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ACADEMIC TEXTBOOKS AS A MEDIUM FOR STUDENTS' INTELLECT DEVELOPMENT IN TEACHING MATHEMATICS

Abstract. *The aim* of the publication is to demonstrate the implementation results of the “Mathematics, Psychology, Intellect” (MPI) educational project used for selecting and devising the new textbook content for multipurpose learning activities and students' intellect development in comprehensive schools.

The methodology, based on the psycho-didactic approach, involves the analysis of the existing experience of textbooks development, including the traditional reference and narrative books, and the ones, organized as a dialogue with a student-reader and oriented toward the facts comprehension and reasoning. In the context of the reader-oriented theory, the author proves the advantages of special developmental materials complying with the enrichment model.

Research results describe mathematical textbooks and learning materials development for secondary schools including students' books, practicum and workbooks for independent study, and computer software for the 5 to 9th-year students. Secondly, the authors denote the psycho-didactic typology of and requirements for developmental texts.

Scientific novelty is related to the specificity of the given academic texts, conveying the structure of the formal mathematical knowledge on the one hand, and on the other hand - developing the basic components of students' mental experience (including cognitive, conceptual, metacognitive and intentional ones), and creating the conditions for exercising the individual cognitive styles.

Practical significance results from activating the individual intellectual resources of school leavers, developing their learning ability and readiness for the future innovative professional and personal life.

Keywords: mathematical education, psycho-didactics, students' intellectual development, academic texts, multipurpose learning activities.

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