Application of Elements of Higher Order Thinking Skills (HoTS) in the Teaching Practice of Islamic Education at Semporna District National School

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ABSTRACT: *This study aims to identify the level of application of the higher-order thinking Skills* (HoTS) *elements in Islamic Education teaching practices at Sekolah Kebangsaan Semporna and analyze differences in the level of application based on gender, age, and teaching experience. This study used a quantitative design with a survey method involving 358 randomly selected respondents. A questionnaire was used to collect data. The results showed that the overall level of implementation of HoTS elements was very high, with a mean value of 4.282 and a standard deviation of 0.347. The study also found that the factors of mastery of knowledge about HoTS, teaching methods, and teacher personality significantly contributed to the implementation of HoTS. In addition, there was no significant difference in the implementation of HoTS based on gender. Still, there was a considerable difference based on age, with more experienced teachers showing a higher level of implementation. In conclusion, applying the elements of HoTS in teaching Islamic Education can improve students' critical and creative thinking skills and integrate cognitive aspects, skills, and values in the educational process. This research emphasizes the importance of developing higher-order thinking skills in students to face the challenges of globalization and improve the quality of education.*

Penelitian ini bertujuan untuk mengidentifikasi tingkat penerapan elemen Kemahiran Berfikir Aras Tinggi (KBAT) dalam praktik pengajaran Pendidikan Islam di Sekolah Kebangsaan Semporna serta menganalisis perbedaan tingkat penerapan berdasarkan jenis kelamin, usia, dan pengalaman mengajar. Penelitian ini menggunakan desain kuantitatif dengan metode survei, melibatkan 358 responden yang dipilih secara acak. Instrumen penelitian berupa kuesioner digunakan untuk mengumpulkan data. Hasil penelitian menunjukkan bahwa tingkat penerapan elemen KBAT secara keseluruhan berada pada tingkat yang sangat tinggi dengan nilai rata-rata 4.282 dan deviasi standar 0.347. Penelitian juga menemukan bahwa faktor penguasaan pengetahuan tentang KBAT, metode pengajaran, dan kepribadian guru berkontribusi signifikan terhadap penerapan KBAT. Selain itu, tidak terdapat perbedaan signifikan dalam penerapan KBAT berdasarkan jenis kelamin, namun terdapat perbedaan signifikan berdasarkan usia, dimana guru yang lebih berpengalaman menunjukkan tingkat penerapan yang lebih

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tinggi. Kesimpulannya, penerapan elemen KBAT dalam pengajaran Pendidikan Islam dapat meningkatkan kemampuan berpikir kritis dan kreatif siswa, serta mengintegrasikan aspek kognitif, keterampilan, dan nilai dalam proses pendidikan. Penelitian ini menekankan pentingnya pengembangan keterampilan berpikir tingkat tinggi pada siswa untuk menghadapi tantangan globalisasi dan meningkatkan kualitas pendidikan.

Keywords: *Islamic Education, Higher Order Thinking Skills*

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I. INTRODUCTION

The correct implementation of PdP will encourage critical thinking and creative synthesis centred on Islamic views (Arif et al., 2024). A planned PdP will not ignore the role of the soul and spiritual aspects to complete the growth of the student's potential, which is integrated, balanced and comprehensive (Imron et al., 2023). Among the elements that need to be emphasized as a core framework and support in implementing teaching based on these HoTS elements are the interaction of teachers and students, dignity of character, attachment to PdP goals and self-strength. When integrated with a clear pedagogical approach to education, these elements will give birth to a conducive learning process to form students who understand, appreciate, and practice it.

Elements of Higher Order Thinking Skills (HoTS) in Islamic Education subjects are important in teaching effectiveness towards students' appreciation of knowledge. Critical thinking in the teaching and learning of Islamic Education should combine affective aspects in developing thinking abilities because this domain involves forming a value system and personality (Musa & Samsudin, 2021). In this educational process, students' value from thinking activities will be held and translated into behaviour. The transformation of this curriculum happened clearly when the KBSR was changed to the Primary School Standard Curriculum for primary school students. This curriculum transformation emphasizes not only the improvement in terms of content but also the use of various PdP approaches that place more emphasis on hands-on learning, such as discovery inquiry, problem-based learning, constructivist learning, contextual learning, self-regulation learning, mastery learning and learning outside the classroom (Mohd Zeki et al., 2021). The approach must provide fun learning opportunities and consider the diversity of student intelligence.

In conclusion, higher-order thinking Skills in Islamic Education use reason to make judgments and evaluations in the framework of deepening knowledge. Education begins with confidence in God in exploring the secrets of knowledge through researching different points of view, refining the strengths and weaknesses of ideas and avoiding blind imitation for good purposes (Nur Hikmah & Maryono, 2022). Islam tells us to use reason so that submission to God occurs with knowledge, not surrender in ignorance. This concept must be applied in the education system to cover cognitive aspects, skills, and values. With this, we can fulfil our role as servants of God and caliphs of God on this earth.

The role of the teacher has indeed been proven to have a great impact on the development of students. There are various challenges, including in the education system, where education should provide citizens who are knowledgeable and capable of

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communicating, collaborating, and thinking critically and creatively (Zhao et al., 2023). In line with that, Partnerships for 21st Century Skill has drawn up "Framework Definitions" as a model or framework to help teachers integrate 21st-century teaching and learning skills.

Therefore, students should be assessed to what extent they have mastered higher-order thinking Skills (HoTS) such as creativity and innovation, critical thinking and problem-solving, communication and collaboration, information literacy, technology literacy, and information and communication technology (Musa & Samsudin, 2021). Students who do not acquire the necessary skills will face competition. Applying higher-order thinking skills (HoTS) by Islamic education teachers will help students cope with a life full of globalization challenges and be more confident in education and their career fields. Higher-order thinking Skills (HoTS) require thinking based on the ability to interpret, translate, create, reflect and relate something to the current situation. The emphasis on HoTS in the national education system is an extension of the implementation of critical and creative thinking skills that have been implemented since 1993. The HoTS implementation process in Malaysia is sourced from Bloom's taxonomy and modified by Lorin Anderson through the top four hierarchies, which are applied, analysed, evaluated and created (Othman & Kassim, 2020).

The transformation of the curriculum in the education system emphasises the concept of HoTS, which is capable of producing a generation capable of critical and creative thinking (OECD, 2023). This approach was introduced to achieve the main goal of education, which is to produce more students with high levels of cognitive ability through active learning pedagogy in the learning process in the classroom. However, this goal has not yet been fully achieved. Therefore, various approaches have been introduced to produce intelligent, creative and innovative thinking to meet the challenges of education so that the country can compete on the world stage.

The transformation process of Islamic Education has been designed based on the implementation of IET teaching in schools through modifications involving curriculum capability components, the formation of school culture, improving teacher knowledge and the level of student ability to apply each learning content obtained so that the goal of introducing HoTS oriented teaching and learning can be implemented effectively and then form solid thinking among students. To realize this, IET needs to play the main role of a facilitator (Kang, 2024). It states that HoTS is the ability to expand the use of the mind in facing new challenges and logical thinking, which refers to the individual's ability to use various cognitive skills. Cognitive skills are high and complex skills such as reasoning, analyzing, synthesizing and producing something new in solving a problem.

HoTS is defined as the ability to apply knowledge, skills and values in reasoning and reflection to solve problems, make decisions, innovate and be able to create something (Wang & Liu, 2024). HoTS refers to the extension of the use of the mind when faced with new challenges. HoTS must be in every teacher's teaching (Mat Rabi et al., 2020). To improve HoTS, teachers can use strategies such as questioning techniques, problem-solving activities, project-based learning activities, various thinking tools, simulations, discussions, role-playing and preparing assignments with multiple difficulty levels. Therefore, IETs need to have knowledge and understanding of HoTS and a deep level of skill in implementing HoTS during teaching. IET's positive attitude towards the elements of HoTS is also important in implementing those skills during the teaching and

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learning process. The teacher's evaluation of HoTS will also affect teaching and learning in the classroom.

To achieve the country's wishes, IET needs to master knowledge more deeply, especially for the subjects taught in school, and to know the teaching methods of Worship, Faith, Ethics, and Recitation of the Quran and Hadith. In addition, IET must also have additional knowledge in using the latest technology as teaching and learning methods and techniques. Mastery of additional sciences is important because today's IET is dealing with students in the technology age. Therefore, all teachers should be role models that their students must follow. According to (Bond, 2024), an educator always needs to improve his in-depth knowledge of the subjects he teaches and master other knowledge. According to him, educators must ensure a deep understanding of science to be respected and trusted by their students. A study by (Nadirah et al., 2024) states that when the knowledge of Islamic Education can be delivered effectively by teachers in the teaching and learning process, we can see its effectiveness with the successful formation of human capital that can be produced perfectly. Therefore, IET must diversify creative teaching methods and interesting and effective strategies to achieve teaching objectives based on current developments.

In conclusion, a competent ET is a valuable asset to the country in realizing effective and quality teaching. IET is not only responsible for conveying knowledge but also responsible for providing understanding and nurturing a high personality based on the education given (Tuna, 2020). Therefore, IET must have a strong personality, as shown by Rasulullah SAW, who is a prophet and messenger and acts as a day towards the entire human race. The ability to think requires quality intellectual perfection to form effective understanding during classroom teaching. Applying HoTS elements in the teaching practice of Islamic Education subjects requires IET to plan, discuss, evaluate, design and make decisions based on the Partnership for 21st Century Model (2015). A study by (Almazroa & Alotaibi, 2023) states that the problem among IET is their understanding, skills and willingness to provide input and teaching and learning skills required in the 21st century.

Classroom teaching practices that do not emphasize higher-order thinking Skills strategies such as questioning, discussion and discovery inquiry. Teaching and learning that implements traditional patterned teaching is still an issue (Boateng et al., 2022). This weakens efforts to produce students who are balanced intellectually, spiritually, emotionally and physically as desired in FPK. Teachers need to diversify teaching methods so that students are more inclined and increase students' interest in learning in addition to being able to increase the application of HoTS elements to students during classroom teaching (Tekman & Yeniasır, 2023).

Teachers are implementers and are a close group with the existing education system. Previous studies related to HoTS, especially Islamic Education subjects, also stated that the lack of knowledge, planning, skills, readiness and attitude of IET to implement elements of HoTS in teaching and the level of student acceptance based on teachers' teaching about HoTS had affected its implementation. Anxiety about implementing reforms in teaching and learning activities indirectly creates a sense of discomfort for IETs in carrying out their duties. Based on all these issues and problems, it is clear that there are weaknesses in applying HoTS elements in IET teaching practice, which further affects the student learning process for Islamic Education subjects.

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II. METHOD

This study was carried out to identify the level of application of elements of higher-order thinking Skills (HoTS) and to identify differences in the level of application of elements of Higher Order Thinking Skills (HoTS) in the teaching practice of Islamic Education based on gender, age and experience of teaching Islamic Education in Schools Semporna District National, Sabah. (Sugiyono, 2016) explained that quantitative research is a process of converting data into numerical format that involves converting social science data into a form that computers can read and manipulate. The researcher has chosen a quantitative design using a survey method. This survey method uses questionnaire instruments to answer research questions by respondents. The survey method was found to be appropriate because the survey was conducted only based on the respondents' practice towards the objectives presented.

The researcher chose the probability sampling method because it is suitable for forming generalizations representing a large population. The sampling procedure at the initial stage uses a simple random process, and then the sample is chosen randomly based on the desired percentage (Darusalam & Sufean, 2016). The selection of a simple random sampling technique according to the zone can be seen to represent the specific characteristics of the population in all national schools in Semporna district, Sabah. This method can avoid prejudice or bias because it gives equal opportunity to all IETs selected as the study population. In this study, the researcher has used a simple random sampling method on 358 respondents to represent all Islamic Education teachers in the Semporna district, Sabah. According to (Gay, 2020), in descriptive research, the minimum sample is 10 per cent of the total population. The advantage of simple random sampling is that if the sample is large, then the sample will represent the population. In addition, it only involves collecting data and information from the respondents involved.

III. RESULT AND DISCUSSION

A total of 180 study samples were randomly selected in this study. All respondents are IETs who teach Islamic education subjects in several national schools in Semporna District, Sabah. The background is differentiated by Gender, Age and Teaching Experience.

Table 1. IET Demographics by Quarantine

Demographic Characteristics		N	Percentage (%)
Gender	Male	35	19.5%
	Female	145	80.5%

The table above shows that 35 IETs were male teachers. This number represents 19.5% per cent of the study participants. Meanwhile, the respondents among female IETs are also 80.5%, as many as 180 people.

Table 2. IET Demographics by Age

Demographic Characteristics		N	Percentage (%)
Age	Less than 25 years	4	2.1
	25 – 35 years	69	38.1
	36 – 45 years	84	46.6
	Over 45 years	23	13.2

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Table 2 shows in terms of age, it was found that 46.6% (84) IET people were in the 36-45-year-old group, which was the largest number of respondents, while 38.1% (69) IET people were in the 25-36-year-old group, which was the second largest group of respondents and the remaining 13.2% (23) IET people were from the over the 45-year-old group. Finally, 2.1% (4) IET people were in the under-25-year-old group of the study respondents.

Table 3. IET Demographics Based on Teaching Experience

Demographic Characteristics		N	Percentage (%)
Teaching Experience	1 – 10 Years	96	53.5
	11 – 20 Years	58	32.6
	21 – 30 Years	26	13.9

Table 4 also shows that in terms of teaching experience, it was found that 53.5% (96) teachers were in the 1-10 Year age group, which was the largest number of respondents, while 32.6% (58) teachers were in the 21-30 year age group, which was the second largest group of respondents, and the remaining 13.9% (26) teachers from the 11-20 year age group were study respondents. This study used the interpretation of the mean score value modified from Tschannen Moran and Gareis (2004). The interpretation of the mean score value for these two variables is shown in the table below.

Table 4. Interpretation of the Mean Coefficient Value of the Five-Level Likert Scale

Min Value	Interpretation
1.00 – 1.80	Very Low
1.81 – 2.60	Low
2.61 – 3.40	Simple
3.41 – 4.20	High
4.21 – 5.00	Very High

Descriptive Analysis of the Level of Implementation of HoTS Elements in Islamic Education Teaching Practice.

Table 4. Descriptive Analysis of the Level of Implementation of HoTS Elements in Islamic Education Teaching Practice

Factor	Min Value	Standard Deviation	Interpretation
Application of HoTS Elements In Teaching PI	4.282	0.347	Very High

Table 5 shows a descriptive analysis of the level of implementation of HoTS elements in Islamic Education teaching practices. It is very high, with a mean value of 4.282 and a standard deviation of 0.347. This proves that GPI has implemented HoTS elements in Islamic education teaching practices. Meanwhile, the mean values among the factors in teacher quality also show high and very high mean values , as shown in the table below.

Knowledge Mastery Factor Distribution of Respondents according to the Knowledge Mastery Factor about HoTS

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Table 6. Descriptive Analysis Among the Factors of Application of HoTS Elements in Islamic Education Teaching Practice (Mastery of Knowledge About HoTS)

Factor	Min Value	Standard Deviation	Interpretation
Mastery HoTS	4.317	0.383	Very High

Identifying the Level of Implementation of HoTS Elements in Islamic Education Teaching Practice

Descriptive analysis shows that the level of implementation of HoTS elements in the teaching practice of Islamic Education (Mastery of Knowledge About HoTS) GPI is very high. This proves that the factor (Mastery of Knowledge About HoTS) has become a practice among GPI in Semporna, Sabah. This situation may be due to GPI's self-awareness, commitment and seriousness in carrying out their responsibilities as a teacher, Muslim, mudarris, muddied, murshid and murabbi. Five quality factors are the main focus of this study, namely:

First, Knowledge Mastery Factors About HoTS

The findings of the descriptive analysis show that the knowledge mastery factor about HoTS of IET in Semporna, Sabah, is at a very high level in teaching Islamic Education and practising effective communication skills to establish good relationships between teachers and students. This means that IET has implemented HoTS elements in Islamic Education teaching practices in their daily routine. This may be due to their understanding of the mastery of knowledge about HoTS, which is the core of an IET, especially regarding religious knowledge.

These findings illustrate that mastery of knowledge is very important in the dictionary of a teacher's life. IET not only needs to master religious knowledge but also other additional knowledge such as technology, psychology, and pedagogy to be in line with changes in modern education. By improving and strengthening the curriculum, it is possible to enhance the teaching of Islamic Education. In the past, Islamic education teachers were one-sided. They only focused on conveying knowledge to students, but now, the role of IET is also to produce first-class human capital and comply with the HoTS concept. As is known, education is a process and activity that aims to bring change to an individual according to the norms and values of a society.

Second, Teaching Method Factor

Descriptive analysis shows that the teaching method factor of IET in Semporna, Sabah, is very high in all aspects of the items presented. The results of the study found that the percentage of somewhat agree scale is large, with 0.0 per cent disagreeing on the items offered, namely, joining forces with friends to achieve teaching objectives, having a concern in solving student problems, trying to create a fun teaching atmosphere in the classroom and providing motivation to stimulate students to think in teaching.

In this era, IET needs to be responsible for providing education and producing behavioural changes in students through interactive PdP and prioritising thinking skills. For that, IET must understand the idea of change perfectly and sufficiently and organize a neat strategy to ensure that changes can be implemented successfully. To deal with changes in innovation, IET needs to master constantly changing technology in addition to further improving knowledge and teaching quality (Timotheou et al., 2023). IET

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needs to practice a reading culture, a learning culture, a thinking culture and a writing culture. Improvements in knowledge and technology should be carried out by IET because the ability of IET to solve problems depends on the teachers' ability as facilitators, problem solvers, catalysts and drivers of learning.

In conclusion, it was found that creative ability in teaching methods is an important element to be an excellent and quality IET; the higher the level of teaching and leadership skills a teacher demonstrates, the more their quality will be highlighted and make them a quality teacher. The IET's ability to diversify appropriate teaching methods that are easily understood by students and the teacher's understanding of students' abilities gained through experience and mastery of knowledge greatly affect the teacher's teaching.

Third, Personality Factor

Descriptive analysis shows that the personality factor of IET in Semporna, Sabah, is very high in all aspects. The findings showed that ten aspects showed 0.0 per cent on the disagree scale. While the others showed at least 0.1 per cent disagreeing with the aspects presented in this study. This situation shows that IET in Semporna, Sabah, has made this personality factor their practice one of the priorities in the teaching profession. This may be due to teachers' understanding to maintain a clean conscience of the nature of *mazuma* and be adorned with the nature of *mahmudah.* The findings of this study indirectly show that IETs should have critical thinking. A critical attitude is a tendency or internal motivation (disposition) to examine information and make decisions using critical thinking (Urhahne & Wijnia, 2023). When facing a situation or problem, individuals can choose whether to solve it critically. Because critical thinking requires hard work, this attitude factor influences the effectiveness of thinking, whether to apply the skill or to suppress it.

However, this study's findings differ from the studies of (Mohd Zeki et al., 2021), which found that IET is somewhat less interested in a culture of excellent professionalism. Allah SWT has created every person with different strengths, weaknesses, and interests. Teachers with a culture of excellent professionalism have a high level of competence in the field they are interested in. Of course, these strengths need to be polished until they reach a professional level so that they feel fun and remain enthusiastic about being in the teaching profession. Allah has given every human being different strengths and significant interests. These strengths need to be polished until they reach a professional level.

In this study, the teacher's environment is directed towards three aspects that IET chooses in cultivating the application of these HoTS elements. This aspect is the systematic management of material resources that will make everything easy to manage. The second aspect is the art of communication, which is synonymous with IET, especially for those familiar with talks and lectures. But this time, it is quite different because it sees other opportunities, such as becoming a host or focusing on working behind the scenes as a manager of a public speaking event. Next, the third aspect is the art of writing, language, voice, and hobbies. These cultures of competence can make a teacher very special in the eyes of school residents, the educational community, and the local community.

Identifying differences in the level of implementation of HoTS elements in teaching Islamic Education based on gender, age and teaching experience Based on the findings of the analysis, it is shown that there is no significant difference between the level of

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IET quality based on gender and teaching experience of teachers. This situation illustrates that the level of IET practice is the same based on gender. This situation is likely due to the training factors received by all teachers at the level of their educational institutions before being appointed as teachers. This finding supports the study's findings (Jamil, 2024), which state that there is no significant difference between teaching practices by gender and the categories of urban and rural schools in teaching Islamic Education.

Similarly, Misnan Jemali's study (Mokter, 2019) shows no significant difference between gender and school location in teachers' teaching practices in teaching the Quran. The study by (Mat Rabi et al., 2020) also found that school location does not affect differences in the teaching practices of Islamic Education teachers. The quality of an IET is more influenced by personal factors than environmental factors. Therefore, the internal aspects of IET need to be improved so that the quality of IET is always at an excellent level. However, for the demographic factor of gender, the same findings show differences in the quality of IET based on gender because they have advantages that can be polished and, at the same time, have shortcomings that can be improved.

The findings show a significant difference between the level of application of HoTS elements of Islamic Education teachers with age. The findings show that teachers aged 45 and above have a difference in the application level of HoTS elements compared to IET in other age categories. This situation indicates that Islamic Education teachers aged 45 and above have better practice in applying HoTS elements than teachers in different age categories. This may be due to the experience of teachers who have served in this field for a long time. The findings of this study also support the findings of a survey conducted by (Odanga et al., 2024), showing that age differences impact the implementation of teacher professionalism development in schools. Therefore, age plays a role in teacher teaching and learning. Generally, the longer someone serves, the more experience and skills they have.

However, with increasing age and experience alone, the quality of teachers cannot be improved; the quality of teachers needs to be enhanced with knowledge, practice and continuous efforts in various ways. The findings of this study are almost identical to the results of the survey by Najiah Mohd Khalid, showing that the percentage of teachers with teaching experience for 11-20 years is a group with a higher level of reading practice compared to teachers with less teaching experience. The study was conducted to find out the extent of the relationship between reading practice and teaching experience among teachers.

IV. CONCLUSION

This study confirms that applying the higher-order thinking Skills element in the teaching of Islamic Education at Sekolah Kebangsaan Semporna significantly influences the development of students' critical and creative thinking skills. The study successfully addressed its main objectives, which were to identify the level of implementation of HoTS and analyze the differences in implementation based on gender, age, and teaching experience. The main findings showed that the overall implementation of HoTS was at a very high level, and the factors of knowledge mastery of HoTS, teaching methods, and teacher personality contributed significantly to the implementation of HoTS. No significant differences were found based on gender, but there were differences based on age, with more experienced teachers showing higher

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levels of implementation. These findings imply the importance of developing higher-order thinking skills in students to face the challenges of globalization and improve the quality of education. Schools and educators should continue to improve training and mastery of higher-order thinking skills for teachers and integrate higher-order thinking skills elements in the curriculum more comprehensively to support more effective and meaningful learning.

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