

Didactic Modeling in Teaching Students Pedagogues

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Abstract:

This article is a theoretical study on a model of higher education education at Thracian University, Faculty of Pedagogy in Bulgaria. The teaching process in the subject "Primary School Pedagogy" is being subjected to didactic study in student pedagogues. Theoretically, the methods by which the teachers interact with the students are studied. In their understanding, the interactive lecture in the academic environment is much more successful. The article follows the steps of modeling a didactic matrix in its entirety. There is a need for special didactic modeling from the position of the different topics and from the position of the learning activities with understanding and experience. He argues that didactic modeling evolves into a specially organized simulation-based learning environment. Thus, once, it modeled the learning environment and the second time: a simulation environment was modeled specifically for it. The unique in this process of learning is that it is led by two professors - associate professor and professor. The planned training takes the form of dialogue in front of the students they are involved in. In developing academic lectures, teachers define educational goals, construct training materials, and evaluate how the didactic model is constructed. The didactic model is flexible and adaptable. It gives every student the opportunity to present his strong side so he is successful. The student develops his/her less good skills so that a training pedagogical balance is achieved at the end of the training.

Key words: education, didactics, primary school pedagogy

Introduction

Higher pedagogical education in Bulgaria has its own traditional characteristics, but also those imposed by the modern market economy. More and more it becomes a product on the labor market:

- the demand for qualified innovative teachers;

- offering effective innovative teaching models to form such teachers. Because it is very important in what learning environment the student-pedagogue forms his/her competencies, pedagogical values and reflections. Little is the percentage of higher education teachers who manage to combine traditional academic lectures with reflective and adaptive approaches to engage, motivate, and realize the interest of students.

This article expresses the view that adaptive and reflexive learning coupled with personalized learning can support the individuality of the student on the path to pedagogy towards mastery, high academic credits and future pedagogical professionalism. This conviction stems from the fact that primary school pedagogy is an interdisciplinary branch in pedagogy science. This is the first reason to believe that future primary teachers should have developed interdisciplinary pedagogical skills to work in a learning environment. It is well known in the scientific community that the scientific status of initial pedagogy is related to the status of general pedagogy, but its development determines the expansion and enrichment of pedagogical knowledge about the education, education and education of pupils of primary school age. According to Ivanov, G. primary school pedagogy appears as a separate branch of pedagogy. Its scientific focus reflects modern trends in public and educational development. (Ivanov, G., 2018). In this way, he endeavors to enrich his research and didactical tools in research and correspondence with scientific theoretical problems of various

scientific fields. According to Vassileva, E. "primary school pedagogy can be seen as a system with highly pronounced inter-integrative tendencies of realization and correlation" (Vasileva, E., 2007). The contemporary interpretation of primary school pedagogy as a discipline outlines the modern practical-applied projections to fundamental pedagogical science. It outlines the successful application of the interdisciplinary approach in its pragmatic absorption by students.

The specific broadness of science primary school pedagogy related to the subject and the subject of its scientific knowledge - education, education and education as social phenomena, outlines the methodological requirement that training students not take place in a lecture course. To model such learning environments, to combine such interactive activities that will outline a new didactic model of learning in interactive mode. This pragmatic idea is approbated with students in the 2015-2017 school year, and the results are described in the empirical study "Research Training in an Academic Environment (Scientific-Theoretical Reflection)." Accredited research technology allows for the accumulation of a sufficiently new learning and reflection experience so that modeling a didactic matrix for application, in which interdisciplinary methods are not separate constructs but are integrated into the modeled interactive areas of pedagogical interaction, in the modeled domains they aim purposefully and taxonomically with techniques, tools, methods, technologies, approaches. The main components of these areas are interactive methods in their specific combination and modeled conditions (modeled learning environment).

Theoretical justification of the didactic model

The symbiosis between learning methods and the learning environment outlines the boundaries of the didactic model related to the teaching of the subject "Primary School Pedagogy". The Didactic Toolkit, configured by methods: environment, is directly geared to the interdisciplinary nature of the primary school pedagogy. The goal is that each participant - a teacher or a student - develops in the educational process skills for content manipulation with didactic tools so as to model didactic matrices in which to pour the thematic content. Management of education and modeling of education is an indicator of professional skills and strategies. Namely, this is one of the learning objectives of the "Primary School Pedagogy" course. The application of didactical modeling to the educational, cognitive, competence and activity framework of primary school pedagogy outlines the theoretical basis on which each thematic area can be constructed. In a study Vassileva, M. (2016), makes a brief overview of the didactic models. They are defined as "scientific-pedagogical theoretical constructs for analysis and modeling of didactic activities in and out of school" (Jank, M., 1991; Gudjons, 1999, p. 145). Explain and systematize forms of manifestation as well as the factors that determine the training represent the sequence of activities for planning, implementation and analysis of the training (Köck, 2000, p. 149). Didactic models are characterized by special features (reduction, accentuation, transparency, perspective, productivity) that describe their capabilities, but also suggest that a model can not cover all aspects of didactic activity in its entirety.

The specificity of primary school pedagogy directs the didactic modeling of the learning process to constructivist didactics. Here the learning process aims at developing three basic skills in learners - the ability to "identify, assimilate and solidify in all dimensions of life" (Klafki, W., 1996, p. 90). In this sense, three groups of tasks are modeled in the learning process: theoretical-prognostic, projective-constructive; applied and realizing. In the didactic model of primary school pedagogy training, learning itself is understood as an interactive process in which the role of participants who can develop their strengths is decisive. A key objective of the didactic model is building the ability to communicate and co-operate, to creatively solve problems, to build one's own welfare. To achieve this goal, it is suggested that thematic issues include projects related to the public function of education. In this way, the didactic model focuses on a "prospective scheme for constructing learning" (Klafki, W 1985, p. 215). The elements of the perspective scheme in the didactic model of training are:

- Observed competencies trained by learners;
- The methods by which these competences develop - which learning methods are selected and combined;
- Challenging and reflexive learning.

In the didactic model of primary school pedagogy training, learning is "the learner's own constructive achievement" (Jank, M., 2003). Students are not passive recipients of knowledge, they are active self-governing learners. They are capable of planning their learning, of organizing it, of doing it, of evaluating it. In turn, the lecturer is less a mediator of knowledge and a more assistant supporting the implementation of the learning process (Gudjons, 2003).

Didactical modeling is classified into the research methods of academic education. It is a process of creating, exploring and using learning-communicative models, managing pedagogical processes, combining pedagogical models and concepts related to learning content, purpose, and prognostic perspectives. Depending on the interdisciplinary specificity of the subject "Primary School Pedagogy", this method emerges as a leader in the design of pedagogical situations, simulations, case studies and case studies. This is a modern method that, through its constructiveness and prognosis, provides a transition from the level of knowledge, skills, habits, attitudes to a higher level of intellectual development of learners. The application of didactic modeling in student education is also found in other teaching practices. Such a practical research approach is found in the seminars described by Doncheva, Y. (2017) on the Methodology of Social Education. In the description of Seminar Workout No. 2, it is obvious that the work is not only at the level of knowledge but also at the level of cognitive-practical reflection. It requires a "psychological justification of the tasks of educational and personal work in personal and social terms"; seeks pedagogical competence to comment on the "spheres of the student personality - cognitive, intellectual, socio-moral, aesthetic". In the context of the pragmatological-theoretical analysis of the educational process, the author aims to "guide students to understand the curriculum as a system and structure: what are the global themes, what are the connections between them, cognitive accents" (Doncheva, 2017).

The implementation of didactic modeling in the subject "Primary School Pedagogy" leads to the development of students in two-way skills: - professional competences, competences for cognitive modeling. In this sense, didactic modeling is also understood as a process in which skills are developed to organize manageable forms in the learning process. According to N. Tsankov, "modeling in learning unconditionally leads to the development of thinking, to activation of the processes in the motivational-cognitive sphere, to the application of the acquired knowledge in new problematic situations" (Tsankov, 2010).

Characteristic features of didactic modeling in the process of initial school pedagogy are:

1. Multi-dimensionality. Its application is expressed in several aspects:

- modeling of conditions in which learners develop learning-pedagogical competencies;
- modeling of thematic projects where learners develop professional competences;
- modeling pedagogical situations in which learners apply observable competences;
- modeling of pedagogical simulations in which learners develop from observable competences different roles and roles.

2. Axiology and Holisticity. Leading aspects of didactic modeling in primary school pedagogy are axiological and holistic. The value vision of primary school pedagogy builds on these two principles. They are the reason for the didactic modeling to be directed through the cognitive knowledge of holistic axiological communication. In other words, modeling conditions for developing skills and attitudes for non-violent communication, assertiveness, developing tolerant relationships. The specificity of the holistic-value knowledge also raises questions about how to actually happen in real time; how and where to sit and experience to be valued, first of all emotionally, and then professionally - pedagogically. Here it is taken into account that personal knowledge and value reflection are leading in the whole pedagogical process of primary school pedagogy. The contemporary Bulgarian and English-language scientific and practical literature describes a number of interactive forms, methods and tools that would, to a certain extent, be appropriate for the development of value reflection on knowledge. The training direction, through such interactive means, is to develop (to a certain extent) the self-control in constructive situations related to the development of practical skills - "here and now". The purpose of pedagogical holistic-axiological knowledge is that the learner (the student) experiences, experiences, overcomes internal conflicts and stereotypes and takes real-time pedagogical solutions to real situations. A major educational motif in such pedagogical

realities is the development of pedagogical skills for students to work in the "global classroom of modern society". The need for such a holistic model of primary school pedagogy training is outlined by the trend of global communication in a supranational community; the need to develop pedagogical skills for managing processes and conflicts in intercultural and international society.

Teaching and learning in the process of primary school pedagogy is seen as a structured didactic model. This didactic model is different from the model involving the didactic transposition of knowledge. Didactic models provide the opportunity to capture those aspects that learners have the opportunity to construct and interpret as correlations between these and opinions; to organize space for experiences that make sense to them and the interpretations they form.

3. Flexibility. Designed models (a symbiosis between methodology and modeling didactic conditions) are seen as mediators between the learner's skills to interpret a problem and the many aspects of this problem. Models are considered as flexible structures for understanding and mastering their own experience, providing organized support for interpreting and understanding new phenomena. A characteristic feature of didactic modeling here is that modeled conditions develop observable skills and competencies for a certain level. For each next level, models relate to a higher pedagogical-didactic competence. The learning process, the didactic materials, the place and time of the training, the tools and methods of work used are flexible to the modeled learning conditions. This so-called learning arrangement is directly geared to the different levels and levels of development of the learning process; as well as the planning and implementation phases. Thus, by developing each of the elements in the didactic model, the learning process can be considered and explored from a different scientific theoretical position - be viewed through a different didactic perspective. In this sense, it is important to say that learning to doctrinal competence - planning, reflection, activity, model of behavior requires not only the acquisition of experience in the teaching process but also the justification through theoretical concepts (Vassileva, M. 2016 .). It is this active interconnection - between theory and practice - the prerequisite for building the didactic competence and the didactic model of behavior in the students - pedagogues. In this sense, and CC. Flechsig (Flechsig, 1996). stresses that the teacher is not an immediate regulator in the learning and learning process - he is rather a moderator in an open learning environment and operates under a wide range of learning situations. In this way, the learning and training process is indirectly influenced by the design of learning environments and situations.

Theoretical-empirical model of a didactic matrix for the training of students in the subject "Primary School Pedagogy"

Didactic modeling in the process of primary school pedagogy is present in all thematic, theoretical and pragmatic levels of academic education. Didactic modeling outlines a sustained reflexive-step learning process through a constructed didactic matrix. It is implemented in a simulation-based pedagogical learning environment. The didactic matrix is modeled in four integrally related levels: theoretically, empirically, operatively and reflexively-creative.

The generalized theoretical presentation of the didactic matrix refers to a model quoted by Vasileva, B. (2016). Referring to theoretical sources, she writes that the overall process of didactic modeling can be conditionally divided into four stages. These four stages have been synthesized and materially adapted to the needs of didactic modeling in the training of student pedagogues. The didactic model was formed in the following five structural model.

1. Cognitive level: description of pedagogical objects, phenomena, creation of image models - visualizations, work with texts. Didactical modeling relates to a particular subject / subject area.

2. Analytic-synthetic level: modeling of multi-component systems - working with sets of individual objects, revealing internal interactions between objects in each set. Didactical modeling is related to project-based learning.

3. Practical-applied level: Aspects of the relationship in the field of initial pedagogy are considered as a first step in the "intellectual modeling". Didactical modeling correlates with problem-oriented learning.

4. Generation level: Generate ideas, models, suggestions. A transition is made to true modeling. In addition to the transition from reality to the model, the reverse transition from the model to its prototype as well as from the created model to a new model with a higher degree of abstraction is applied. Didactical modeling is done by solving case studies.

5. Integration level. This level includes the higher level of didactic modeling - not only the development of skills but also the implementation of a complex of integrative management skills and content manipulation with ready didactic models. The empirical model of the didactic matrix is built into the theoretical basis. Content is filled through the following three training projects: pedagogical essay, presentation, simulation model of teamwork "Inter-expert battles".

The operational part passes through several identical stages of operation.

First stage - Self preparation and acquaintance with scientific-theoretical sources. Students are given the opportunity to learn about the scientific and theoretical material related to the course of study without the participation of a lecturer. In order to pass the self-study more purposefully and successfully offer a pedagogical question on which to think. The question is so designed as to cover the entire theoretical material.

Second Stage - Presentation of the pedagogical essay. Self-reflection and assessment by student jury on previously announced criteria. Theoretical dialogue with lecturers, comments, discussions, debates.

Stage Three - Independent preparation and introduction to practical-applied methods and computer tools for presenting a thematic presentation. Students are given the opportunity to independently learn about the requirements of public speaking, managing active dialogue and designing pedagogical behavior in public.

Stage four - Presentation of the thematic presentations. Self-reflection and assessment by student jury on previously announced criteria. Theoretical dialogue with lecturers, comments, discussions, debates.

Fifth stage - Teamwork. Students develop a written response to a didactic case. The text is constructed according to specified criteria. The role of the first student is to write the answer. The role of the second student is to write the review. In case of a negative review, the text is returned for correction.

Stage Six - In front of the academic audience, the two students present the answer from two different points of view: the writer and the reviewer.

The three main empirical models - essay, presentation, dialogue - are strictly taxonomic and personally reflexive. They relate to the different models of perception, learning, memorization, reproduction, and value reflexes. They are operationalizing the application of the holistic approach - each student is conditioned on his strong side and develops the other not so well-known personal qualities.

Summary.

The present didactic modeling of learning is a theoretical and practical reflection of teaching experience that develops in an academic environment. Here was presented a generalized theoretical model of learning experience collected by students 'and teachers' reflections. In a near future, these theoretical reflexes will be summed up in a new empirical study so as to seek comparable benchmarks for the quality of learning as a product of didactic modeling. Moreover, this modeling gives specificity and direction to the simulation-based learning environment described by R. Neminska's author's monograph (2015). In the didactic modeling process, the simulation method is used. It provides an opportunity for modeling a learning environment in which, through the didactic matrix, students have the opportunity to pedagogically experiment and develop teaching skills. In this didactic model, teachers define their way of teaching, taking into account the different ways of learning. Students who begin an academic study interact with the learning or learning environment. Students set their own discipline goals, develop pedagogical-professional skills to complete their training successfully. But the most important driving force in this didactic model is the reflexive-evaluative reflection. Students are given the opportunity to interact with everyone in the university area, to overcome the fear of questions and different opinions, not to give up in unsuccessful attempts.

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