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## Didactic Foundations and Educational Effects of Individually Planned Instruction<sup>2</sup>

## **Extended summary**

Individually planned instruction is a system of individualized instruction, the didactic foundations of which have not been fully elucidated yet. In fact, there have been no attempts by local researchers or educators to validate the educational effects of this type of instruction as provided in the local context, especially in terms of the organization of instruction, the teaching staff, as well as material and technical circumstances and conditions.

The aim of the theoretical part of the research was to develop and operationalize the didactic foundations of individually planned instruction. It was possible to provide the theoretical foundations and models of individually planned instruction more comprehensively by identifying the thematically overlapping, contemporary didactic paradigms (phenomenological and constructivist), didactic theories and innovative instruction systems. The students' place and activities in individually planned instruction were clarified, as well as the activities, functions and characteristics of the teachers' instruction style, along with the key teacher competencies needed to plan, prepare, carry out, and evaluate the individually planned instruction. The macrostructure and microstructure of individually planned instruction were also developed and expounded.

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The aim of the empirical part of the research was to determine the educational effects of the individually planned instruction. Given the nature and complexity of the problem researched, both quantitative and qualitative approaches were applied. The experimental action research was carried out on a sample of 150 students, while the experimental sample consisted of 16 participants in the experimental group and 16 participants in the control group. Individually planned instruction was the experimental factor or the independent variable. One activity that preceded the carrying out of the experiment was the creation of personal student profiles and planning individualized instruction programs in the zones of proximal development of the students in the experimental group. The control group was taught in the traditional, non-individualized way. The process of implementation of the experimental factor allowed for the analysis of the students' educational achievements, while the individualized instruction programs were amended, as and when needed, to make them optimally effective.

In the course of one year, the experimental group received didactically founded and individually planned instruction in the Serbian (native) language and mathematics. In this period, this group achieved the results that were more statistically significant relative to their initial situation and the achievement of the students in the control group who were taught in the traditional, non-individualized way.

The better achievement of the experimental group was identified in the following variables: literary text analysis, the speed of reading silently and aloud, grammar and orthography, and the culture of written expression. The individually planned Serbian language instruction did not significantly influence the students' vocabulary development.

Compared to their initial knowledge and the achievement of the control group, the students in the experimental group demonstrated a statistically significant improvement after being exposed to individually planned mathematics instruction. The improvement was identified in the area of adding and subtraction, as well as in the area of geometric figures. When it comes to multiplying, division, measures and measurement, the students in the experimental group showed improvement relative to their initial knowledge, but not in comparison with the students in the control group.

Compared to the initial testing, and relative to the control group that had been taught in the traditional (non-individualized) way, the individually planned instruction generally brought about better educational effects within the following variables: the ability to learn mathematics independently, the ability to learn Serbian language independently, verbal creativity, as well as the self-evaluation of motivation, habits, and learning techniques. The individually planned instruction did not significantly influence the improvement of socio-metric status of students and their self-image.

Given the complexity of planning and preparation, and many obstacles in the implementation and evaluation of the individually planned instruction in regular classes ( with more than 24 students), the applicative value of the individually planned instruction is evident in: remedial classes, additional classes, instructional classes, preparatory instruction, coursework instruction, distance learning, specific forms of school work (the so-called combined-class instruction, outdoor instruction, instruction during children's half-day or full-day stay at school), art schools (music, ballet, acting, art, designer schools), sports schools, high schools, and vocational schools.

The elements of the individually planned instruction can be incorporated in other innovative teaching systems such as: inclusive instruction, mentoring, heuristic instruction, problem-based instruction, vitagen instruction, as well as in other forms of individualized instruction (instruction with different levels of complexity, individualized teaching using instructional paper slips, microteaching, the branching model of programmed teaching, etc.)

The stages of planning, preparation, implementation, and evaluation of the individually planned instruction are very complex. The implementation of this humanizing-emancipating variant of the system of individualized instruction requires the presentation of the research results on its effects in different school subjects, its incorporation in the academic courses of teacher education faculties, as well as in the programs of continuous teacher professional development trainings. Only then, and probably after a longer period of time, will this form of instruction become applicable in educational practice.

**Keywords**: individually planned instruction, didactic foundations, educational effects, student profile, individualized instruction program, experimental action research.

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