

## REVIEW

By Assoc. Prof. Tanya Paskaleva Stoycheva, Doctor of Public Health

Director of the Haskovo Affiliate, Trakia University – Stara Zagora

Of the dissertation work for conferral of the educational and scientific degree of Doctor  
Professional field 7.4. Public Health, doctoral programme “Management of Health Care”

**Author:** Katya Stefanova Kichukova

**Form of the doctoral course:** independent

**Department:** Management of Health Care

**Topic:** *Continuing education as a means to increase the professional competence of medical laboratory technicians*

**Academic advisors:** Prof. Biyanka Torniyova, Doctor of Pedagogy, Assoc. Prof. Tanya Taneva, Doctor of Psychology

### 1. General presentation of the procedure

The set of materials presented on paper and electronically complies with the Rules on the Development of the Academic Staff at MU-Plovdiv and includes the following documents: Curriculum Vitae signed by the doctoral candidate, protocol from a departmental meeting with a positive decision on the readiness for the defense, copies of diplomas for completed educational and qualification degrees of Bachelor and Master with the supplements, Ordinance for inscription, and Ordinance for completion with a right to defense, a list of publications related to the topic of the dissertation work, protocol from examinations – doctoral foundational exams on the specialty, Declaration of originality and veracity of the submitted documents. The presented administrative documents have been formatted properly.

The doctoral candidate has submitted three publications relevant to the topic.

### 2. Brief biographical data for the doctoral candidate

Katya Stefanova Kichukova graduated the Semi-higher Medical Institute – Sliven as a Medical Laboratory Technician in 1993, and in 2007 she acquired a Bachelor’s degree in Management of Health Care at the Medical Faculty of Trakia University. In 2012 she completed a Master’s Degree in Management of Health Care at the Medical University – Plovdiv, Faculty of Public Health.

Her professional activity started in 1989 and until 2001 she worked as a medical lab technician at the Clinical Laboratory of the Municipal Hospital of Kotel. From 2001 to 2009 she was a medical lab technician at the Clinical Laboratory of the Multi-profile Hospital for Active Treatment “Prof. Dr. Stoyan Kirkovich” – Stara Zagora (Central Clinical Laboratory). Since 2009 she has been a lecturer at the Medical College of Trakia University – Stara Zagora to students of the specialty

“Medical Laboratory Technician”. Since 2016 to the present day she has been employed as a senior lecturer at the Medical College of Trakia University – Stara Zagora.

Katya Kichukova takes part in the conduct of professional training seminars to students in the specialty “Medical Laboratory Technician” at the Medical College – Stara Zagora. As a lecturer, she has upgraded her knowledge and skills and participated in 14 courses for improving her professional qualification and Erasmus + trainings.

### **3. Pertinence of the topic and purposefulness of the set aims and tasks**

The dissertation work is dedicated to an actual problem in medical practice, related to continuing training of medical lab technicians in the context of increasing their professional competence. Under the current conditions of social, economic and value changes in our society, the importance of life-long learning is growing constantly. With a particular emphasis this is relevant to the COVID-19 pandemic conditions, which put to the test our ability to cope with challenging and complex situations where people’s health and life are at risk. The potential of medical specialists, including lab technicians faced the greatest challenge of acquiring rapidly new competences for diagnosis, testing, and treatment to a highest standard and of exceptional importance for public health.

The topic of the dissertation is notably actual, considering the objective fact that under the current conditions of accelerated development of medical science, knowledge outdates fast, which justifies the necessity for continuing training of medical lab technicians, and honing their professional competence.

### **4. Knowledge of the problem**

The doctoral candidate is well-informed about the studied matter, further aided by her broad practical experience in this area. According to the literature inquiry, on the proposed topic she has used both Bulgarian, and foreign literary sources. The total number of references is 221, of which 122 in Cyrillic, and 109 in Latin.

### **5. Research methodology**

The methodology has been presented rigorously and exhaustively. The aim of the proposed work is to study the subjective determinants of the need for continuing training as a means to increase the professional competence of in-service medical laboratory technicians, students from the same specialty, and employers (laboratory physicians). To realize the set seven tasks, three groups of logical units were formed: students, medical lab technicians, and laboratory doctors. The technical units of the study were the Medical College at Trakia University – Stara Zagora, and medical laboratories in the towns of Stara Zagora, Kazanlak, Sliven, Yambol and Radnevo.

With respect to the research methodology, the doctoral candidate has combined several main research methods, adequate to the set aim and tasks – survey, content analysis, observation. Surveys have been developed for each of the groups of respondents. The surveys represent a system of questionnaires and standardized psychological tests. The questionnaires were developed especially for the study and aim to examine the main variables and descriptors in the

work. The surveys contain three modules, each of which allows a comparison of the information for the different target groups (relevant questions for each of the target groups have been formulated). The modules are correctly structured – Social-psychological, Personal-psychological, and Professional-educational. They contain a rich number of tools in the questionnaires and tests.

The statistical processing of the empirical data was performed with the help of the STATISTICA statistical analysis package, designed for studies in the social sciences. The following main statistical analyses were used: Student-Fisher T-test, correlational analysis, dispersion analysis (ANOVA), factorial analysis, Cronbach reliability coefficient and percentile analysis.

## **6. Characteristics and evaluation of the dissertation work**

The dissertation work is presented in a total volume of 192 standard pages. It consists of an introduction, three chapters, including inferences, recommendations and conclusion, bibliography and 3 annexes. The research data are richly illustrated by 38 figures and 55 tables, which establishes an accessible and easily readable foundation of the dissertation work.

In the introduction the author reasons the pertinence and significance of the research problem and the motivation for its study.

The first chapter presents a literary review on the topic. Main problems of adult education, life-long learning, the training and employability of medical laboratory technicians have been discussed. Concepts related to the topic of the dissertation, such as *life-long learning*, *permanent education*, *continuing education*, *continuing training*, *continuing vocational training and education*, *adult learner*, *competence*, *professional competence* have been defined. The exposition is logical and subsequently covers historical data on laboratory activity as part of medicine, the influence of changes in the current world on training and employability of medical lab technicians, the ideas for education of adults and life-long learning, university education and the idea of competence through continuing training and education, continuing training and career development, professional competences, specifics of professional training of medical lab technicians, motivation for activity and learning. The actual and voluminous scientific information that was presented to us expresses the motivated response of the author based on her current research.

The second chapter of the dissertation work is dedicated to the concept of the empirical study. The presented work comprises the logically derived hypothesis, aim, envisioned tasks, the object and subject of study, contingent, units and signs of observation – factorial and resultative. The collected information is sufficient in volume in order to receive reliable results. They have been skillfully analyzed and interpreted by the doctoral candidate.

The third chapter offers a thorough, precise and exhaustive analysis of the results of the empirical study. Right here the author has shown her skills for interpreting the statistically relevant results. A large volume of statistical analysis was performed with reliable statistical procedures. The formulated summarized inferences are a result of statistically conformed analysis of frequency distributions, correlation, dispersion dependences and influences.



Twelve inferences from the empirical research were formulated, based on the analysis of the results. One of the main and significant results is that medical lab technicians think that the opening of a profiled specialization is necessary and as reasons they indicate the heightened requirements to the lab specialists and the shortage of lab technicians. They are convinced that profiled specialization would make them more successful on the labour market and declare their readiness to start one, even if it means an extended absence from work.

#### **7. Contributions and importance of the work for science and practice**

The following important scientific contributions of the present dissertation work deserve mentioning due to their methodological, theoretical and practical applied character:

1. A thorough and comprehensive study of the inclinations for continuing training of medical lab technicians has been done and the idea for life-long learning and its application to continuing professional development of medical lab technicians have been systematized.
2. The scientific information for the historical development of laboratory analyses, and the establishment of the specialty "Medical Laboratory Technician" and its development has been enriched.
3. An author's research methodology has been developed to study the subjective need of students, medical lab technicians and lab physicians for continuing training, and in particular the opening of profiled specializations for medical lab technicians.
4. The motivation for learning, exercising the profession and the motivation for achievement have been studied as major factors for continuing professional development.
5. The dissertation work is a scientific justification of the need to expand the possibilities for increasing professional competences, professional development and career growth through continuing training for medical lab technicians.
6. Inferences and recommendations for changes in the National Regulatory Framework for Life-long Learning for Healthcare Specialists have been made.

On the basis of the obtained results and the drawn inferences, the doctoral candidate has made original recommendations to state organs and educational institutions. The recommendations would significantly contribute to a quality change and new possibilities related to the continuing training of medical lab technicians.

#### **8. Evaluation of the publications from the dissertation work.**

The main results from the work were reflected in three publications in renowned scientific journals, which match completely the problematics of the dissertation. K. Kichukova is the first author of two of the publications.

#### **9. Thesis abstract**

The thesis abstract has been formatted according to the requirements. The sections of the dissertation work have been referred to properly and consistently. The thesis abstract is technically very well arranged.

## 10. Personal impressions

I have very good personal impressions from Katya Kichukova as an ethical, responsible colleague and lecturer with abilities for developing her creative potential.


## Conclusion

The presented dissertation work is a thorough scientific study on the problem of continuing training of medical lab technicians and fully meets the actual requirements for the conferral of the educational and scientific degree of Doctor.

On the basis of the distinguished qualities and contributions of her dissertation work, I firmly express my positive evaluation and urge the honorable members of the Academic Jury to confer the educational and scientific degree of Doctor to Katya Stefanova Kichukova in the doctoral programme "Management of Health Care".

13.06.2022

Reviewer:



Залчено на основание  
Чл. 5 §1, б. "В" Регламент (ЕС) 2016/679

/Assoc. Prof. Tanya Paskaleva Stoycheva, Doctor of Public Health/