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Multidimensionality of Learning – a Report from Some Studies Among Candidates for Teachers

Abstract

The presented paper is based on extensive multivariate studies conducted in some academic centres of Poland which differ in location (the centre – the borderland) and socio-economic potential. What prevails in the theoretical sphere are references to studies in the area of social psychology of development and to the idea of constructivism. The research results provide a lot of information on teacher education. On the basis of the conducted diagnoses, four dimensions of learning are indicated by the author (identity of the professional role, experiences in relations with the Other, practice, social participation) as well as the process of cogeneration. This constitutes a thought provoking material, which encourages changes in contents and methods (in the current model) of training teachers. Such an approach to teacher education seems appropriate and needed, in compliance with the critical-creative view on educational reality and striving for positive solutions to social (thus also educational) problems. The study enriches knowledge in the field of pedeutology, intercultural education, and some other areas of pedagogy (as a scientific discipline) and education (as a space of social life).

Keywords: *learning, teaching, the Other, multidimensionality, intercultural education, constructivism, cogeneration*

The research approach and interpretation of results are subordinated, among other things, to social psychology of development and the idea of constructivist understanding of individual and social development, framed by the theories of

Peter Berger and Thomas Luckmann, Jean Piaget, Jerome Bruner, Lev S. Vygotsky. Along with the notional category of learning, these theories constitute the main theoretical framework. The cognitive approach is also referred to on some occasions (cf., e.g.: Juszczyk 2003a). The theoretical background against which the subject matter issues are reflected upon clearly highlights the associations of intercultural education with the knowledge acquired in the field of pedagogy, psychology, sociology, anthropology, and other sciences.

In the constructivist approach, two major multifaceted and multidimensional currents can be distinguished: cognitive constructivism and social constructivism (cf., e.g.: Juszczyk 2003b: 771–783). The abundance and variety of standpoints comprised within constructivism is so huge that the prospects it offers seem attractive to both teachers and representatives of other scientific disciplines. Applying this perspective allows for viewing intercultural education as a dynamic and transcultural strategy of teaching-learning. People learn in interaction with the surroundings, they construct their own knowledge and make use of the knowledge they have already acquired. The ideas of constructivism provide promising prospects for education, including teacher education. This is a chance for shaping the multidimensional, creative and independently thinking man.

What is referred to and empirically verified in this study is Etienne Wenger's social theory of learning (1998). It is consistent with the applied multidimensional approach to the contemporary world, man, human education, learning and teaching. The theory is rooted in the Russian cultural-historical tradition in social sciences and is associated with social constructivism. Its author points at four conditions of learning: *practice and community*, which relate to the social context, and *meaning and identity*, which characterize the individual dimension of learning viewed from the social point of view.

Learning processes belong to significant issues discussed in humanities and social sciences. They constitute the research object of: general didactics, which apart from learning deals with the processes of teaching and educating (Cz. Kupisiewicz, W. Okoń,); psychology, which explores and describes developmental processes (A. Brzezińska, M. Przetacznikowa, M. Tyszkowa, J Trempała); psychological basics of teaching and learning (Z. Włodarski, M. Ledzińska, E. Czerniawska); pedagogy, which has recently made learning the central category for education (S. Dylak, T. Hejnicka-Bezwińska, S. Juszczyk, D. Klus-Stańska); and politics, which is permeated with the omnipresent ideologies and recommendations of the Council of Europe concerning lifelong education in the environment of currently reformed higher education.

The starting point in the multidimensional approach to learning of young adults, future teachers, who study pre- and early school education, is self-reflection

upon their own learning, on constructing knowledge of themselves and the Others and on their teaching.

What seems interesting are real learning, of which the course and results are the responsibility of the learner (if s/he is prepared and has appropriate conditions), and the awareness of guiding the process of the learner's learning, in other words – teaching. This goes along with the assumption that both processes are interrelated. The conditions which facilitate effective learning compose the whole system.

Man has numerous features which allow for viewing oneself and other people in the categories of similarities and differences. The criteria which enable such classifications comprise, e.g.: biological features (sex, age, eye colour, hair colour, physical or intellectual /dis/ability); social features (belonging to a particular national or ethnic group, the related status); cultural features (possessing and manifesting one's own cultural or religious identity and the related separateness); economic features (financial status and its consequences) (Szczepański 1988: 11–17; Dąbrowski 2001: 47–52; Melchior 2001: 103–116).

Applying the anthropological approach (unlikeness as a constitutive trait of mankind) and Bachtin's broad understanding of the borderland (as the borderland of cultures, communities, religions), which is present in intercultural education, a broad understanding of the Other is applied here as well – the Other is viewed in a multidimensional way. This also results from noticing the variety and multitude of cultures.

Some partial results of extensive multivariate studies will be referred to, conducted in 2011–2014 in three central and three borderland zones of Poland which differ in socio-economic advancement. The research was done within the project of the National Science Centre (number: N N106 416640). The representative group of respondents comprised 1268 young adults who studied pedagogy (specialization: pre- and early school education). The research model combined both the quantitative strategy (auditorium questionnaire) and the qualitative strategy (including group and individual interviews). The analysis of quantitative data was made with the application of both simple and complex methods (e.g., factor analysis and cluster analysis). The description of the examined group, research field, and methodology is comprised in the study (Szczurek-Boruta 2013).

In my research, an attempt was made at empirical verification of E. Wenger's model of learning (1998) (four dimensions: meaning, identity, practice, community), which was simultaneously enriched with the cultural dimension. Culture is a strong stimulant of standpoints and attitudes to the Other – as a differentiating and conflicting factor, it is also the foundation of integrity, it enhances personal identity and the feeling of safety, and it activates sensitivity training (Lewowicki,

2010, Nikitorowicz, 2012). Some hidden aspects of culture help to understand how it determines the perception of the world and people as well as learning.

Processing the obtained data required the application of factor analysis, which radically reduced the number of variables. This procedure aimed at isolating homogeneous factors which would be characterized by a set of 48 variables. In compliance with the criterion applied in R.B. Cattell's scree test (1966), four factors were subjected to analysis (they were given the following names: **identity of the professional role, experiences in relations with the Other, practice, social participation**) with various explanatory intensity (factor I – 0.118791; factor II – 0.108415; factor III – 0.074331; factor IV – 0.079795). The quoted empirical material was previously used in an earlier study (Szczurek-Boruta 2014: 77–120); however, in this study it is processed and interpreted in a different way.

The first factor - **identity of the professional role** – illustrates the association of personal identity with the identity of the teacher's professional role. It comprises 10 variables which characterize the process of learning from Others and teaching Others (cf.: Szczurek-Boruta 2014). The strongest correlations of this factor occur with the variables which describe: the teacher's duties, mutuality of learning in teacher-learner-parent relations, and a reflective approach to constructing one's own identity.

Quoting Henryka Kwiatkowska (2008: 214), future teachers have "an obligation-based orientation deeply imprinted in their consciousness". The respondents' answers indicate that they are familiar with the awareness of their own culture, the willingness to get acquainted with the Other, creating commonwealth, the consciousness of mutual learning of the teacher and the learner, cooperation of teachers, parents and learners.

The questions about learning, its essence in the post-modern world, and the role and responsibility of teachers are often asked in reference to individual development (e.g., Illeris 2006; Day 2004; Speck 2005). H. Kwiatkowska (2008: 206) emphasizes preparation for undertaking professional tasks and for professional development. According to E. Wenger's standpoint (1998), learning is related to identity. Identity is a sphere in which cognitive and psychodynamic aspects of learning constitute an integrated entity.

The prevailing "contents" of **the second factor** - **experiences in relations with the Other** – are the variables which specify the meanings applied to personal experiences. What can be indicated in the structure of this factor are experiences gained in daily contacts with other people and the features/properties of these experiences – tensions, continuity, providing access to one's own culture, novelty, openness, application in a new context.

In the undertaken discussion, experience is treated more profoundly – not only as direct perception, a process which concerns cognitive learning, but also as constructing some meanings, in compliance with the approach of social constructivism. This approach focuses on identity as a construction, a structure, a set of elements in the "building" of every person. It also draws attention to the creative way in which these elements are linked, constructed, built, assembled. In this respect, some complementary standpoints are referred to: J. Bruner's view (2006, Introduction, IX), namely he claimed that perceiving itself is categorization and that learning is nothing else but acquiring or creating categories; K. Illeris's standpoint (2006: 155), where three dimensions of learning through experience are distinguished (the cognitive, emotional, and action-based dimension); and Gordon Moskowitz's view, treating perception as construction and claiming that a part of perceptive experience is determined not by features of a subject or a person that is observed, but by the context in which observation is conducted. The context can modify perception, suggest particular meanings, change from one situation into another.

The structure of **the third factor – practice** – involves some exact skills, qualifications, competences for entering relations with the Other. The factor comprises many groups of skills - behaviour techniques (managing contrary expectations of Others, negotiating, reaching compromise, acting at the borderline of one's own and the other culture, cooperating with Others) which are useful in handling difficult situations and in cooperation in social relations.

Learning through practice takes place in everyday reality. University students learn by acting, entering interactions, participating in work of various teams (they implement university projects with their peers, take part in teaching internships as members of the teaching staff of a particular institution), creating their own constructions of reality, which are related to constructions of individuals and the group. Reality is socially created by students (Berger, Luckmann 1983: 23). The respondents present a reflexive approach to managing their self-development by educating on their own or searching for help in external institutions. Knowledge, experience and suggestions for solutions might compose a whole which characterizes a reflective practitioner, who will be able to cross the level of routine activities (cf.: Donald Schön's concept of reflective practitioner; as cited in: Kwiatkowska 2008: 64–76).

The set of variables composing **the fourth factor – social participation** – includes those which point at the feeling of belonging, bonds, closeness, and activities aiming at building a community. Individual behaviours and emotions are related to social processes with collective engagement in creating a group or

solving problems. This takes place along with the feeling of social responsibility. The feeling extends from outer responsibility *("I can build emotional relations and social relationships with others"),* through the responsibility taken by community members *("I cooperate with members of my community/ies"),* to personal responsibility for one's own acting and life (*"I unceasingly learn from Others with whom I create a community"*).

Learning is determined by many factors. Apart from personality traits or predispositions, due significance is contributed to the factors often referred to as social or cultural capital.

The statistical analysis indicates a relation between socio-economic potential, geographical location (borderland/centre), and dimensions of learning (canonical R=0.25455 chi2(80)=125,18 p=0.00095, weak correlation, substantial but weak relationship) (Guilford 1960: 171). It should be indicated that in multivariate studies even small values of relationships are significant (Brzeziński 2002).

The research results allow for noticing formal profound similarities in the dimensions of learning of young adults. This is not equal with the identical nature of "identity effort", which is determined by the specificity of young adults' experiences.

It should be marked that the experience gained and knowledge acquired by university students in the non-academic world influence their process of learning, their teaching and the functioning in higher education institutions, as well as their behaviours during teaching internships.

What gains particular significance in the discussed context is man's functioning in the intercultural dimension. Contemporary people shape their individual identities in the world of changing cultures, the world where integration (unification) tendencies clash with those which offer the feeling of autonomy, separateness or sovereignty (Matsumoto, Juang 2007).

Learning through cultural references takes place in every environment. In the situation of cultural borderland, this becomes particularly transparent. Yet, currently, such learning appears also in the centre, which has been considered so far as ethnically homogeneous and now is becoming a multicultural environment.

Conclusions

Identity of the professional role, experiences in relations with the Other, practice, and social participation are the dimensions in which learning takes place. They are inseparable and, embedded in the socio-cultural context and

stimulated by economic potential, they enhance their impact. These dimensions cooperate with one another, they act together and in conjugation, ensuring effective learning.

Solving theoretical and practical problems concerning teacher preparation for work in the multicultural environment requires reflection which goes beyond the framework of particular pedagogical disciplines – it requires some permeating of humanities, social sciences and technical disciplines. The notion of cogeneration is referred to; as a dictionary entry, the prefix *co-* indicates common, of the same degree, joint, complementary participation in duties, responsibility; *generation* means creating, producing something new, a product, and is borrowed here from technical terminology (Chochowski 2012: 86–87). The term can be successfully used in social sciences (more on this: Szczurek-Boruta 2014: 115–120).

In the ambiguous educational, social, and cultural reality (Juszczyk 2007) and in societies caring for well-balanced development, learning from Others occurs in mutual conjugation. This process results in constructing the individual and constructing the world.

Learning in the process of cogeneration is viewed here as favourable for "becoming" of the individual, for constructing (by individuals) a reality marked with social coherence or integration, which is very useful in intercultural education and promoted by the European Union as regards multicultural communities. In the process of cogeneration of the four dimensions of learning, individuals acting together create themselves and the world in which they function. Cogeneration compared to synergy provides more effective learning.

The presented considerations can contribute to the discussion on future teachers' learning. The original elements are: indicating the adjacent fields of different scientific disciplines and their border areas; opening the subdiscipline of intercultural pedagogy to the motives which do not belong to its canon or paradigm; making a complex diagnosis which provides both an integrated system of different aspects of knowledge concerning learning and the resulting practical recommendations.

The research gave rise to a numerous set of variables which characterize the examined phenomenon in a multisided way, although they do not exhaust it. What constitutes the value of the collected empirical material is that it drifts apart from fragmentary descriptions, characterizations of the age group living in one selected environment, and presents a cross-section of the whole generation of candidates for teachers (the examined group is representative). This allows for comparisons and generalizations.

The key merit of the factor analysis applied here to process quantitative data is the contribution of this method to conceptual explanation. A consequence of

applying factor analysis is the open nature of the results, some of which might be perceived and interpreted differently.

In general, the study introduces a lot of significant information and opens new prospects for the research at the borderline of intercultural education, general pedagogy, pedeutology, some subdisciplines of psychology and sociology, as well as some other areas of broadly treated humanities.

The diagnosis of future teachers' learning in their personal, social and cultural contexts is regarded here as particularly significant for several reasons: bringing out their awareness and self-reflection upon the ways of learning from and with Others, constructing a knowledge of Others, breaking stereotypes and prejudices; undertaking activities which strengthen the constructing and perfecting their personal and professional identity; familiarization with the determinants of future teachers' preparation for work in the multicultural environment. These determinants are located not only in the personal but also social, cultural, and economic sphere. The diagnosis may help to make better use of the potentialities of future teachers, may become the foundation of preparing highly qualified teaching staff, and may contribute to broadening teachers competences and developing key competences of learners. It can become a basis for the development of pedagogical theory and optimization of pedagogical undertakings.

The presented diagnoses and reflections may become an inspiration to construct a model of teacher education which will meet the needs of modern societies living in the conditions of advancing globalization and, at the same time, of growing multiculturalism.

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