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The correlation of Indonesian dentist compete... based examination to grade point average and length of study in Dentistry Faculty, University of Jember, Indonesia

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BACKGROUND : In order to protect the public from incompetent health workers, the Indonesia Government through the Health Regulation No. 29 year 2004 requires that each graduate of dental education institutions to take Indonesian Dentist Competence-based Examination (IDCE) as a requirement of obtaining a license to practice. It has been started since 2007. Faculty of Dentistry, University of Jember is one of the educational institutions that have produced dentists since 1995 and its graduates regularly follow IDCE.

OBJECTIVE : To figure out whether the dentists who have been passed IDCE (competent), are correlated with their Grade Point Average (GPA) and length of study at the Faculty of Dentistry University of Jember.

METHODS : The data were achieved from Indonesia Dental Collegiums and Academic Divisi... ... Dentistry University of Jember year 2012.

RESULTS : The result showed that the gradua... of Dentistry University of Jember in 2012 ... with the highest GPA was 3.46 and the lowe... the average length of study was 6 years 9 mo... The highest score was 69 and the lowest 37 i... 0-100.

CONCLUSION : The result of competency ... correlated to GPA (R= 0.116) and Len... (R=0.071), however, almost the incompet... IDCE were the dentists with GPA lower th...

Key words : examination, Indonesian, compe... Jember University

The Correlation of Indonesian Dentist Competency-based Examination to Grade Point Average and Length of Study in Dentistry Faculty, University of Jember, Indonesia

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INTRODUCTION

- In Indonesia there are 26 (until year 2012) dental educational institutions, one of which is the Faculty of Dentistry, University of Jember. This Institute is located at East Java. The Indonesian dentist education curriculum uses a content-based curiculum and since 2005 the paradigm of the educational curriculum has changed from a content-based curriculum to a competency-based curriculum using the small group discussion or problem base learning (PBL) learning method.

- Minimum length of education is 10 semesters, divided into academic level education level and professional level education level of Dentistry Faculty of Jember University that have produced dentists since 1995. Total graduates until August 2013 were 1177 graduates with an average of 80 graduates per year. The number of lecturer are 85 person.

- The management pattern of health education institutions is not too different from that of medical education for both doctors and dentists, because all educational institutions are only in 2 forms of management, namely institutions managed by government-owned institutions and those managed by the private sector. However, variations in the quality of education delivery are still visible in all types of education for health workers, including dentistry education.
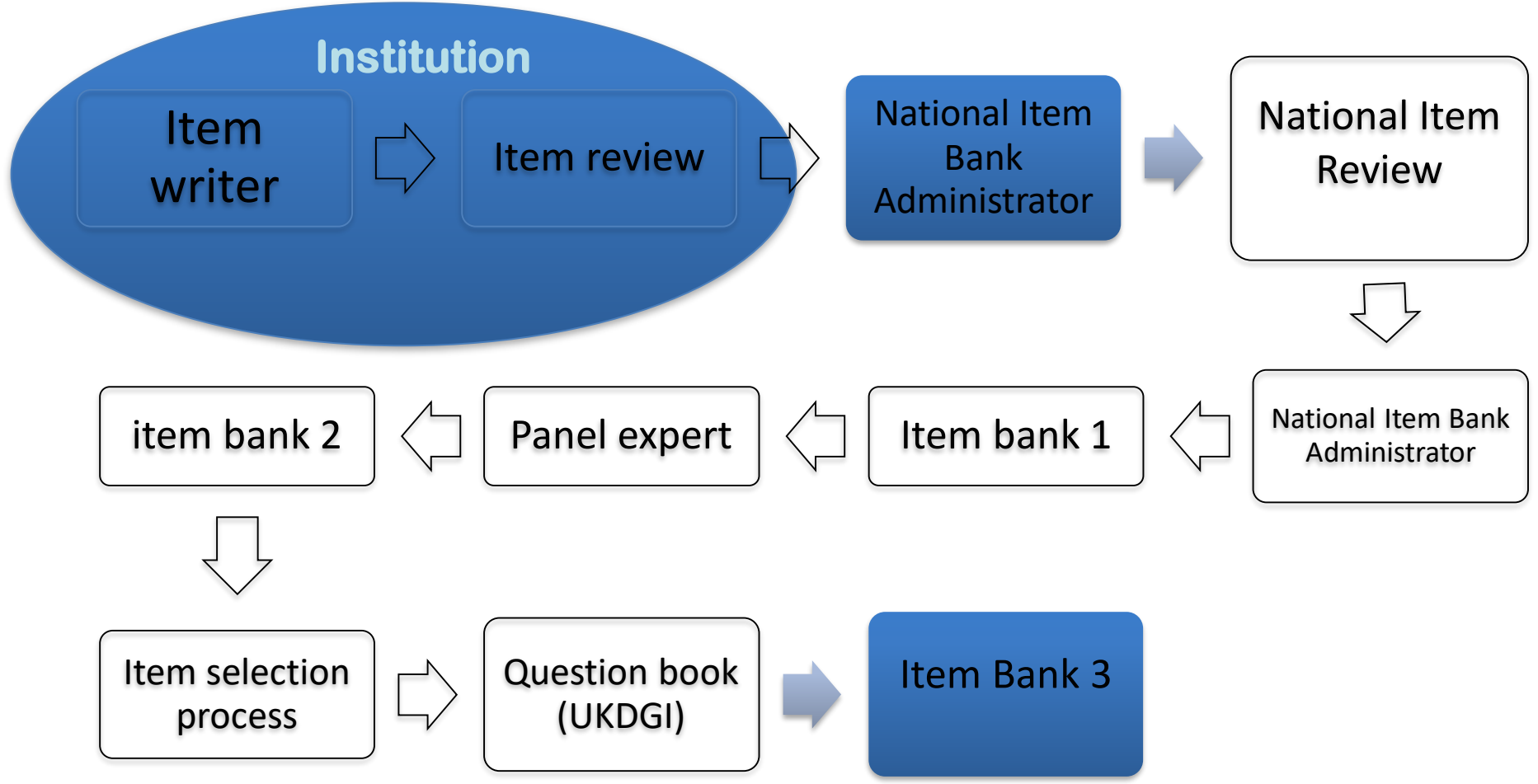
- Efforts to standardize have been made by the government and leaders of educational institutions through various approaches including standardizing the input and process aspects of education with the standardized institutional accreditation program. Meanwhile, the output aspect of the education program has been carried out by means of a competency test for health workers who will be graduated from their educational institutions.

- In order to protect the public from incompetent health workers, the Indonesia Government through the Health Regulation No. 29 year 2004 requires that each graduate of dental education institutions to take Indonesian Dentist Competence-based Examination (IDCE) as a requirement of obtaining a license to practice. It has been started since 2007. and its graduates regularly follow IDCE.

- Indonesian dentist competency examinations are conducted 4 times / year, namely January, April, July and October. Examinations include a theoretical exam using a Computer Based Test (CBT) and a practical exam for the Objective Structured Clinical Examinations (OSCEs) method using Computer Based Scoring Eight (8) OSCEs stations were incorporated into the Indonesian Dentist Competency-based Examination. This test was performed as a condition of obtaining permission to practice

Flow chart of Item Bank Administration
In Indonesian Dentist Competency-based Examination

Institution

Item writer → Item review → National Item Bank Administrator → National Item Review

National Item Review → National Item Bank Administrator → Item bank 1 → Panel expert → item bank 2

item bank 2 → Item selection process → Question book (UKDGI) → Item Bank 3

OBJECTIVE

- To figure out whether the dentists who have been passed IDCE (competent), are correlated with their Grade Point Average (GPA) and length of study at the Faculty of Dentistry University of Jember

MATERIAL and METHOD

- The data were achieved from Indonesia Dental Collegiums (theory/cognitive test result and objective stuctured clinical examination result) and compared to data of graduate's length of study and GPA taken from Academic Division of Faculty of Dentistry University of Jember year 2012

- Standard Settings for Determining the Passing Limit Value of the theory exam are determined by Independent Judges from several educational institutions using Modified Angoff Methods (Absolute Method)
- Standard Setting for the determination of practical exam competence (OSCE) using the Boderline Regression Methods

RESULT

Theory examination using Computer Based Test (CBT) in several examination centers

OSCE Stations. The examinee reads the scenario case in the front of station before starting

The examinee performs anamnesis and is observed by examiner

Table 1. The Comparison of cognitive test result between National and University Score Average in Indonesian Dentist Competencies-based Examination year 2012

Periods	No. of University Examinee	No. of National Examinee	University Score Average	National Score Average	Passing Grade
January 2012	20	343	50.3	51.7	50
April 2012	21	371	60.3	61.9	50
July 2012	27	417	56.4	57.2	50
October 2012	22	370	56.2	57.5	50
Average	**23**	**377**	**55.8**	**57**	**50**

Table 2. The Comparison of OSCEs result between National and University Score Average in Indonesian Dentist Competencies-based Examination year 2012

Periods	No. of University Examinee	No. of National Examinee	University Pass (%)	National Pass (%)
January 2012	20	343	100	100
April 2012	21	371	95	94.49
July 2012	27	417	100	92.59
October 2012	22	370	100	94.00
Average	**23**	**377**		

Table 3. The Length of study and GPA the dentist who graduate from Jember University In year 2012

rata rata lama studi	rata-rata IPK	IPK tertinggi	IPK terendah
6 Year 9 Month 16 Day	2.9	3.49	2.42

Table 4. The Correlation between the length of study and GPA to the examination score achievement in Indonesian Dentist Competency-based Examination In year 2012

Variable	Coefisen correlation (R^2)
Korelasi IPK dan Skor UKDGI	0.086
Korelasi IPK dan masa studi	0.109

a good correlation- ($R^2 > 0.5$)

DISCUSSION AND SUMMARY

- Dentists who graduated from the Faculty of Dentistry at the University of Jember who have a high or low GPA do not show a positive correlation with the results of the theoretical exam scores obtained on the Indonesian dentist competency exam (UKDGI). This is probably due to the lack of application of the basic science of medicine or dentistry so that when they graduate the graduates have forgotten.

- The results of the practice exams (OSCE) also did not show a positive correlation with the results of the practice exam scores obtained on the Indonesian dentist competency exams (UKDGI). Both dentists who have a long study period and a low GPA have the same chance as dentists who have a short study period and a high GPA, this is probably due to the low pass mark, which is a score of 50.

- However, dentists who failed during the Indonesian dentist competency examination were dentists who graduated with a study period of more than 6 years and a GPA <3.00.

Conclusion

- Indonesian dentist competency test is a high-stake exam to screen out incompetent dentists. Therefore, in this test the quality of item writers, reviewers and judges needs to be improved as standard setters in determining the passing grade both on the cognitive test and on the skills test.

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