Ключевые слова: методология, педагогический процесс, методологические знания, содержание образования, формирование методологического компонента системы знаний учащихся.

А. В. Омельченко

МЕТОДОЛОГІЯ ПЕДАГОГІКИ В СУЧАСНІЙ ОСВІТІ

Весь педагогічний процес приховано або явно пронизаний методологічними приписами: від гранично загальних до конкретних методичних рекомендацій. У даній статті було розглянуто сутність, структура та функції методології педагогіки; було визначено місце методологічного компонента системи знань у змісті вищої освіти та способи його формування.

Ключові слова: методологія, педагогічний процес, методологічні знання, зміст освіти, формування методологічного компонента системи знань учнів.

A. Omelchenko

METHODOLOGY OF PEDAGOGICS IN MODERN EDUCATION

The pedagogical process is permeated by the methodological orders: from utterly general to concrete methodical recommendations. In this article the essence, structure and functions of methodology in Pedagogics were defined. The proper place for the methodological knowledge in shaping the content of education and the methods of its formation were outlined.

Key words: methodology, pedagogical process, methodological knowledge, the content of education, the formation of the methodological component of the system of knowledge.

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THE COMPLEX INSTRUCTION MODEL

Problem statement. The complex instruction is a combination of pedagogical strategies and promotes equal-status interactions amongst students as they engage with tasks that have high cognitive demand within a cooperative learning environment. The complex instruction model aims to "disrupt typical hierarchies of who is 'smart' and who is not" (Sapon-Shevin, 2004). In particular, complex instruction addresses the central features: curriculum, instruction, and organization, which can construct failure for students or alternately change the situation so that more students are academically successful. The complex instruction are three principles, that when simultaneously enacted, support equitable participation and increase student understanding. These three principles are (1) a multi-ability curriculum: provide curricular activities that are open-ended, rich in multiple abilities, and provide opportunities to learn important concepts and skills central to a big idea. (2) instructional strategies:

develop autonomy and interdependence of each group by using, modelling and holding students accountable to the norms and roles. and (3) status and accountability: raise intellectual expectations for all students, hold individuals and small groups accountable for participation and learning, and intervene in status issues. (Cohen, Lotan, 1997)

Complex Instruction "emphasizes equal-status interactions among students and specifies the conditions under which teachers can establish and support such interactions. Teachers build equitable classrooms by crafting group-worthy learning tasks, organizing the classroom for productive collaboration, developing the student's facility with the academic discourse of the discipline, assessing and providing feedback to groups and individuals and, most importantly, by addressing status problems that arise in small working groups".(Lotan, 2011:1)

In Complex Instruction model, teachers are using two interventions: first, in a "multiple-ability orientation" that precedes the group task, teachers convince students that in addition to the traditional academic abilities of reading, writing and calculating quickly, a multitude of different intellectual abilities are needed to complete the task successfully. By stating that different students will make different intellectual contributions, the teacher creates a mixed set of expectations and thus fosters more equal participation, and second, by closely observing students who previously exhibit low-status behavior, the teacher can notice successful contributions to the group effort and to the successful completion of the task by those students. To make possible the use of these interventions, are used learning tasks that support group interaction and equal-status participation. (Lotan R., 2011:4-5)

Elizabeth Cohen and her colleagues at Stanford University developed a form of cooperative learning known as Complex Instruction (CI). For over thirty years, they have worked from its research base in the sociology of small group process to promote academically successful groupwork in public school classrooms. Their work shows us how to organize our classrooms for successful collaboration among heterogeneous groups of learners and the key to learning in groups is participation (talking and working together) (Cohen, Lotan, and Holthius, 1995).

David P.Ausubel is the author of a "coherent theory of the teaching in the school". Its reason is to solve the contradictions between the psychological theory of learning and the pedagogical practice of training. A model of training is aimed to in school which:

a)   starts from the teaching – learning activity performed in the classroom

b)   emphasizes the conditions of the conscious learning conditions (see the cognitive and motivational resources of the pupils);

c)   capitalizes the competent teachers` experience (see the didactical methods based on discovery, debate, creativity, introspection)

Ausubel solves the report between the learning theories and the training models in a pragmatical spirit. The learning theories answer to the typical require-

ments of the power of explanation." In order to gain "pedagogical utility, the theory should meet a more pretentious criteria: the substantial modification of the behavior of the teacher who gained it" The analyses of this report is performed within a described epistemological and methodological context which aims to clarify the status of the education/pedagogical psychology (Ausubel; Robinson, 1981)

Making the teaching efficient in schools imposes the joining of the two dimensions or categories of variables of the a) educative medium and b) anticipate effects by objectives, within a concrete socio-pedagogical context. The pedagogical bet requires the resources of the fundamental and applicative research, needed to solve a very complex and difficult problem. Epistemologically, it implies it implies the elaboration of some "integrating theoretical concept" which allow later "the description of the empirically derived concepts between the two classes of variables"(Ausubel; Robinson, 1981:63). This is what the theory of the conscious learning in schools tries to achieve.

This article are highlighted the importance and utility of the complex instruction model on the learning actions as conscious learning process.

Conscious Learning Paradigm. The paradigm is, says Thomas Kuhn, "a coherent universe of ideas and principles accepted by a scientific community that intends to provide a comprehensive explanation, inclusive, on a scientific phenomenon" (Apud Bîrzea1998, p.51). For Borovin, the paradigm "is the general scale of observation and scientific interpretation of a phenomenon" (Apud Iucu, 2001:51). At present, in I Neacşu opinion, can be determined several major guidelines methodological paradigms of exploratory type at the level of training models: (a) focus on correlations of the qualitative and quantitative aspects specific to the two major processes: training - learning; (b) focus on one of the most important and interesting problems in the education and learning as an alternative horizontal namely the influence of training (teaching); (c) vertical focus attention on the importance of education and learning are viewed as products or as processes; (d) focus on specific descriptions of relationships between predetermined objectives, expected performance, and qualitative and quantitative variation main basic stimuli. These approaches to learning from different angles, each with advantages and limitations, are complementary rather than competing. (Neacşu, 1999:63)

Learning as a product. In general learning is defined as a change in behavior. In other words, learning is approached as an outcome - the end product of some process. It can be recognized or seen. This approach has the virtue of highlighting a crucial aspect of learning - change. Merriam and Caffarella in 1991 were asking the question *Can the change involved include the potential for change?* Questions such as this have led to qualification. Some have looked to identifying relatively permanent changes in behaviour (or potential for change) as a result of experiences. However, not all changes in behaviour resulting from experience involve learning. (Merriam and Caffarella 1991: 124). It would seem fair to expect that if we are to say that learning has taken place, experience should have been used in some way. Not surprisingly, many theorists have, thus, been less concerned with overt behaviour but

with changes in the ways in which people 'understand, or experience, or conceptualize the world around them' (Ramsden 1992: 4). The focus for them, is gaining knowledge or ability through the use of experience.

On the other hand, some years ago Säljö (1979) carried out a simple, but very useful piece of research. He identified five main categories about learning (see table 1) and we can observe that conceptions 4 and 5 in are qualitatively different from the first three. The first three concepts imply a less complex view of learning and it is something external to the learner

Table 1. The perceptions of respondent on learning (Säljö, 1979)

1.Learning as a quantitative increase in knowledge. Learning is acquiring information or 'knowing a lot'.
2.Learning as memorising. Learning is storing information that can be reproduced
3.Learning as acquiring facts, skills, and methods that can be retained and used as necessary.
4.Learning as making sense or abstracting meaning. Learning involves relating parts of the subject matter to each other and to the real world.
5.Learning as interpreting and understanding reality in a different way. Learning involves comprehending the world by reinterpreting knowledge.

(*Source*: Ramsden 1992: 26)

Learning as a conscious process. From Säljö research results the learning appearing as a process. In this way, learning could be thought of as 'a process by which behaviour changes as a result of experience' (Merriam and Caffarella 1991: 124). One particularly helpful way of approaching the area has been formulated by Alan Rogers (2003). Rogers sets out two contrasting approaches: task-conscious or acquisition learning and learning-conscious or formalized learning. . Acquisition learning is seen as going on all the time. It is 'concrete, immediate and confined to a specific activity; it is not concerned with general principles' (Rogers 2003: 18). . Formalized learning arises from the process of facilitating learning. It is 'educative learning' rather than the accumulation of experience and involves guided episodes of learning. 'Learning itself is the task. What formalized learning does is to make learning more conscious in order to enhance it' (Rogers 2003: 27).

The theory of the conscious learning, developed by D.P.Ausubel, contains the premises needed for performing a pedagogical model, achievable in school.

The conscious learning paradigm is conceived depending on the cognitive structure of the pupil and the nature of the material to be learned. (Ausubel, 1981:75-84).

The cognitive structure includes the assembly of the knowledge (empirical data, facts, notions, sentences, theories), acquired, clarified, and organized by the pupils.

The nature of the material includes a diversity of didactical tasks (items), which are to be acquired and integrated in the cognitive structure of the pupil through associability (that presumes to report the new items to the old ones, which are considered to be relevant). The associability, condition of conscious learning, implies substantiality (the relationship with the new knowledge does not change if a different but equivalent verbal form is used) and objectivity.

The process of conscious learning is gradual achievable during three distinctive but complementary stages: 1) the acquirement of the logical significance – implies the effort of reception the learning material, starting from its structural qualities (associativity of I grade); the acquirement of the potential significance of the learning material – implies effort of introspection of the knowledge by reporting the new items to the relevant items (associativity of II grade); 3) the acquirement of the psychological significance – implies the full introspection of knowledge at conscious learning level, cognitively sustained (the integration of the new items in the cognitive structure, through the relevant items "anchor") and also motivationally (through the "disposition of conscious learning) – associativity of III grade.

The types of conscious learning. The types of conscious learning can be identified depending on the psychological process involved in the didactical activity organization and the cognitive level reached by the pupil. At this level which marks the content integration received by the pupil in his cognitive structure the following intervenes such as: a) learning by representation; b) learning of notions; c) learning of sentences; d) learning by discovery.

Learning by representation implies the "first major intellectual tasks of the child that consisted in the acquirement of the meanings of certain individual symbols. The words are learned concerning the evocated image referring to an object,, being, situation, etc.

The learning of the notions implies not only the acquirement of the logical meaning but also the psychological meaning of some realities expressed by words. The presentation of the notions as definitions is typical for the scholar learning. It ensures the reach of a new stage, the assimilation of the notions, and premises for passing to a superior level of conscious learning.

The learning of the sentences "consists in perceiving the meaning of the composed idea that is more than the sum of the individual words". In this process, the learning of syntaxes is involved, respectively the rules of putting the individual words in order by relations of subordination, over-ordination and combination.

The learning through discovery is performed in the situation when "the material of learning is not presented in a final form to the one who learns.

In solving the problem situations, the requested solutions imply the creative capitalization of the existent knowledge. The relations between the known sentences and the unknown ones are combinatory. The achievable synthesis is superior to the one needed to solve the problem.

The integration of the conscious types in the structure of a model can be achieved by reporting them to the taxonomy of the cognitive objectives elaborated by

B.S.Bloom. Learning through discovery presumes the applying of the knowledge understood gradually by analysis and synthesis in order to solve situations – problem which requests "the apparition of a unique product under the aspect of the previous experience of the individual.

The strategies of the conscious learning. The strategy of the learning by reception, needful for the complex training, represents the premises of the new knowledge discovery, dependent of the anchor – ideas set after a previous presentation. The aim of the reception, the understanding and the application of the new contents assume the capitalization of the cognitive and socio-affective variables.

The best correlation intervenes between the complex training and the active, independent, critical reception of the new contents projected at the level of the scholar programs that aims to mastering the anchor – ideas through special modalities as follows: structuring the didactical tasks; organizing the subject; transmitting the knowledge; implying the didactical means proper to the programmed exercise and training and also to other method based on written and practical works.

The strategy of the learning through discovery is complementary with one based on reception. The specific objectives are situated between the understanding and generalization of the concepts at level of principles and solving the problems and the wear problems. The reason of the discovery is to teach the pupil how to learn autonomously requiring the anchor ideas through all the forms of reasoning, looking for incorporated solutions in the cognitive structure valid in the same context and new situations.

The model of the complex training presumes the capitalization of the both strategies of learning. The advantages of the discovery are not achievable without the basis knowledge (anchor ideas) previously acquired and exercised through the reception.

The socio – affective variables of the learning. The socio – affective variables of the learning have an important role in constructing a model of the complex training.

The motivation of the pupil includes affective variables that have an energizing function of the activity. Later, they intervene directly together with cognitive variables. In this study, the balanced participation of the affective variables is important. Thus, the too intense affective state may embarrass rather than facilitate the learning, especially when didactical complex tasks are included.

The affective typology of the personality of the pupil reflects the variable of the early interactions between parents and children that will generate different behaviors.

The factors of group include socio-affective variable expressed by a) existent interactions in schools (teacher – pupil, pupil – scholar object, pupil - pupil) and outside the school (family, group of friends).

A special socio-affective variable acts at the level of the style of teaching (based on lecture/conversation, on approaches oriented towards the group or on the

authoritarian leadership). The democratic behavior has superior pedagogical re-sources focused on socio-affective type variables sustaining the join aim, construc-tive debates, alternative solutions, operational decisions and responsible discipline.

The efficiency of the complex instruction model implies the capitalization of the two strategies in complementary terms. The both strategies can stimulate the pupil's motivation by encouraging: the independent and critical spirit, the discovery by strict planning of its didactical intercession.

Conclusions and prospects for further development. Orientations and current trends in the learning process. We need to invest in sustained professional education and provide extensive school-based support so teachers can understand the theoretical principles of Complex Instruction and apply them effectively to make equitable classrooms a reality.

Progress towards a society more educated, determined by an expansion a reality not only quantitative but also qualitative of knowledge, with continuous multiplication science field, and the emergence of new themes, ideas and theories, which are associate growing number of restructuring and reconsideration of concepts, theories and conceptual frameworks, generated entry of education in the general current knowledge revolution.

A knowledge society requires increasing training efforts, more complex skills and higher, forcing school systems to raise training standards, but also to more effective teaching solutions. Is what we might call the development of new training systems, new paradigms to base the pedagogical thinking patterns, which in turn inspire new models of training to meet these needs and requirements.

In this period, we assist to increasingly diversified answers as solutions of the training staff that favored the transition from what was education - a unique educational thinking and organizational learning situations - from multiple other systems or forms. Is an expression of deeper and more nuanced understanding of different ways in which students learn and can be taught, of different ways in which schools engage in individual and social knowledge construction in students, thanks to theoretical sources of stimulation and development activities of these dimensions. Therefore, due to the different nature and complexity of the issues to be solved separately, processual solutions were designed as a practical teaching models and systems, relatively distinct structure of teaching and learning (Cerghit, 2002:23).

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THE COMPLEX INSTRUCTION MODEL

The complex instruction is a combination of pedagogical strategies and promotes equal-status interactions amongst students as they engage with tasks that have high cognitive demand within a cooperative learning environment. The complex instruction model capitalizes the strategically resources of the active receptions and organized discovery of the knowledge. At the basis of this model there is the conscious learning, having an epistemological and practical reason (the improvement of the teacher and pupil's activity). The purpose of article are highlighted the importance and utility of the complex instruction model on the learning actions as conscious learning process.

Key words: instructive, conscious learning, types of learning, socio – affective variables.

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КОМПЛЕКСНАЯ СИСТЕМА ОБУЧЕНИЯ

Комплексная система обучения – это сочетание педагогической стратегии, которая способствует равноправному взаимодействию участников педагогического процесса, а также решение познавательных задач. Целью статьи является раскрытие важности и продуктивности комплексной модели обчения.

Ключевые слова: сознательное обучение, формы обучения, модель обучения.

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КОМПЛЕКСНА СИСТЕМА НАВЧАННЯ

Комплексна система навчання - це поєднання педагогічної стратегії, яка сприяє рівноправної взаємодії учасників педагогічного процесу, а також рішення пізнавальних завдань. Метою статті є розкриття важливості і продуктивності комплексної моделі навчання.

Ключові слова: свідоме навчання, форми навчання, модель навчання.

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BEING A TEACHER IN THE 21st CENTURY

Human society is organised so that it transfers, through education, in terms of evolution and also synchronism, the values it holds. The strength of a society is given by this radiant power of knowledge spread throughout time and space. The stake of education is the know-how, an accumulation of cultural values, its transferability from one another. Knowledge is an anthropological condition of human persistence in time and over time (Cucoş, 2006).

These new concepts in education cannot replace the traditional ones dramatically. The combination between tradition and novelty may, however, lead to more safety in solving the current educational crisis, manifested not only in Romania, but also worldwide.

At the moment, there is a huge gap between Romania and western countries, economically speaking. But this gap is probably manifested, though not so obvious, at the cultural and educational level. There is no reference here to the general culture and education, but rather to the technical culture and practical education.