

Article

An Analysis of Critical Thinking Skill of Senior High School Students

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Abstract. (a) *The purpose of this study was to examine the application and degree of critical thinking abilities among MA Futuhiyyah Kudu twelfth-grade students throughout the first semester of instruction.* (b) *Classroom observations revealed that not all pupils had sufficiently developed critical thinking, which is a crucial skill for senior high school students to prepare for future professional needs and higher education. This research employed a quantitative descriptive design. The population consisted of all eleven-grade students at MA Futuhiyyah Kudu, and the sample consisted of 22 students as respondents. In order to examine students' logic and depth of thought during the learning process, data were gathered using a critical thinking questionnaire that was sent via Google Forms and supplemented by essay questions. Students' critical thinking abilities were categorized into high,*

moderate, and low groups based on the analysis of the gathered data (c) According to the results, 14% of students had excellent critical thinking abilities, 59% had moderate critical thinking abilities, and 27% had low critical thinking abilities. The numeric results were corroborated by the essay replies, which showed that students' application of critical thinking during class activities and their classified levels were consistent. (d) In conclusion, the majority of MA Futuhiyyah Kudu eleven-grade students had modest critical thinking abilities, indicating the need for instructional strategies that further support students' growth of critical thinking throughout the teaching and learning process.

Keywords: *Critical Thinking; Senior High School; Quantitative Description; English Learning; Eleventh-grade students.*

Introduction

The significance of incorporating critical thinking into classroom instruction has been highlighted by numerous studies. Prior studies have demonstrated that teaching strategies like inquiry-based learning, problem-based learning, and discussion-oriented instruction can successfully foster students' critical thinking abilities. Students who are encouraged to challenge information, defend their beliefs, and reflect on their educational experiences typically display stronger analytical and reasoning skills. These results suggest that instructional strategies significantly influence the development of students' critical thinking skills.

A large portion of the critical thinking research that has already been done has concentrated on education settings. There are still not many studies done at the senior high school level, particularly in Islamic senior high schools (Madrasah Aliyah). Furthermore, while fewer studies examined the actual level and application of students' critical thinking abilities during regular classroom learning activities, many earlier studies used experimental designs to test particular instructional models. This highlights a deficiency in descriptive studies that look at how critical thinking appears in actual classroom settings.

By offering a descriptive analysis of eleventh-grade students' critical thinking abilities throughout the teaching and learning process, this study aims to close this gap. In order to provide a realistic picture of students' current thinking abilities in an authentic learning environment, this research is novel in that it focuses on describing both the implementation and categorization of students' critical thinking skills without testing a specific instructional intervention. Thus, during the first semester of the teaching and learning process, the goal of this study is to examine the application and levels of critical thinking skills of the students.

Materials and Methodology

The target population for this study was all eleventh-grade students enrolled in MA Futuhiyyah Kudu during the nominal year under investigation. A total of 22 participants were selected for this study as respondents. The research instruments consisted of a critical thinking questionnaire and essay questions. The critical thinking questionnaire was designed to measure the capabilities of the students to assess information, argumentation, and sound judgments. The instrument was based on Peter Honey's critical thinking scales. The essay questions, on the other hand, helped to supplement the data obtained using the critical thinking questionnaire. The essay questions gave the students the opportunity to illustrate their thought processes and the depth of their thought when dealing with learning issues. The research instruments were administered using Google Forms to facilitate effective data collection.

The process of gathering information was done during the first semester of the academic year. Students were required to do the questionnaire and essay questions on their own. The information was then gathered and put together for analysis. The data analysis process involved determining the total score for each

student obtained from the questionnaire and grading the level of critical thinking skills possessed by those students as either high, moderate, or low based on certain criteria for analysis to be objective. The data obtained from essays were analyzed in a descriptive manner to aid in justifying the results obtained, especially in showing how learners have used critical thinking in learning. This approach helped the research to achieve a complete snapshot of the critical thinking abilities of eleventh-grade students.

Results and Discussion

The results from the evaluation of the questionnaire revealed that the critical thinking abilities among students fell under three categories: high, moderate, and low. From the results obtained, 14% of the students had their results categorized as high levels of critical thinking skills. This group of students exhibited high levels of skills and competencies in problem analysis and evaluation of information, as well as the ability to present well-reasoned arguments. Their essays exhibited high levels of demonstrated understanding and rationalization of the subject.

Additionally, the largest number of participants, comprising 59% of all students, fell under the moderate critical thinking skills category. Students under this category can comprehend problems and respond appropriately. However, it should be noted that despite having appropriate skills in critical thinking, they often failed to provide adequate reasoning to support whatever answers they gave. Nonetheless, one would conclude that such participants had not acquired high-level critical thinking skills despite having elementary skills.

The remaining 27% of students were classified as having low critical thinking skills. These students experienced difficulty in analyzing questions,

organizing ideas, and providing logical explanations. Their essay responses were often brief, descriptive, and focused on memorization rather than reasoning. This indicates that some students relied heavily on recalling information instead of critically engaging with the learning material.

The results of the analysis of the essay responses confirmed those of the questionnaires. Students with high scores tended to provide clearer, more coherent, and analytical responses to the essay. Students having low scores, on the other hand, exhibited limited reasoning or elaboration. There was consistency between the results derived from the questionnaires and those derived from analyzing the essay responses. This enhanced validity.

In comparison to previous studies, which found identical distribution levels for critical thinking skills among secondary school students, the findings of this study support the conclusion that the development of critical thinking skills among senior high school students is still in the process of development. The dominance of the moderate category indicates that classroom instruction has begun to foster critical thinking but has not yet maximized students' higher-order thinking potential. Therefore, instructional strategies that encourage analysis, reflection, and active discussion are necessary to enhance students' critical thinking skills more effectively.

The next 27% of students were categorized under the category of having low critical thinking skills. The students in this category struggled to evaluate questions, structure thoughts, and formulate logical explanations. The answers for the essay questions that the students wrote were characterized by being short, descriptive, and relying on memorization. This shows that the students were relying on memorization to pass, rather than analyzing the information presented to them.

The qualitative study of the essay answers reinforced the results of the questionnaire study conducted. Students with higher scores in the questionnaire gave better answers in their essays, which were coherent and analytical, while those with lower scores just gave shallow answers with very little elaboration. It is obvious that having both positive and negative reinforcement helps to ensure a positive finding. In trying to relate the outcomes generated from this research with past research studies that yielded different outcomes concerning the level of skills possessed by secondary school students on the skill of critical thinking, the outcomes generated supported the claim that the skills of critical thinking among senior high school students are still in the process of being developed, thus still needing development.

Conclusion and Recommendation (Heiti SC12)

The findings of the questionnaire also prove consistent with the results from the students' essay responses, therefore allowing confirmation that the categorized levels of students indeed reflect their correct amount of applying critical thinking during classroom activities. The higher critical thinking levels demonstrated students who were capable of analyzing problems, observing information, and providing logical explanations, while students with lower levels chose memorization and superficial understanding. This fact points to the necessity for explicit development of instructional practices that encourage analysis, reasoning, and reflection in learning.

Based on the conclusions, learning strategies overtly enhance the students' critical thinking through problem-solving activities, open-ended questions, group discussions, and reflection tasks. Schools should back this up through teacher training and curriculum development to help them integrate critical thinking skills more systematically into classroom teaching. Future researchers are encouraged to conduct more studies using experimental or

mixed-method designs to investigate the effectiveness of certain teaching strategies in enhancing students' critical thinking skills and to involve larger samples for broader generalization.

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References

Journal article with DOI:

One Author:

Abrami, P. C., Bernard, R. M., Borokhovski, E., Waddington, D. I., Wade, C. A., & Persson, T. (2015). Strategies for teaching students to think critically: A meta-analysis. *Review of Educational Research*, 85(2), 275–314.
<https://doi.org/10.3102/0034654314551063>

Two Authors:

Cahyono, B. (2016). Korelasi Pemecahan Masalah dan Indikator Berfikir Kritis. Phenomenon: Jurnal Pendidikan MIPA, 5(1), 15–24.
<https://doi.org/10.21580/phen.2015.5.1.87>

Three to Sixteen Authors:

Carol, C. (2015). Learning Styles in Higher Education. A Case Study in History Training. *Procedia - Social and Behavioral Sciences*, 180 (November 2014), 256–261. <https://doi.org/10.1016/j.sbspro.2015.02.113>

Changwong, K., Sukkamart, A., & Sisan, B. (2018). Critical thinking skill development: Analysis of a new learning management model for Thai high schools. *Journal of International Studies*, 11(2), 37–48. <https://doi.org/10.14254/2071-8330.2018/11-2/3>

Ennis, R. H. (2015). Critical thinking: A streamlined conception. *Teaching Philosophy*, 38(1), 5–25. <https://doi.org/10.5840/teachphil20153814>

Ghofur, A., & Raharjo, N. R. B. (2018). Peningkatan Kemampuan Berfikir Kritis Mahasiswa Melalui Pendekatan 5E Dan Sets Berbantu Aplikasi Media Sosial. *JINoP (Jurnal Inovasi Pembelajaran)*, 4(2), 102. <https://doi.org/10.22219/jinop.v4i2.6678>

Huber, C. R., & Kuncel, N. R. (2016). Does College Teach Critical Thinking? A Meta-Analysis. *Review of Educational Research*, 86(2), 431–468. <https://doi.org/10.3102/0034654315605917>

Raju, M., Lavanya, S., & Mrunalini Shashanka, B. (2020). Critical thinking: An empirical study on undergraduate students to enhancing speaking skills through critical thinking. *Journal of Critical Reviews*, 7(5), 684–692. <https://doi.org/10.31838/jcr.07.05.142>

Rohayati, D. (2017). Students' Critical Thinking in Writing an English Exposition Text (A Case Study in a Private University in West Java). January 2017. <https://doi.org/10.2991/conaplin-16.2017.50>

Setianingsih, R., Marianti, A., & Ngabekti, S. (2019). Analysis of Critical Thinking Skills High School Students in the District of Semarang Material Environmental Change Curriculum 2013. *Journal of Biology Education*, 8(3), 315–321. <https://doi.org/10.15294/jbe.v8i3.27056>

Silalahi, R. M. (2017). Assessing University Students' Critical Thinking Skill by Using the TOEFL ITP Reading Test. *Lingua Cultura*, 11(2), 79. <https://doi.org/10.21512/lc.v11i2.1518>

Sulaiman, A., & Ismail, H. (2020). Teachers' strategies in promoting students' critical thinking skills. *Journal of Education and Learning*, 14(2), 123–131. <https://doi.org/10.11591/edulearn.v14i2.12345>

Wijayanti, M. D., Rahardjo, S. B., Saputro, S., & Mulyani, S. (2019). Item analysis of critical thinking skills instrument to measure effectiveness of scientific group inquiry learning (SGIL) model. *Jurnal Pendidikan IPA Indonesia*, 8(4), 538–546. <https://doi.org/10.15294/jpii.v8i4.20794>

Wiyaka, W., Prastikawati, E. F., & Kusumo Adi, A. P. (2020). Higher-Order Thinking Skills (HOTS)-based Formative Assessment: A Proposed Model for Language Learning Assessment. *Vision: Journal for Language and Foreign Language Learning*, 9(2), 115. <https://doi.org/10.21580/vjv9i25859>

Yasir, A. H., & Alnoori, .Prof. Bushra Saadoon Mohammed. (2020). Teacher Perceptions of Critical Thinking among Students and Its Influence on Higher

Education. *International Journal of Research in Science and Technology*, 10(4), 198–206. <https://doi.org/10.37648/ijrst.v10i04.002>

Zivkovic, S. (2016). A model of critical thinking as an important attribute for success in the 21st century. *Procedia – Social and Behavioral Sciences*, 232, 102–108. <https://doi.org/10.1016/j.sbspro.2016.10.034>

Book:

Apsari, N. P. A. N. (2016). Teacher's Way to Foster Critical Thinking in The Classroom. *Journal of English and Education*, 4(1), 51–72.

Facione, P. A. (2016). *Critical thinking: What it is and why it counts*. Insight Assessment.

Hadi, Abd., Asrori, & Rusman. (2021). Penelitian kualitatif studi fenomenologi, case study, grounded theory, etnografi, biografi. CV. Pena Persada Redaksi.

Haleh, Askarzadeh. (2018). The comparative effects of portfolio assessment and peer-assessment on EFL learners' critical thinking and speaking achievement. *Research in English Language Pedagogy RELP*, 6(2): 159-181.

Huda, S. (2017). Sikap Kritis Mahasiswa terhadap Isi Berita di Media Sosial. *Bagian II: Media Sosial San Multiliterasi Di Era Digital*, 2, 149–168.

Ipah, B. M. (2017). Analisis keterampilan berpikir kritis dan metakognitif mahasiswa program studi pendidikan biologi. *Jurnal Ilmu Biologi*. Universitas PGRI Semarang.

Kemdikbud. (2017). *Panduan pengembangan keterampilan berpikir tingkat tinggi*. Kementerian Pendidikan dan Kebudayaan Republik Indonesia.

Muhammad, N. (2018). The use of science film media “Gravity and Interstellar” in English learning to improve the understanding of the physics concepts. (ICTL) The 1st International Conference on Teaching and Learning , 244.

Nold, H. (2017). Using Critical Thinking Teaching Methods to Increase Student Success: An Action Research Project. *International Journal of Teaching and Learning in Higher Education*, 29(1), 17–32.

Sani, R. A. (2019). *Pembelajaran berbasis HOTS (Higher Order Thinking Skills)*. Bumi Aksara.

Sapolsky, R. M. (2017). *Behave: The biology of humans at our best and worst*. Penguin Books.

Suryani, A., & Nugroho, A. (2021). Critical thinking skills of senior high school students in English learning. *Journal of English Education*, 6(1), 45–56.

Paul, R., & Elder, L. (2014). *Critical thinking: Tools for taking charge of your learning and your life* (3rd ed.). Pearson Education.

Zakia, L., & Lestari, I., (2019). *Berpikir kritis dalam konteks pembelajaran*. Erzatama Karyatama Abadi.