

EXPERT OPINION

By Prof. Dr. Senya Petrova Terzieva-Zhelyazkova,
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regarding the dissertation thesis entitled:

“Adaptive Training Models in Technical Vocational Education According to Students’ Professional Abilities and Interests”

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Scientific Supervisor: Assoc. Prof. Dr. Iliana Petkova

1. General characteristics of the dissertation work

The dissertation submitted for evaluation addresses a professional field that is comparatively less represented in contemporary scientific research, namely Vocational education. The problem examined by Eng. Iliyan Vasilev concerns three fundamental components that determine the quality of education: (1) students’ abilities and interests, which enhance their motivation for learning; (2) the labor market, within which they seek professional realization; and (3) the vocational education system, through which they acquire the relevant knowledge and skills.

The study is structured into an introduction, four chapters, a conclusion, references, and appendices. It is grounded in a clearly articulated conceptual framework and well-defined research questions. The aims and objectives are logically formulated and are fully aligned with the object and subject of the study. The inclusion of 249 scholarly sources demonstrates both the breadth and the depth of the scientific inquiry undertaken.

2. Content analysis of the dissertation

The first chapter has a fundamental theoretical character. In it, Eng. Iliyan Vassilev begins with terminological explanations of the concepts of “model”, “educational model”, “training model”, “modeling”. He analyzes the specifics of secondary vocational education, examines the possibilities for applying the synergistic approach in vocational education. The strength of this chapter is the systematic presentation of the different classifications of models. A critical analysis of the distinction between didactic, educational and instructional models has also been carried out, which demonstrates high theoretical competence. The doctoral student convincingly argues the need for adaptability and flexibility of modern educational systems.

The second chapter is the core of the dissertation research, where the adaptive models are described: “STRONG – VET” model - for working with gifted and strong students; the “LOOSE” model - for unmotivated students; the “UM” model - for increasing knowledge in key subjects; the author's “Vassilev” model - for optimal use of study time and the APL model (Accreditation of Prior Learning). Each one is described in detail, with its possibilities for application in vocational education. Emphasis is placed on the first model, describing the time possibilities for its implementation, content and application technology.

The third chapter represents the empirical verification of the “STRONG” model. The conceptual framework is clear. The research design and methodology are the basis for formulating specific criteria and indicators for the quality of education. They are derived from the European EQAVET indicators , which makes them scientifically sound. The research methods are 4: DELPHI method, interviews with experts in the field of vocational education,

questionnaire survey among students and teachers. Each method is carefully selected to prove the research questions and hypothesis. Technical vocational education is in the research attention of Eng. Vassilev. The doctoral student surveyed 1027 students in 12th grade from 7 districts of the country: Veliko Tarnovo, Razgrad, Sliven, Smolyan, Pleven, Stara Zagora and Sofia. The questionnaire is author's and contains 16 questions with an ordinary, Likert (from 1 to 5) scale. The in-depth analysis, which is based on excellent statistical processing, is impressive. Eng. Vassilev proves each of the questions by linking them to the research questions posed. The opinion of 63 teachers working in professional areas 4.6. Information Technologies and 5.2. General Engineering was also studied. The author's questionnaire was again constructed. As strengths of this chapter, I appreciate the use of a complex toolkit and the comparative analysis of the opinions of students and teachers. The adaptation of the quality indicators to a specific target group - talented students in technical vocational education and training also makes a positive impression.

The fourth chapter is a contribution of the author, because in most cases in dissertation works only the research hypotheses/questions are proven, the obtained results are analyzed and stated. Eng. Vassilev extends the analysis to a macro level by linking vocational education with labor productivity and the need for institutional reforms. This chapter is original and demonstrates an interdisciplinary approach, uniting pedagogy and economics. Eng. Vassilev demonstrates thinking in perspective and manages to place vocational education in the context of general productivity and market trends.

I accept all formulated contributions at a theoretical and practical-applied level.

Question: *What specific regulatory and management changes in the secondary vocational education system do you consider to be priorities for the proposed "STRONG" model to be sustainably implemented at the national level?*

Conclusion: The dissertation represents a completed original and significant scientific study dedicated to a topical problem for vocational education. It combines theoretical depth and practical focus. The developed adaptive models have the potential for real application in the system of technical vocational education and meet modern challenges. This gives me reason to propose awarding the educational and scientific degree "doctor" to Eng. Iliyan Vassilev Vassilev in professional field 1.2. Pedagogy, doctoral program "Theory of Education and Didactics" - Vocational Education.

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