

## Review Invitation Reminder

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Wed 6/22/2022 12:16 AM

To: Lamhot Naibaho <lamhot.naibaho@uki.ac.id>

Dear Dr Lamhot Naibaho,

I recently invited you to review the manuscript "The Determinant Factors of Medical Students' Learning Behavior in the National Medical Competency Examination in Indonesia: A Qualitative Study", by Marindra Firmansyah, Yoyo Suhoyo and Gandes Retno Rahayu, submitted for consideration in Frontiers in Education, and I would like to inquire again if you are interested in reviewing this manuscript.

You should decline the invitation if you are not confident that the subject matter is within your current area of expertise, or if you have any conflicts of interest with the authors or the work presented (see policy at <https://www.frontiersin.org/about/review-system#EditorialPolicies>). Should you accept the assignment, note that I would expect your review report on the manuscript within 7 days.

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I hope that you will be interested in reviewing this manuscript.

Best regards,

Your Frontiers in Education team

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-----MANUSCRIPT DETAILS-----

Manuscript title: The Determinant Factors of Medical Students' Learning Behavior in the National Medical Competency Examination in Indonesia: A Qualitative Study

Manuscript ID: 952306

Authors: Marindra Firmansyah, Yoyo Suhoyo and Gandes Retno Rahayu

Journal: Frontiers in Education

Article type: Original Research

Submitted on: 24 May 2022

Edited by: HADI BAYRAM YILMAZ

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Abstract: Indonesia has applied a national competency exit-examination for medical graduates since 2014. This examination has impacts to students. There is limited literatures that describe the impact mechanism of national examination. This study aimed to identify the determinant factors of the learning behavior of medical students in the national medical competency examination during the COVID-19 pandemic in Indonesia. This qualitative study was conducted with semi-structured in-depth interviews face-to-face with thirteen medical students from the Faculty of Medicine Universitas Islam Malang and online interviews with thirteen medical students from the Faculty of Medicine Universitas Gadjah Mada, Indonesia. Theoretical sampling was done by adding three medical students from a faculty of medicine in east Indonesia. Transcribed interviews were coded openly. Themes were finalized through discussion to reach a consensus. The extracted concepts from our study were classified into ten categories that describe the determinant factors of learning behavior and two categories of learning behavior. These categories include task value belief, goal orientation, weakness, impact failure, benefits of passing the exam, self-efficacy, normative and spiritual beliefs, barriers to learn, environment factors and anxiety. The learning behavior itself consists of two categories; quality of learning and regulation of learning. This study suggested a model for the determinant factors of students' behavior change in response to the national medical competency examination. This result could be used by medical schools to facilitate these mechanism factors to be positive reinforcements to impart more positive learning to medical students in medical schools. More studies are needed to explore other factors that drive the positive learning process.

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- ✓ 3.
- ✓ 6. Final Validation
- ✓ 7. Final Decision
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★ **The Determinant Factors of Medical Students' Learning Behavior in the National Medical Competency Examination in Indonesia: A Qualitative Study**

Marindra Firmansyah\* , Yoyo Suhoyo and Gandes Retno Rahayu  
 Original Research, *Front. Educ. - Assessment, Testing and Applied Measurement*  
 Received on: 24 May 2022, Edited by: HACI BAYRAM YILMAZ ✉  
 Manuscript ID: 952306

Keywords: assessment driven learning, grounded theory, Learning impact, Mechanism of learning, high stakes assessment



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NO ACTION IS REQUIRED FROM YOU

This manuscript has been accepted for publication.

History

Editor  
Active

Me  
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A | R | A

Reviewer 1: Lamhot Naibaho  
 Independent review report submitted: 22 Jun 2022  
 Interactive review activated: 01 Aug 2022  
 Review finalized: 05 Aug 2022

Initial recommendation to the Editor: Minor revision is required

Note to the Editor (NOT visible to the authors):  
 We get to make sure that they do the revision.

EVALUATION

**Q 1** Please list your revision requests for the authors and provide your detailed comments, including highlighting limitations and strengths of the study and evaluating the validity of the methods, results, and data interpretation. If you have additional comments based on Q2 and Q3 you can add them as well.

Reviewer 1: Lamhot Naibaho | 22 Jun 2022 | 04:11 #1

- Abstract  
Although it is a qualitative study, the abstract should be completed with a conclusion. I do not see it written in the abstract.  
State clearly, were those three medical students from a faculty of medicine in east Indonesia interviewed face to face or online, as you did to the other two informants.
- Introduction.
  - You need to present the facts or reality and the expectation that creates the GAB of your research, and the GAB will lead you to the problem which is going to be answered.
  - The introduction seems to be a collection of citations. You need to elaborate on them in your own words.
  - I do not see any novelty, although you have written down some of the previous related studies in your introduction. It is not written explicitly the difference between the previous related studies and the study you had conducted to prove that your study has novelty (Revise it please!).
- Method
  - There is no specific explanation of the way how the 29 respondents were chosen (you need to explain how were they are chosen to be the respondents in your study)
  - Since it is a qualitative study, you need to write down a comprehensive data analysis technique starting from data coding, data codification, data display, and data verification.
  - It is said "The semi-structured in-depth interviews were conducted using guiding questions, as shown in Appendix 1" but I do not see any appendix at the end of the manuscript.
- Result
  - In part 3.5 Benefits of Passing the Exam you need to complete "Quote 10]" with an open



Live chat



Bahasa Indonesia, then you need to improve the quality of the translation.

c. You need to restate the finding at the end of the result part as a conclusion in the part of the result (or as an answer to the question of the study).

#### 5. Discussion

a. so far it is well described

#### 6. Conclusion

a. Seems that there is no correlation between the conclusion and purpose (as it is said in the introduction), and the finding of the study. A conclusion is a conclusion, it should be clear (Make sure when writing the conclusion, it must be concise, clear, and complete. So that when reading it no more questions arise).

#### 7. References

Some of the references need to be changed to more updated references, some of them are too old already.

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 **Corresponding Author:** Marindra Firmansyah | 04 Aug 2022 | 11:54

#2

Thanks you for your comments, i will try to answer the best i can.

1.The three medical students were conducted online by telephone or through Zoom meetings.

We have already included this statement in the text.

2. a.Thanks for your suggestion, we have already write the fact in the article like this. "assessment is not the only factor in encouraging students to learn. However, there are other determinant factors that function as a mechanism factor for learning behavior changing in students. And The previous study focuses on accommodating elements of culture and the learning environment in an assessment program, but is limited to the context of summative assessment, and not specific in high stakes assessment and carried out in countries outside Indonesia that have very different socio-cultural conditions, due to differences in ethnicity, religion, customs, and geographical location.

b.Thanks for your suggestion, we have already elaborate some statement with paraphrase them in text.

c.Thanks for your suggestion, we have paraphrase for the rigorous background like this in the text.

3.a.Thanks for your suggestion. Corrections have been done accordingly.

This study was conducted at the Faculty of Medicine Universitas Islam Malang (FK Unisma), Faculty of Medicine, Public Health and Nursing Universitas Gadjah Mada (FKKMK UGM), and the Faculty of Medicine in eastern Indonesia. Respondents were selected by taking maximum variation sampling at two medical education institutions with A accreditation level (public medical school FK-KMK UGM) (n=13), and B accreditation level (private medical school, Faculty of Medicine Universitas Islam Malang) (n=13). Both institutions were from the west region of Indonesia. The criteria of respondents were male and female students with low, medium, and high-grade performance averages (GPA). Meanwhile, to get a theoretical sampling, three respondents were added from another Indonesian region (the eastern Indonesia Medical Faculty) (n=3) to ensure the representativeness of the east region Indonesia with different socio-cultural conditions. So, the total number of respondents was 29.

b.We already put it on the methods, data analysis.

Data coding: The transcription was independently coded line by line by these three coders. The transcription was independently coded line by line by these three coders.

Data codification: Data codification using three different identifier showed in the Table 1 include classification of theme, categories, and subcategories.

Data display: Data display was done by grouping based on thematic content analysis that was shown as a fishbone model in figure 2. Data display also verified with independent coders and two experts in medical education (GRR and YS). Data display describe the coding result as subcategories and categories as determinant factors of learning behaviour. All of the identified subcategories, categories, and themes were presented in Table 1

Data verification: Data verification and credibility were achieved by conducting member checking and triangulation. Member cheking conducted by give participants with the transcripts to make sure that the result of indepth interview suitable as intended by participants. Trustworthines also conducted by GRR and YS, which helped clarify the results of codification made by the three coders. Differences in the codification were then debated by GRR and YS and resolved through discussion until a consensus was



remaining transcripts were checked and used to ensure data saturation. Memos and documents from the interviews and coding steps, which were kept by the first author, were also used to increase credibility. Triangulation of the data in this study was made by inviting the respondents from three groups of medical students, i.e., public medical school, private medical school, and from the east Indonesia medical school, with variations in GPA and culture. GRR and YS also provided expert checking to determine whether the coding and representative quotations completely described the category and subcategory that were represented.

c. We will provide Appendix 1, actually the guideline in supplementary

4.a. Corrections have been done accordingly

b. Interview the respondent in Bahasa Indonesia

c. Thank you, we already revised it and add one paragraph in the end of result.

5.a. Thank you for your suggestion.

6. Corrections have been done accordingly.

Conclusion:

This research found the determinant factors of learning that included internal factors at the individual level and external factors at the community level that drive students' learning before they take a high-stakes assessment. Student behavior in preparing for the national licensing examination is strongly influenced by internal factors at the individual level and external factors at the interpersonal and community levels. Internal factors include task value, goal orientation, weakness, benefits of passing the exam, self-efficacy, beliefs, and test anxiety. Meanwhile, the external factor is the environmental factor that consists of peer influence and institutional regulation. These factors determine the medical student learning behavior in the national medical competency examination during the COVID-19 pandemic in Indonesia, both in quality and regulation of learning. The spiritual factors were found as the determinant factors in this study that was not found in the previous study. Spiritual factors and environmental factors determine all of the learning behavior that consists of quality of learning and regulation of learning. Meanwhile, the impact of failure only determines the regulation of learning, while the barrier to learning only determines the quality of learning.

7. Corrections have been done accordingly

[Review supporting file - 357866](#)



**Corresponding Author:** Marindra Firmansyah | 04 Aug 2022 | 11:57

#3

This is the new article that have revised,

[Review supporting file - 357868](#)

Q 2

Check List



**Reviewer 1:** Lamhot Naibaho | 22 Jun 2022 | 04:11

#1

- a. Is the quality of the figures and tables satisfactory?  
- Yes
- b. Does the reference list cover the relevant literature adequately and in an unbiased manner?  
- Yes
- c. Are the statistical methods valid and correctly applied? (e.g. sample size, choice of test)  
- Not Applicable
- d. Is a statistician required to evaluate this study?  
- No
- e. Are the methods sufficiently documented to allow replication studies?  
- No

QUALITY ASSESSMENT

Q 3

Rigor



Q 4

Quality of the writing



Q 5

Overall quality of the content



Q 6

Interest to a general audience





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# The Determinant Factors of Medical Students' Learning Behavior in the National Medical Competency Examination in Indonesia: A Qualitative Study

Marindra Firmansyah<sup>1\*</sup>, Yoyo Suhoyo<sup>2</sup>, Gandes R. Rahayu<sup>2</sup>

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### *Conflict of interest statement*

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest

### *Author contribution statement*

Marindra Firmansyah : Conceived and designed the analysis; Collected the data; Contributed data or analysis tools; Performed the analysis; Wrote the paper.

Yoyo Suhoyo : Conceived and designed the analysis; Contributed data or analysis tools; Review and revise the paper.

Gandes Retno Rahayu: Conceived and designed the analysis; Contributed data or analysis tools; Review the data analysis; Review and revise the paper.

### *Keywords*

assessment driven learning, grounded theory, Learning impact, Mechanism of learning, high stakes assessment

### *Abstract*

Word count: 257

Indonesia has applied a national competency exit-examination for medical graduates since 2014. This examination has impacts to students. There is limited literatures that describe the impact mechanism of national examination. This study aimed to identify the determinant factors of the learning behavior of medical students in the national medical competency examination during the COVID-19 pandemic in Indonesia. This qualitative study was conducted with semi-structured in-depth interviews face-to-face with thirteen medical students from the Faculty of Medicine Universitas Islam Malang and online interviews with thirteen medical students from the Faculty of Medicine Universitas Gadjah Mada, Indonesia. Theoretical sampling was done by adding three medical students from a faculty of medicine in east Indonesia. Transcribed interviews were coded openly. Themes were finalized through discussion to reach a consensus. The extracted concepts from our study were classified into ten categories that describe the determinant factors of learning behavior and two categories of learning behavior. These categories include task value belief, goal orientation, weakness, impact failure, benefits of passing the exam, self-efficacy, normative and spiritual beliefs, barriers to learn, environment factors and anxiety. The learning behavior itself consists of two categories; quality of learning and regulation of learning. This study suggested a model for the determinant factors of students' behavior change in response to the national medical competency examination. This result could be used by medical schools to facilitate these mechanism factors to be positive reinforcements to impart more positive learning to medical students in medical schools. More studies are needed to explore other factors that drive the positive learning process.

### *Contribution to the field*

This research acknowledged several factors that included internal factors in individual level and external factors that drive students' learning before they take a high stakes assessment. Understanding these factors could be considered in the planning and designing of these determinant factors of learning to get a good quality of learning. The appropriate interventions are mainly done by focusing on removing perceived weakness and barriers in students' learning and strengthening the role of the community level consisting of institutional factors, community factors and public policy for better student learning. By doing this, medical schools can improve the students' learning behavior and their assessment outcomes.

### *Funding statement*

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

*Ethics statements*

*Studies involving animal subjects*

Generated Statement: No animal studies are presented in this manuscript.

*Studies involving human subjects*

Generated Statement: The studies involving human participants were reviewed and approved by Medical and Health Research Ethics Committee (MHREC) of the FKMK UGM - Dr. Sardjito General Hospital, Indonesia, with file number KE/FK/0779/EC/2020. The patients/participants provided their written informed consent to participate in this study.

*Inclusion of identifiable human data*

Generated Statement: No potentially identifiable human images or data is presented in this study.

In review

*Data availability statement*

Generated Statement: The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

In review

# The Determinant Factors of Medical Students' Learning Behavior in the National Medical Competency Examination in Indonesia: A Qualitative Study

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8 **Keywords:** assessment driven learning, grounded theory, learning impact, mechanism of  
9 learning, high stakes assessment.

## 10 Abstract

11 Indonesia has applied a national competency exit-examination for medical graduates since 2014. This  
12 examination has impacts to students. There is limited literatures that describe the impact mechanism  
13 of national examination. This study aimed to identify the determinant factors of the learning behavior  
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24 environment factors and anxiety. The learning behavior itself consists of two categories; quality of  
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27 could be used by medical schools to facilitate these mechanism factors to be positive reinforcements  
28 to impart more positive learning to medical students in medical schools. More studies are needed to  
29 explore other factors that drive the positive learning process.

## 30 1 Introduction

31 National medical competency examinations have been conducted in many countries in the world to  
32 ascertain that the competencies of graduating medical doctors can fulfill the minimal required  
33 standard. Indonesia had been conducting the national medical competency examinations known as  
34 The Indonesia Medical Doctor National Competency Examination (IMDNCE) since 2014 based on  
35 Indonesian Medical Act No. 20/2013, which consists of two components. The IMDNCE in Indonesia  
36 language is called as UKMPPD. There are multiple-choice questions using computer-based testing  
37 methods (MCQs-CBT) to assess candidates' knowledge, and Objective Structured Clinical  
38 Examinations (OSCE) to assess candidates' clinical skill performance. The IMDNCE is high stake  
39 assessment that has been widely utilized as an evaluation tool in medical education, apart from the  
40 main function of assuring patient safety (Melnick, 2009; Dillon *et al.*, 2013; Archer *et al.*, 2016).  
41 These functions of the assessment always need to be evaluated in the implementation process to  
42 prevent malpractice in the assessment (Crooks, Kane and Cohen, 1996; Shumway and Harden, 2003;  
43 Baartman *et al.*, 2006; J. Norcini *et al.*, 2011; Norcini *et al.*, 2018).

44 There are many aspects that must be considered in the implementation of assessment consists of  
45 validity, reliability, impact on the learner and educational program, and practicability as well as  
46 assessments that have a catalytic effect (Crooks, Kane and Cohen, 1996; Shumway and Harden, 2003;