and personally significant problems and vital tasks at any age, which are accomplished through learning a new kind of activities, within the framework of which learners can solve problems by themselves, learning news ways of problem-solving in various kinds of activities;
4) Focus on the person’s self-development, which is based on awareness of each person’s value, infinite possibilities for personal enhancement, inner freedom priority—freedom for creative self-development.

4.2 Discussion

The analysis shows that the question of competence and competency is closely related to the objective of the professional higher school. Consequently, it is possible to say that competence and education results are the new “points” that tighten the educational process. Given this, qualification does not disappear, it is included into the competence structure. In this regard, we consider it possible to distinguish the notions in the following way:
competence is the educational resource consisting in graduate’s qualification, actual ability to use methods, activity means, form of knowledge, skills, abilities combination, which allow setting and achieving objectives for environment reformation. Competency is person’s integrative quality, which is expressed in general willingness and ability for activity based on knowledge and experience.

A comparative analysis of functions of literacy, education, competency leads to the content of “culture”, “mentality” categories, which characterize further establishment of personality. It should be noted that specified components of the structure are lined up in a conditional sequence. They reflect only the general direction of education results’ successive enrichment in the process of personality establishment, but there is no clean-cut separation of components and formation stages.

In the context of interrelation and succession of these categories, it is fair to state that literacy is a necessary stage of both person’s education and professional competence, culture and mentality. It should include the “germs” of each successive stage of personality establishment. However, when analyzing those “germs”, it appears reasonable to follow not only the inductive logic from conditionally lower to conditionally higher stages of personal educational acquisitions, but also the deductive logic. In this case, the legislatively substantiated structural components of mentality, culture, professional competence, and education allow acknowledging the initial “germs” of literacy.

The person’s competence in some field of activities is a necessary component of introduction to the culture. The notion of “culture” is interpreted in different ways. But with all differences, its essential attributes include conscious attitude to the legacy of the past, the capacity for creative perception, the understanding and reforming the reality in a certain field of activity and relations.

Culture is the highest expression of education and competence. Person’s individuality can be most completely expressed at the level of culture. Naturally, this level of education delivery should attract the attention of not only professional culture experts, but also teachers who can propose feasible models of competence formation by means of deductive extension of content components of culture.

The highest value of education and its hierarchic main objective is formation of the persons’ and society’s mentality. The person’s mentality embodies innermost foundations of the human’s world-view and behavior. Mentality defines deeds of people, their attitude to various aspects of public life. In the long run, education result should be estimated not only by direct, controlled parameters of the pedagogic activity effectiveness. Assessment by long-term results of that activity with due regard to mental priorities of the given society and the dynamics of universal human values, volatile criteria of real progress in the person’s and society’s development is also important.

In the context of the competence-based approach, educational process exercises the function of the base condition and main instrument of person’s object-orientated preparation to self-education. Formed experience of self-education allows a person, being a subject of his cognitive activities, to achieve lofty goals that the life, the economic situation in the society, and the developing labor market set. Construction of an educational process focused on the person’s self-education management allows creating inner conditions for person’s gradual learning how to design life plans independently and move towards their fulfillment based on the sufficiently high level of self-education. The advantage of the competence-based approach in comparison with others is that its use makes it possible to socialize a person in the context of constant instability and development of the society.

5. Conclusion
5.1 Key Findings
Taking all the previously mentioned into consideration, we state that all links in the structural chain of education: literacy-education (in terms of degree of education)—competency—culture—mentality are interrelated and interdependent. In our opinion, under the conditions of the continuing education system—from primary school to higher education institutions—the issues of goal-setting should be stated in regard to solidarity in tasks and shared objective setting—development of a competent knowledge-carrier and competence of personality as an expected result. A person may demonstrate his individuality and unlock his educational potential in several areas. In this case, the issue is not so much about professional competence, as about competence in its function as the highest level of literacy and education, the giftedness of the person who is able to apply gained knowledge and skills in real life, successfully think and act in various branches of science.

The category of “professional competence” is largely defined by the level of professional education, experience, individual capacities, motivated drive for continuing self-education and self-improvement, and creative and responsible attitude to business. The “germs” of these qualities should be not only in the structure and content of
general education, but in the structure of literacy. Firstly, it is functional literacy that will be claimed and become relevant at the professional level. Secondly, these are components, which can be referred not so much to subject content, as to person’s qualities under formation: responsibility, creativity, insistence, and thirst for new knowledge. Competence is the person’s willingness and ability to utilize his education in practice.

We should also mention that the most well founded statement in “competence” and “competency” relation is the understanding of the person’s “competence” as an acmeologic category and potential of intellectual and professional development of personality, the characteristics of which are “competences”, which should be formed in the process of education.

With regard to the education result, “competences” act as integrated characteristics of the education quality and graduates’ training, i.e. the categories “competence”—“competency” are considered in unity reflecting the relation of “the potential general” and “the potential particular.” Therefore, the modern qualitative result of education is a pre-singed out set of specific competences reflected in the competence-based model of education and the graduate’s model, which correspond to social order. Correspondingly, the graduate’s model is not only a major indicator of the education quality and result, but also a system-forming factor for qualitative characterization of the entire categorical content of a competence-based education system and its components: strategies, goals, content, methods, technologies, educational media, forms of control and evaluation, etc.

5.2 Prospects for Further Studies

Despite goals of shift to competence-based model of education conforming to realities and needs of modern society, the shift owing to the absence of its reflection in education-managed system of technologic and conceptual models, methods and modernized facilities, continues to be prospective orientation, while knowledge component dominates in conceptual provisions as before.

The success of common cause can be ensured by providing interaction of research organizations, educational institutions and general public for the purpose of discussing the expected results system as a program of actions and conditions for ensuring the education quality transparency, and thereupon for development and introduction of innovative approaches, methodical and technical renewal of the teachers’, school’s and higher institution’s activities as a whole. An equally important task involves the development of a set of cross-disciplinary issues of education forecasting (focused on the future) standardization based on overall assessment of the current status and tendency for education development in the country and in the world with an analysis and synthesis of the most important life values, invariant for various countries and nations. This civilization-scale task waits its turn, but the need for its solution becomes clearer: only based on a sober estimate of its own education sphere and comparison of the education level with the international level of the highest educative and pedagogic achievements, any country can reckon on rightful and multiple-aspect partnership with the world community, much-needed economy competitiveness, and, hereafter, tolerance to and respect of the spiritual traditions and mental values of the nation.

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