EasyChair Preprint

№ 8367

Effectiveness of training foreign students – Indian citizens to licensing integrated examinations using modern information and communication educational systems

Ivan Savka, Mykola Garas, Svitlana Savka and Igor Semianiv

June 26, 2022

UDC 378.046-021.64-054.6

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EFFECTIVENESS OF TRAINING FOREIGN STUDENTS – INDIAN CITIZENS TO LICENSING INTEGRATED EXAMINATIONS USING MODERN INFORMATION AND COMMUNICATION EDUCATIONAL SYSTEMS

Bukovinian State Medical University, Chernivtsi, Ukraine

Introduction. The system of knowledge control in the educational process of higher educational institutions of Ukraine is a necessary constituent element, which has many tools and methods of evaluation in its arsenal. Diversifying the forms and means of controlling the quality of students' knowledge is an actual problem, the solution of which is due to the needs of pedagogical practice and the prospects of integration of the educational system of Ukraine both with the European community and with the world educational medium. Nowadays, the testing control of knowledge has been applied in domestic higher educational institutions more and more frequently to evaluate educational and professional training of students.[1].

In the process of forming the national system of quality management in higher medical education, the external quality assessment – the licensing integrated examinations "Krok" have actually become a standard. The principles of testing, proposed and implemented in the practice by «Testing Center at the Ministry of Health of Ukraine», have become an integral element of the pedagogical process in teaching both the basic theoretical and profile clinical disciplines. The organization of the educational process is also influenced a lot by the requirement to evaluate current activities systematically and apply objective methods of control, which means the widespread use of testing for current and final control of knowledge at the level of separate disciplines with

an increase in the share of time allocated for evaluation, in the structure of the student's total load [2].

Testing acts as part of modern pedagogical tools and one of the areas for improving the knowledge control system in the context of controlling technologies when it is possible to formalize the educational material of individual topics and disciplines. This approach can be mostly explained by the didactic advantages of tests over other types of verification. A distinctive feature of the test is the possibility of a formalized measurement of knowledge in a quantitative and qualitative forms, which allows establishing the progress of the quality of training and perform its diagnostic analysis [3]. In order for the tests to become a reliable tool for assessing the success of the acquisition of academic disciplines, when compiling the test tasks, one should adhere to a number of important rules and take into account the practical orientation of the teaching process in a medical school, which requires the design of a test task in the form of a specific clinical situation that needs to be addressed or estimated [4, 5].

The effectiveness of education is determined by many criteria, in particular, by the level of theoretical knowledge and practical skills acquired by the student. LII is one of the main ways of controlling the student's knowledge and willingness to work as a doctor. The system of licensing integrated examinations is a complex of means of standardized diagnostics of the level of professional competence. The purpose of the LII is to establish compliance of the level of professional competence of the graduate with the minimum required level in accordance with the requirements of the State standards of higher education. Most of the questions in clinical discipline are based on clinical problems, when the student's attention is drawn to the clinical picture of the disease and sometimes the findings of the basic paraclinical examination. The students are asked to make the correct diagnosis or to choose the treatment for the patient, and you can guess the correct answer «in a logical way».

At the same time, it should be noted that the licensing exams in other countries are somewhat different. Since the bulk of foreign students studying at HSEI of Ukraine «Bukovinian State Medical University» (BSMU) arrive from India (more than 80%), one of the main elements of control in the graduation stage in distance education is the control of training for students to the preparation of LII «Krok 2. Medicine» and the exam for medical diplomas evaluation in India - Foreign Medical Graduate Examination (FMGE) [6]. FMGE was made compulsory through Screening Test Regulations 2002 aiming to assess the in-depth knowledge of a candidate. An Indian citizen possessing a primary medical qualification awarded by any medical institution outside India who is desirous of getting provisional or permanent registration with Medical Council of India or any State Medical Council on or after 15.03.2002 shall have to qualify a screening test conducted by the prescribed authority for that purpose. It must be taken into account that mere appearance in FMGE does not ensure the right to secure provisional or permanent registration. Candidates will be required to fulfil the criteria laid down in the Indian Medical Council Act [7, 8].

Purpose is to study and to improve the effectiveness of training the graduates of medical faculty- Indian citizens to licensing integrated exams «Krok 2. Medicine» and MCI, by analyzing training options and by comparing to the results of their passing.

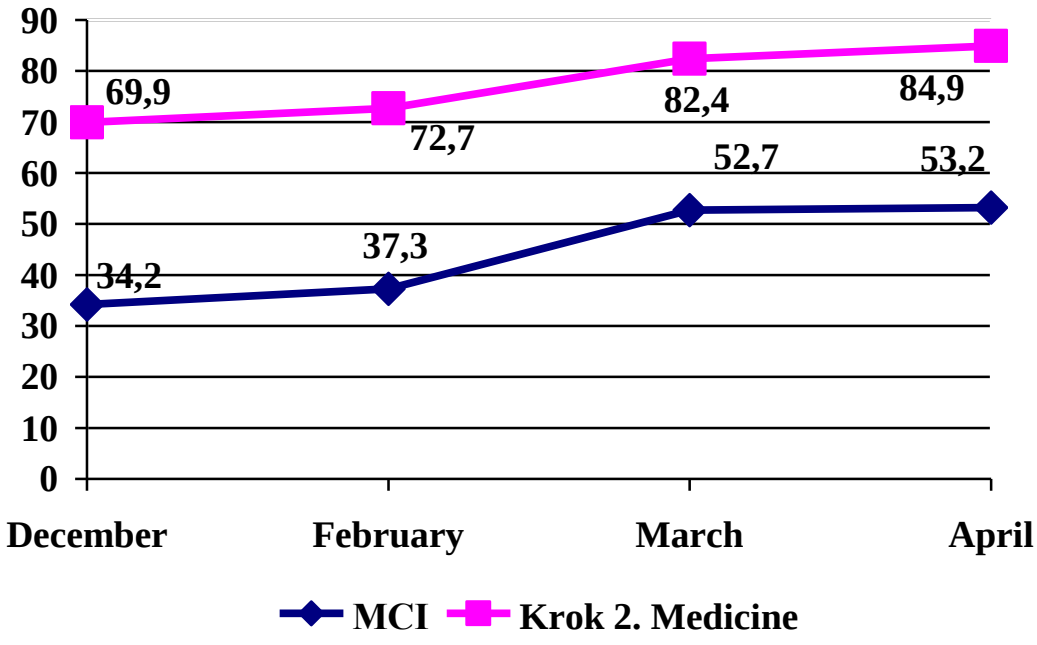
Material and methods. The monthly results of control tasks according to the variants for preparation for the LII and the results of the LII «Krok 2. Medicine» and MCI in 49 students-citizens of India, BSMU graduates have been analyzed. The distance training of the graduates to LII «Krok 2. Medicine» was conducted on the portal of distance learning, which presents test questions of an open base on the main profiles, namely: therapeutic, surgical, obstetric, gynecological, pediatric and hygienic, as well as test questions of booklets of the past years. The level of students' activity on the training portal is analyzed

weekly, the diagnostic-training testing (DTT) in a distance or written versions are done monthly.

In order to prepare students from India for taking the MCI exam, the MOODLE distance learning server also introduced electronic training courses for foreign citizens operating in training and supervisory regimes and covering 22 units of fundamental and clinical medicine. The control over the level of preparation for graduate students is conducted monthly by analyzing the results of remote testing on the portal of preparation for the LII.

Results. Taking into account the dynamics of preparation for the LII, the results of DTT in the format of «Krok 2. Medicine» and the results of the remote testing using the questions of the MCI examination have been analyzed (Figure I).

Figure I. The results of monthly preparation of graduates for the licensing integrated examinations, %



There was a constant positive dynamics of students' training results. The most effective growth rate was recorded in the February-March period, probably

due to the growing motivation of students in the spring semester due to the approaching terms of the examinations, regained energy after the winter holidays, the possibility of independent outside classroom training at the beginning of the semester (less workload due to lack of modular tests) .

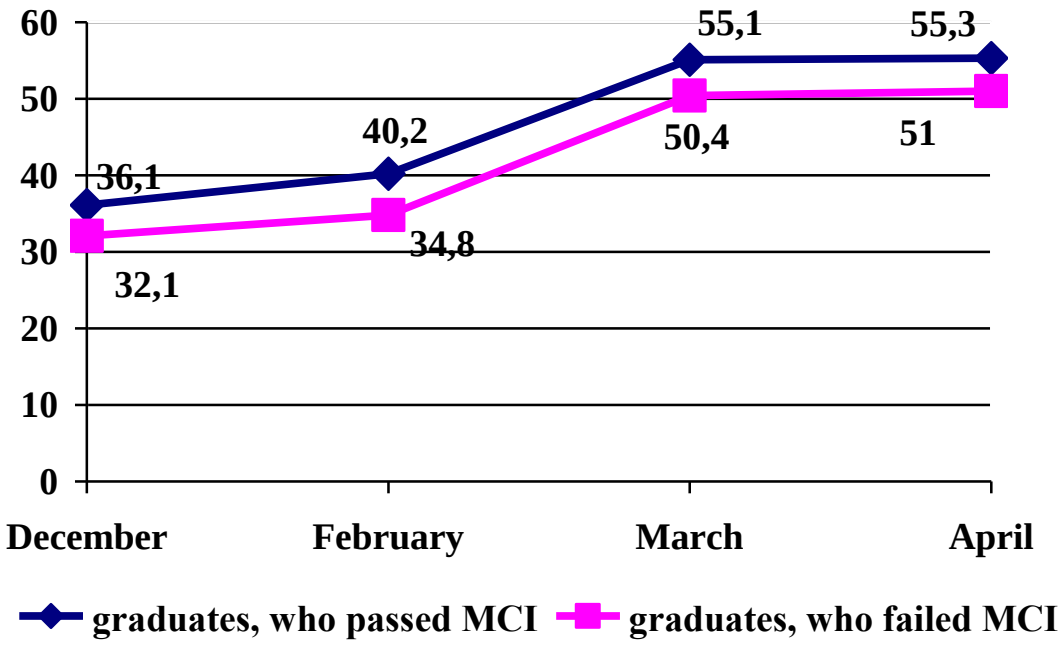
Whyle analyzing the progress in LII (Table I), we draw attention to the reliably higher rates of absolute progress and the percentage of correct answers in the course of the examination «Krok 2. Medicine». Taking into account the results of the exam in the homeland, the results of preparation for both licensing exams in the subgroups of students depending on the score of the MCI exam («passed» – «failed») have been analyzed.

Table I. Progress in taking the licensing integrated examinations

Licenced integrated examinations	Share of graduates who have passed, %	Mean % of correct answers among those who have passed
Examination «Krok 2. Medicine»	100	88,0
Examination MCI	53,1	57,1
p	<0,05	<0,05

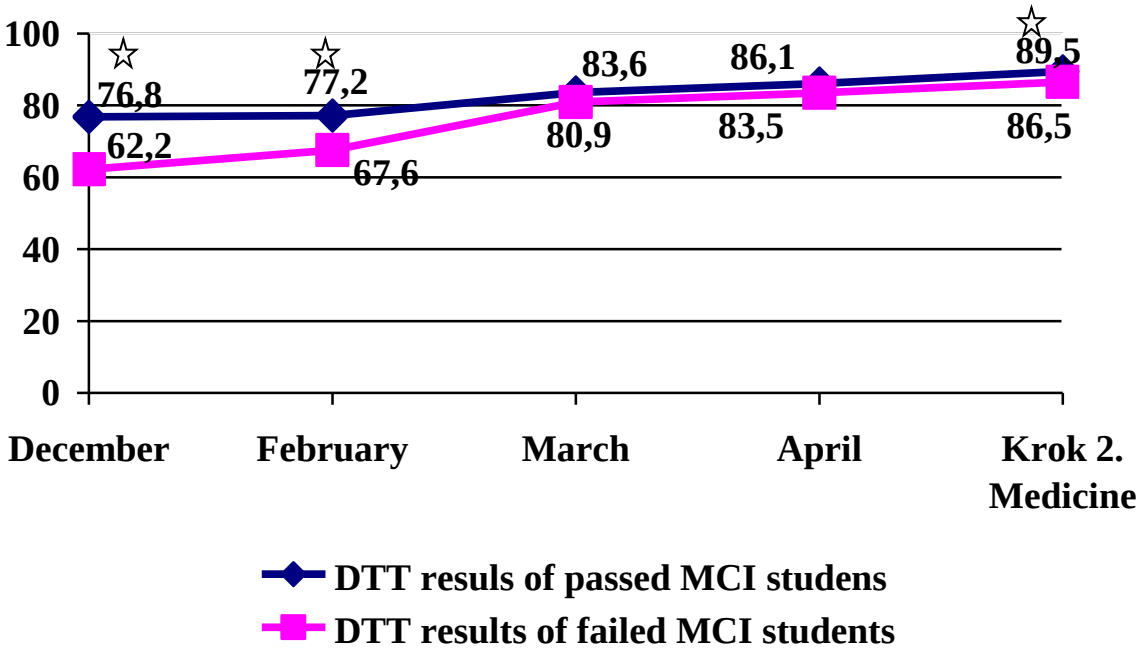
Those graduates who did not pass the examination tend to show worse results in taking the licensing exam in their homeland than those who passed it (Figure II).

Figure II. The dynamics of preparation for the examination MCI in subgroups of foreigners, depending on its results, %



At the same time, with the discrete analysis of the results of preparation for the «Krok 2. Medicine» in these subgroups, the attention is drawn to the reliably lower level of the results of certain DTTs and the examination «Krok 2. Medicine» of those six-year students who will not subsequently pass the MCI exam in India (Figure III).

Figure III. Dynamics of preparation for the "Krok 2. Medicine" examination in subgroups of patients depending on the results of the MCI, %



A reliable positive relationship was established between the results of all monthly DTTs and the results of LII «Krok 2. Medicine» ($r=0,45-0,51$, $p<0.05$). At the same time, the results of any of the monthly analytical control tests in preparation for the MCI examination did not seem to correlate with the results of the graduation examinations in the homeland. The reliable relationship between the results of «Krok 2. Medicine» and MCI has not been found either.

Discussion. The latter is a qualifying screening test for those Indian citizens who want to have medical education and who studied outside the country and are seeking registration with the Medical Council of India (MCI). The questions in the structure of the MCI exam are somewhat different in nature: most of the questions are not constructed in the form of clinical tasks, but are factual, that is, the student needs to know the fact (baseline data) on which the question is based, but the «logical path» is not working. Such a difference in methodological approaches has, for a long time, caused difficulties

for foreign students - graduates of Ukrainian medical higher education institutions when passing licensing examinations in their homeland [6, 9, 10].

The more pronounced positive dynamics of training for the «Krok 2. Medicine» is noteworthy as well, since a short-term motivation in this case is more meaningful (the exam in May of the current year compared with the exam in their homeland in December), as well as due to the integral component of the educational process (exam «Krok 2. Medicine» is part of the final certification of graduates, while the MCI exam is the first step in the postgraduate training phase). In addition, postponing the exam in India in time from the time of completion of training is due to the lack of external control over the training process and the imperfection of self-control elements of graduates in their homeland. In some ways, these results are also explained by the fact that the questions in the format of «Krok 2. Medicine» of the corresponding profiles are included as one of the stages of the final module control of the corresponding disciplines, which involves their taking not only during the monthly DTT, but also during the final control of each discipline.

Higher rates of absolute progress and the percentage of correct answers in the course of the examination «Krok 2. Medicine» can be explained by more intensive training and the distinction between its structure by discipline and the type of test questions itself, in particular, the MCI exam covers disciplines of fundamental and clinical profiles, test questions can predict both one and several correct answers and are constructed on the factual basis that requires the possession of factual material from more disciplines [9, 11].

Based on the results of the correlation analysis, it can be assumed that the relationships identified reflect the principles of forming the final content of the tests, in particular, the booklets LII «Krok 2. Medicine» are proportionally structured according to the disciplines, contain a part of the tasks from a known base of previous years, at the same time their solution involves a structured and logical way to choose one, the most correct answer [4]. At the same time, the

content of the tasks of the MCI examination is characterized by an annual full refreshment of test questions, it does not provide clear proportions between theoretical and clinical disciplines, the choice of the correct answer depends on the clear assimilation of the theoretical material of the disciplines [8, 12].

Conclusions

1. The final results of examinations «Krok 2. Medicine» and MCI attained by Indian students of the BSMU testify to the high efficiency of the methods of their preparation.
2. The mentioned relationships are indicative of a different format of the final tasks of the integrated integrated examinations «Krok 2. Medicine» and the MCI.

Conflicts of interest

There are no conflicts of interest.

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