

Developing Students' Critical Thinking Skills Through the Implementation of the Cambridge Curriculum

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Abstract: This study aims to describe the implementation of the Cambridge international curriculum as a basis for developing students' critical thinking skills at Chalidana Islamic School, Gresik. The focus of the research is directed at the strategy of planning, implementation, and evaluation of learning that integrates the Cambridge curriculum with the national and Islamic curriculum. This research uses a qualitative approach with a case study method, through observation, interview, and documentation techniques, and data validation is done by triangulation and member check. The results show that curriculum implementation is systematic and contextual, emphasizing active learning and problem-based learning, with teachers developing structured lesson plans and attending regular training. Learning encourages student participation in discussions, presentations and reflections, while evaluation is done through formative, summative and Checkpoint Test assessments. There was significant improvement in students' critical thinking skills, although constraints were found in the use of English and teacher preparedness. Successful implementation was supported by school leadership, adequate facilities and a collaborative learning culture. The integration of Islamic values in the international curriculum helped strengthen students' character spiritually and intellectually. This study recommends improving teacher competence and English literacy programs as strategies to improve the implementation of the Cambridge curriculum.

Keywords: *Cambridge curriculum; critical thinking; HOTS; Islamic education*

INTRODUCTION

In the 21st century, education faces great challenges in shaping human resources who are not only academically proficient, but also have critical, creative, collaborative, and communicative thinking skills. This demand is in line with the urgency of strengthening 21st century competencies promoted by the Ministry of Education, Culture, Research and Technology (Kemendikbudristek), as well as international institutions such as the Partnership for 21st Century Skills which emphasizes the importance of mastering critical thinking skills (Manik & Jannah, 2024). Critical thinking skills are a key indicator of educational success because they enable learners to develop analysis, evaluation, and rational and reflective decision making in everyday life (Rahmawati et al., 2024).

In order to achieve these goals, various efforts have been made, one of which is through

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the implementation of an international curriculum. In Indonesia, the Cambridge Curriculum is one of the alternatives chosen by many educational institutions, including elementary schools, in an effort to improve the quality of education and student readiness to face global competition. This curriculum is designed to emphasize a *student centered* learning approach, with an emphasis on developing *higher order thinking skills* through key subjects such as English, Mathematics, and Science (Christiana et al., 2022). With this approach, students are encouraged to actively ask questions, discuss, and evaluate ideas logically and reflectively.

The implementation of the Cambridge Curriculum in primary schools in Indonesia not only improves students' academic abilities in core subjects, but also forms a critical and creative mindset that is highly relevant to the demands of the 21st century (Salsabila et al., 2025a). In the context of national education, this approach is considered to be able to answer the challenge of low literacy and numeracy skills of students, as reflected in various national and international assessment results. Therefore, the integration of international curricula such as Cambridge can be a strategic strategy in encouraging the transformation of education towards global quality, without ignoring the local context (Indrawati, 2024). However, the success of the integration of the Cambridge Curriculum in the context of basic education in Indonesia is highly dependent on the ability of educational institutions to adapt the curriculum contextually. This adaptation includes aligning curriculum content with local cultural values, teacher readiness in mastering global competency-based learning approaches, and the availability of adequate learning resources. Without a proper adaptation process, the risk of a gap between curriculum outcomes and the reality of learning in the field is very high. Therefore, the global-local approach is an important principle in the implementation of the international curriculum in Indonesia, so that it remains relevant to the needs of students and their social environment. In addition, strengthening teachers' capacity through continuous training and collaboration with international institutions are also key factors in ensuring the sustainability and effectiveness of the Cambridge curriculum in primary schools (Diocolano, 2019).

The phenomenon of the increasing use of the Cambridge Curriculum in various elementary schools shows a significant trend in the adoption of international curricula. Research by (Fitriani et al., 2021) at SDI Kreatif Mutiara Anak Sholeh, and by (Nafisah, 2018) at SD Al Abidin Surakarta shows that the implementation of the Cambridge curriculum supports active learning, utilization of English as an introduction, and improvement of students' critical thinking skills. These results strengthen the argument that the Cambridge Curriculum is not only globally relevant, but also adaptive to the local context of basic education in Indonesia.

In the local context, Chalidana Islamic School Puri Safira Regency Menganti Gresik is one of the primary schools that has implemented three curricula at once: the national curriculum, the Islamic curriculum, and the Cambridge international curriculum. The implementation of the Cambridge Curriculum in this school is aimed at developing students' potential in critical, reflective and creative thinking. Based on an interview with the principal, Chalidana Islamic School has implemented HOTS (*Higher Order Thinking Skills*) based learning strategies and avoided multiple choice questions as an effort to shape students' analytical *skills*. However, there are still challenges in its implementation, especially related to the limited use of English in the home environment, which has an impact on the smooth academic communication of students at school.

In-depth theoretical studies show that critical thinking involves not only the ability to analyze and evaluate, but also the ability to manage and reflect on the thinking process (Kurniawaty et al., 2022). In other words, critical thinking is the result of planned, systematic, and curriculum-based pedagogical practices that support (Agustin, 2019). In this case, the Cambridge Curriculum is the right place because it has an international orientation, flexibility in implementation, and a *problem-based learning* approach (Fatimah & Fatayan, 2022). Therefore, the Cambridge Curriculum not only facilitates mastery of academic material, but also explicitly encourages learners to develop critical thinking skills through challenging and contextualized learning activities (Hendrayana, 2024).

Educators view the Cambridge Curriculum as a strategic instrument in shaping students who think critically, independently, and have a global outlook. However, its implementation still requires contextual adjustments to align with local characteristics and needs (Aulia et al., 2023). Through a problem-based learning approach, students are invited to identify issues, explore alternative solutions, and consider the logical consequences of each choice. This process strengthens metacognition, which is students' awareness of how they think and learn, which is an important foundation in independent decision making (Hasanah & Agustin, 2024).

The flexibility of the curriculum allows teachers to adapt teaching methods to students' local characteristics and needs, so that the achievement of global competencies remains relevant to the national context. It is this integration of a strong curriculum structure and innovative learning strategies that makes the Cambridge Curriculum an effective tool in shaping a generation of critical and reflective learners (Najah & Setiati, 2020).

Several previous studies confirm the effectiveness of the Cambridge Curriculum in developing students' critical thinking skills. (Laili, 2019) found that the adaptive learning system with the Cambridge curriculum at MI Muslimat NU Pucang Sidoarjo was able to create a learning environment that encouraged students to actively think. Similarly, research by (Salsabila et al., 2025b) The impact of implementing the Cambridge curriculum and the independent curriculum for students greatly improves their learning skills, namely improving critical, creative and innovative thinking skills. Especially in the implementation of the Cambridge curriculum, it has a great impact on students' understanding and communication in using English.

Based on the description of empirical phenomena, educational theories, and previous studies, this research is important to find out in depth how the Cambridge Curriculum is implemented at Chalidana Islamic School and the extent to which this curriculum is the basis for developing students' critical thinking skills. This will contribute not only to the development of internal school policies, but also as a reference for other educational institutions interested in adopting a similar international curriculum.

Thus, the purpose of this research is to describe the implementation of the Cambridge international curriculum as a basis for developing students' critical thinking at Chalidana Islamic School Puri Safira Regency Menganti Gresik, as well as identifying supporting and inhibiting factors in its implementation.

RESEARCH METHODOLOGY

This research uses a qualitative approach with a case study research type. The qualitative approach was chosen because it aims to understand in depth how the implementation of the Cambridge international curriculum contributes to the development of students' critical

thinking, through direct observation and interaction with subjects in the field. The design of this research can be seen in the following figure.

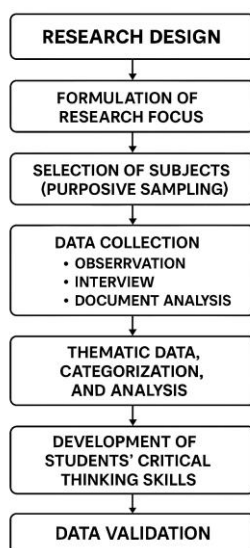


Figure 1: Research Methodology Design

This research methodology uses a case study design with stages including: problem focus formulation, purposive subject selection, data collection through observation, interviews, and document analysis, and thematic data analysis. The data obtained were then reduced, categorized, and analyzed to find patterns of developing students' critical thinking skills in the context of implementing the Cambridge Curriculum. Data validity was maintained through triangulation of sources and techniques, and member checks with informants. The whole process was organized systematically to obtain an in-depth and contextualized picture of the influence of the curriculum on the development of critical thinking.

The research object in this study is the implementation of the Cambridge international curriculum used at Chalidana Islamic School. While the research subjects include the principal, class teachers, and students in grades IV to VI who are directly involved in the Cambridge learning process. The research location is Chalidana Islamic School which is located at Puri Safira Regency, Menganti, Gresik. The research was conducted during the odd semester of the 2024/2025 academic year.

Data collection techniques included participatory observation of classroom learning activities, in-depth interviews with principals and teachers, and documentation in the form of syllabi, lesson plans, and student work. The research instruments used were observation guidelines, interview guidelines, and documentation sheets, which were prepared based on critical thinking indicators and the Cambridge curriculum implementation framework.

The data analysis technique used the interactive model of Miles and Huberman, which consists of three main stages: data reduction, data presentation, and conclusion drawing or verification. Data validity was strengthened through triangulation of sources and techniques. With this approach, the researcher seeks to describe in depth the reality of the implementation of the Cambridge curriculum and identify the supporting and inhibiting factors in the development of students' critical thinking at the school.

RESULTS AND DISCUSSION

The implementation of the Cambridge international curriculum at Chalidana Islamic School is structured through integration with the national curriculum and Islamic curriculum. The school sets the main Cambridge subjects, namely English, Mathematics, and Science as the main focus in the process of developing students' critical thinking. This curriculum was chosen because it provides flexibility to teachers and students in exploring material through a problem solving approach and an emphasis on higher-order thinking skills (HOTS). In general, the implementation of this curriculum has run according to standards, but still adapts to the local Islamic context. Some of the stages that have been passed in this research are explained through the following figure.

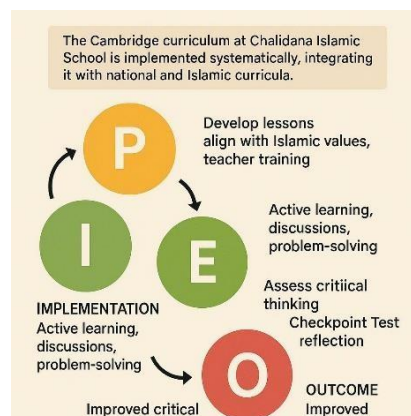


Figure. 2 Analysis of Research Implementation Results

In the planning stage, teachers make learning tools based on the Cambridge curriculum that are adapted to the conditions of students. Lesson plans are arranged systematically, including learning objectives, material selection, methods, and assessments that support the development of critical thinking. Teachers use the Cambridge syllabus and align it with Islamic values and the contextual needs of the school. Teachers are also involved in training and workshops on the Cambridge curriculum to improve their competence. Careful planning is an important foundation to ensure the success of learning that fosters critical thinking skills.

In the implementation stage, learning is carried out using an active approach and student-centered learning. Students are encouraged to be active in discussion, presentation and problem solving activities. Teachers use open-ended questions and thought-provoking scenarios that provoke student analysis and reflection. Project-based and exploratory learning methods are also applied, especially in Science and Mathematics subjects. This has proven to be effective in shaping a participatory learning environment and stimulating students' deep thinking.

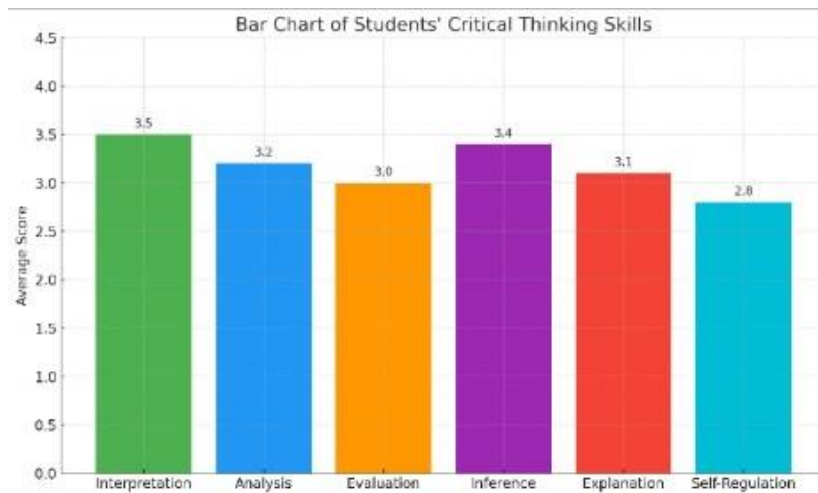
The evaluation focuses not only on the output, but also on the learning process (outcome). Assessment is done through instruments such as observation, analytical quizzes, project assessments, and Cambridge's Checkpoint Test. Formative and summative assessments are used to measure students' critical thinking skills, such as the ability to classify, compare, evaluate arguments, and make conclusions. Teachers also provide space for students to reflect on their learning. This process strengthens students' critical thinking and metacognitive skills. From observations and interviews with teachers and principals, it was found that students showed improvement in critical thinking skills after participating in Cambridge-based learning.

Teachers stated that students became more active in asking questions, dared to express their opinions, and were able to give logical reasons for their arguments. One of the indicators of this success can be seen from the improvement in the quality of students' discussions and presentations in class. On the other hand, the challenge faced is the gap in English language skills among students, which is the main language of instruction. Therefore, additional training and literacy activities in English are needed.

The main supporting factors in the implementation of the Cambridge curriculum in this school are the high commitment of school management and adequate infrastructure support. The principal actively monitors and reinforces teachers in implementing the Cambridge curriculum-based approach. Learning facilities such as Cambridge books, laboratories and digital access also support the teaching and learning process. In addition, an active and collaborative learning culture characterizes the learning environment at Chalidana Islamic School. These factors contribute to creating an academic atmosphere that encourages the development of critical thinking.

However, the implementation of the Cambridge curriculum also faced various challenges, especially in the aspect of using English. Some students experienced difficulties in understanding the material due to the lack of English language habituation in the home environment. Parents have not fully supported the use of English as daily communication, so students' exposure to this foreign language is still limited. In addition, not all teachers have optimal pedagogical and linguistic readiness to implement the curriculum fully. Therefore, it is necessary to increase teachers' capacity regularly through intensive training and mentoring. One of the hallmarks of Chalidana's implementation of the Cambridge curriculum is its success in integrating Islamic values into international learning. The school maintains the teaching of morals, Qur'an, and fiqh as part of strengthening students' character. Teachers also relate Islamic values in class discussions, such as honesty, responsibility, and curiosity as part of the character of a scientist. This integration forms students who not only think critically intellectually, but also spiritually and socially wise. This educational model creates harmony between global knowledge and local values.

This study aims to develop a measurement instrument for students' critical thinking skills in the context of the implementation of the Cambridge international curriculum at Chalidana Islamic School. Critical thinking skills are a core competency of the 21st century that is highly emphasized in the Cambridge curriculum, encompassing students' ability to think analytically, reflectively, and logically. Based on the measurement results using the developed rubric instrument, average data on students' abilities in six main aspects of critical thinking were obtained, which were visualized in a bar chart.



The bar chart above illustrates the average performance of students in six core dimensions of critical thinking skills: *Interpretation*, *Analysis*, *Evaluation*, *Inference*, *Explanation*, and *Self-Regulation*. These aspects are derived from widely recognized frameworks of critical thinking. Each bar represents the extent to which students have demonstrated competence in each respective area, based on observation and assessment within the context of a Cambridge International curriculum. The data reveals that students show relatively strong abilities in Interpretation (3.5) and Inference (3.4), indicating that they are able to understand and draw logical conclusions from information effectively. Meanwhile, Evaluation (3.0) and Explanation (3.1) remain at an adequate level, reflecting room for improvement in reasoning quality and articulating thought processes. Self-Regulation scores the lowest (2.8), suggesting that students require further support in reflecting on their own thinking and making corrections when necessary.

CONCLUSIONS

The implementation of the Cambridge curriculum as a basis for developing critical thinking at Chalidana Islamic School showed positive results. Students showed significant progress in higher order thinking skills, especially in problem solving and argumentative analysis. Despite barriers in English language usage and teacher preparedness, supporting factors such as school leadership, learning culture and facilities were key to success. The findings imply that international curricula can be effectively adapted to local contexts with the right strategies. This integrative model can be used as a reference by other schools that want to develop high-quality education with a strong Islamic identity.

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