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EFFICIENCY OF TEACHING CHEMICAL DISCIPLINES TO PHARMACEUTICAL STUDENTS BASED ON THE SYNERGETIC APPROACH

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INTRODUCTION

The relevance of improving quality of basic chemical knowledge and competencies [1] among students of pharmaceutical specialties is due to the fact that, in the conditions of modernization of pharmaceutical education in Ukraine, it is necessary to provide an innovative approach to teaching, taking into account the trends in a modern synergetic paradigm in pedagogy, the priority being to create optimal conditions for personal development.

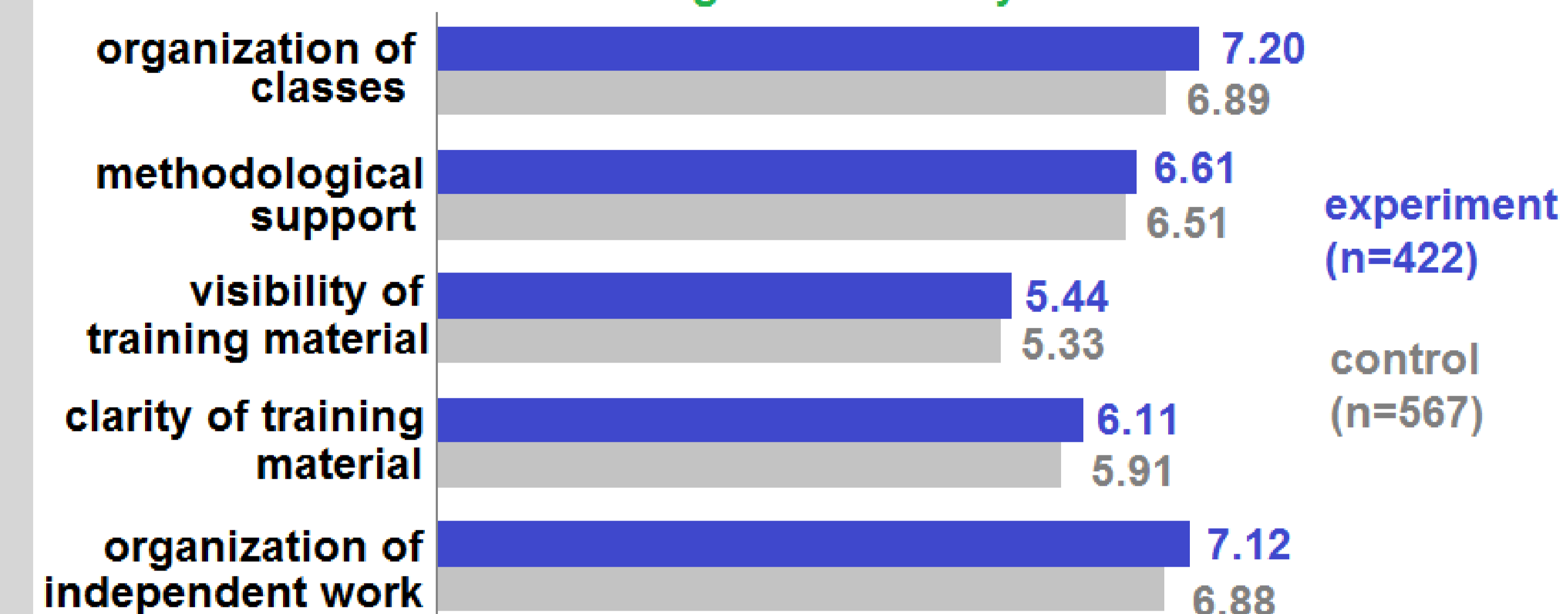
METHOD

The experiment involved 989 2nd-3rd-year students of the Pharmaceutical faculty of the Bogomolets National Medical University in the academic years of 2017/2018 and 2018/2019. The students of the control group received traditional training in Biochemistry and the study group – according to the system of innovative teaching.

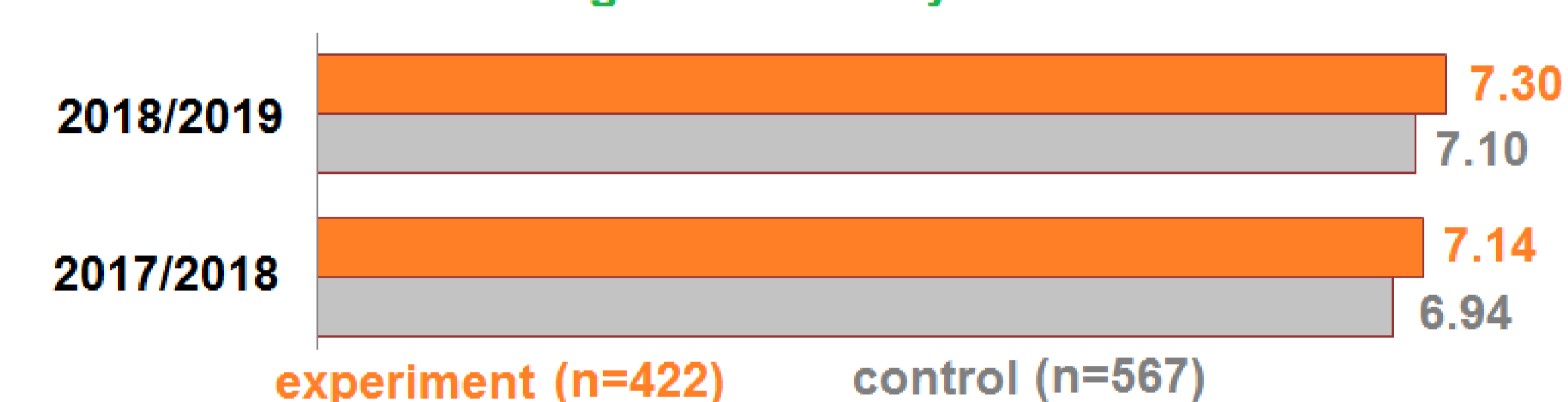
During the IV-V semesters, knowledge checks and various types of written works were systematically performed; students' satisfaction with classes and teaching technologies was assessed using the CSI (customer satisfaction index) methodology [2]. At the end of the course on the discipline, testing, questioning of the students and analysis of the level of biochemical knowledge formation were carried out, i.e. coefficient of mastering of the course content was calculated [3]. The efficiency coefficient for innovative technologies was calculated as the sum of the mastering coefficient and the student satisfaction index.

The following study methods were used: testing, questioning and methods of mathematical statistics.

The mean of students' satisfaction index with teaching of discipline "Biological Chemistry"



The efficiency coefficient of teaching of discipline "Biological Chemistry"



AIM/S

1. To test the system of pedagogical conditions that ensures the implementation of the pedagogical model of the formation of chemical knowledge in the process of becoming a pharmaceutical specialist on the basis of a synergistic approach.
2. To determine the efficiency coefficient of innovative technologies based on the calculation of the student's satisfaction index with learning.

Acknowledgments (if applicable)

RESULTS

The analysis of the results showed the following:

1. The level of knowledge formation in the study group was 0.855 ± 0.025 and 0.65 ± 0.01 in the control group. At the end of the IV semester, the mastering coefficient was higher in the study group, compared to the control group, by an average of 0.2; at the end of the V semester - by 0.22.
2. The satisfaction index was higher in the study group, compared to the control group, by an average of 0.191.
3. The efficiency coefficient for innovative teaching technologies was higher than the efficiency coefficient for traditional technologies by an average of 0.197.

CONCLUSION

The implementation of a synergistic approach, i.e. updating the contents, methods and forms of training, taking into account the factors such as openness, self-organization, self-development, nonlinear thinking, management, self-management, etc., promotes the improvement of the quality of teaching chemical subjects to the students in the process pharmacist training, compared to the traditional system.

REFERENCES

1. Iryna Nizhenkovska, Olena Kuznetsova, Violetta Narokha. Interdisciplinary integration of chemistry knowledge as a factor of professional competence in the future masters of pharmacy. Creative education: Towards competences in patient-oriented pharmacy education. 25th Annual conference European Association of Faculties of Pharmacy 15 –17 May, 2019, Krakow (Poland), Jagiellonian University Medical College, 2019 -P.83-84.
2. Linying Zhang, Zhijun Han, Qun Gao Empirical Study on the Student Satisfaction Index in Higher Education /International Journal of Business and Management- 2008- Vol. 3, No. 9. Pp 46-51
3. O. Kasyanova. Pedagogical examination of student success as a prerequisite for creating a system of internal quality assurance of higher education // Origins of pedagogical skills. 2016. Issue 18.- p.146-153