

# Teaching Practice of Islamic Education Teachers Based on Higher Order Thinking Skills (HOTS) in Primary School in Malaysia: An Overview of the Beginning

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## Abstract

This study aims to identify teaching practices based on Higher Order Thinking Skills (HOTS) which includes overall Malaysian. This study is an initial survey before further study on the run. Components such as higher-order thinking skills vary appeal, reorder the skills, skills forecasting, skills and expertise to create a definition of the analogy, that in view of the three main components of the initial of teaching, development of teaching and teaching cover selected as the conceptual framework. This study used a descriptive analysis (via questionnaire). All of data collection instruments were developed by the researcher and the contents were verified by expert reference panels. Cronbach alpha reliability level value obtained is high at between (0.9345). A total of 400 teachers of Islamic education were randomly selected and clustered to answer the questionnaires. Data were analyzed descriptively using percentages frequency and min. Overall, the study found that teaching practices based on higher order thinking skills is at the high level by means of the whole (4:43) and based teaching practice components consisting of an initial lesson min (4:45), development of teaching recorded min (4:44) and teaching cover recorded min (4:40). Implications and recommendations benefit ministries, schools, teachers and the community in improving the level of teaching practices based on higher order thinking skills (HOTS) as envisaged in the Education Development Plan 2013-2025

**Keywords:** Higher Order Thinking (HOTS), Islamic education, teaching practices.

## 1.0 Introduction

Higher order thinking skills (HOTS) is a skill that requires organizing thoughts based on the ability to describe, interpret, create, reflect and correlate with the current situation. This HOTS emphasis in the education system is an extension of the implementation of critical thinking skills and creative (CCTS), which was implemented in 1993. The implementation process HOTS Malaysia is sourced bloom taxonomy and modified by Lorin Anderson through the top four ratings apply, analyze, evaluate and create (Hashim, 2012 ; Ministry of Education (MOE), 2014).

The transformation of the educational curriculum in Malaysian Education Development Plan (2013-2025) places great emphasis on the concept of higher order thinking skills (HOTS) capable of producing a generation who has the ability in critical and creative thinking. This approach was introduced to achieve the ultimate goal of education of producing more students who have high level of cognitive ability through active learning pedagogy for the teaching and learning. However, the goal has not yet been fully achieved, the various approaches have been introduced to produce human capital that is intelligent, creative and innovative to meet the challenges of the 21st century so that the country can compete on the world stage (Lasiun, 2016). According to (Amabile & Pillemer, 2012).

*"If you want potential students to think and to solve the problem we need to start preparing complex assignments that require high thinking"*

This notion coincides with the emphasis given by Islam, namely the ability of the mind is a key element in the formation of students' holistic balance between academic excellence and steadiness of character. Islam emphasizes the use of thought which should since hundreds of years before the western introduce, but it was not implemented and transformed so that it shows that western scientists who introduce these higher-order thinking. This is in support of expression by

Mu'az Bin Jabal, when asked by the Prophet s.a.w:

*"How will you judge if asked matter to you?" Mu'az said, "I will decide the matter in accordance with the law of God (the Book). When I did not find in the Al-Quran, I will decide with the Sunnah of the Messenger of Allah, I will do ijihad in my abilities." (Zaidan, 2006).*

The transformation process of Islamic Education was formulated based on the implementation of teaching in schools through modification involves the ability of the curriculum, the establishment of school culture, improving teachers' knowledge and the ability of students to apply for any content learning gained to aim the introduction of teaching and learning (PdP) oriented HOTS can be implemented effectively and lead to a steady appreciation of the faith among the students. (Hisham, 2011; Ramdzan, 2013).

## 2.0 Background Of The Research

### 2.1 Higher Order Thinking Skills (HOTS)

Higher Order Thinking Skills by (Rajendran, N, 1998), 2001 ; Brookhart, 2010 ; Lasiun, 2016) is questioned, seeks, understand and analyze things to understand the thinking of themselves and others. Among the activities that can be carried to higher order thinking skills (HOTS) is through active thinking, look at the context of the environment based on different perspectives and develop each idea regularly. So, this study will use a variable that is approved by the experts in implementing HOTS in teaching as follows.

**i) Making skills category**

These skills require the ability of students to develop an understanding of the differences that exist in any content categorized as acts of worship or religious customs. And be understanding of the needs of students with knowledge of the contents of religious practices and traditions as found in the teaching content (Noor, Jasmi & Shukor, 2011; Ariff, Mansor & Yusof, 2016).

**ii) Skills to arrange in order**

Organizers sequence is generated through the skills of critical thinking and being organized. This preparation involves either from the abstract to the clarity, easy to difficult, public and priorities specific to the habit. This preparation is done by collecting the entire contents of these skills requires preparation and analysis ensure that high in order to do is to coincide with the structure of the science involved (Ragendran, 1998; Khalid, T, 2010; Noor, Jasmi & Shukor, 2011).

**iii) Skills to make predictions.**

Abilities to assume things are expected from the approach we use is through the terms that have been set. The ability to anticipate the need to analyze and assess the entire item to the findings should lead to the development. The ability to make predictions can be civilizing framework for analysis is part of the students (Lockman & Noordin, 2008; Ariff, Mansor & Yusof, 2016 ).

**iv) Abilities to generate ideas**

The ability of students to develop the facts found by the knowledge presented by the teacher. The idea generation process and restructuring guidelines require that the idea was developed to coincide with the objective needs required. Idea generation process requires mastery of skills by teachers through understanding regarding how an idea should be developed and tied in with other ideas. (Sulaiman & Hj Hashim, 2011).

**v) Create skills definition**

Students' ability to define any matter indicates that there is an understanding in the students. Definition of an overview of a content knowledge into a framework for further elaboration deeper. Teachers are responsible for guiding students to have skills in defining science content even though each student may portray a slight variation of definitions but as long as it is within the knowledge, the definition can be accepted (Khalid T, 2010; Noor, Jasmi & Shukor, 2011; Sulaiman et al, 2011).

HOTS implementation involves the whole learning content and components in school subjects including Islamic Education. Introduction of curriculum, pedagogy and assessment that emphasize this HOTS added to the basic Primary School Standard Curriculum (KSSR) which was first introduced in 2011. The creation of this curriculum to replace the Integrated Primary School Curriculum (KBSR) requires learning to apply the concept of Islamic Education and practice in everyday life in line with the emphasis which is being emphasized in the Quran and Sunnah (Ramdzan, 2013 ; MOE, 2014).

**3.0 Statement Of Problem**

Quran emphasizes the use of common elements that should involve comprehension, application, appreciation and application in everyday life. Debated the role of reason in the

Qur'an with the goal of understanding how humans can use in tandem with the changing human thought in this century. This can be explained through the word of God swt means: (Al-Shafi'i, 2010)

*"Do they not consider the kingdom of the heavens and the earth and everything that Allah has created, and (think) their destruction may have been nearby? So, in which more after (the coming of the Quran) will they believe?"* (Al-Araf, 7: 185)

The cultural development process of this sense applied to the educational process which is fundamental to the development of the use of reason and thought challenged with higher among students and is in line with the requirements of the Quran and Sunnah (Baba, Salleh, Zayed & Harris 2015). Although the main focus on subjects such as math and science, subjects of Islamic education is no exception in applying the elements of higher-order thinking as it is a call that has been set in the drawing this Al-Quran (Jasmi, Tamuri & Hamzah, 2010).

Framework for the use of reason is the ability of the world community believe that the knowledge and skills needed by students to meet the challenges of the 21st century. Although there are differences in proposed terminology skills of the 21st century (21st century skills) among the countries in the world, but all of them focus on knowledge, skills and values (Saavedra & Opfer, 2012). In addition, a report by consultants Kestrel Education of England and 21st Century School of the United States in 2011 states that higher-order thinking among teachers and students in Malaysia is still low. Based on research conducted for teacher instructional containing pedagogy based on higher order thinking skills (HOTS), it seeks to increase the understanding and practice changes in attitude (Boaler, 2008; Nasir, 2014; MOE, 2014).

Based on studies conducted by (Halim, & Mohammad Ajuhary, 2010) in a study of 89 of the 91 students were interviewed and made observations on the state of Selangor, Perak and Terengganu have found that teaching methods are often used by teachers lecture method and description in teaching Islamic Education. This means that teaching and learning methods of Islamic Education is teacher-centered and this affects the level of students' understanding of how to apply the lessons delivered by teachers among students. This study was supported by research (Wan Embong, Mohd Noor, Haron, Ripin, 2013; Nasir, 2014) found that teachers in the teaching of Islamic Education, the use of teaching aids (BBM) in the teaching of Islamic Education in schools is moderate only because the focus of instruction on methods lighting only. This is contrary to the teaching practices KBAT which requires fuel used optimally to explain a problem, especially issues of faith that should be displayed using video, interactive Internet and virtual networks.

This is in line with studies carried out by (Kamarul Azmi et al, 2012) found that Islamic Education teachers delivering lessons using 80% lecture and lecture methods in an allotted time. This causes the element to create boredom, no understanding, cannot associate with the current situation, drowsiness and loss of concentration among students. This is evidenced by a study (Hussien, 2005; Ramdzan, 2013), the educational process is carried out to the students of the primary school level, the formation of the elements of imagination, animation, fantasy and musicals are among the approaches suitable in the process of effective teaching to the children.

As a result, a generation of Muslims who produced it may be wise and high level of academic development but in fact the inability to translate the knowledge acquired in the form of a steady appreciation of the faith and in accordance with the laws of Allah swt. This balance needs to be practiced in every student and this is the reason why HOTS needs to be done in tandem with the implementation of Islamic Education of other subjects such as science and mathematics (Halim et al, 2010 ; Hashim, 2012).

Therefore, the study looked at the practice of education teachers based on higher order thinking skills (HOTS) in the primary division of three main components, namely the start of teaching, development of teaching and teaching cover.

#### **4.0 Research Objective**

- i) Identification of Higher Order Thinking Skills (HOTS) at the beginning of the lesson.
- ii) Identification of Higher Order Thinking Skills (HOTS) based on the development of teaching.
- iii) Identification of Higher Order Thinking Skills (HOTS) under cover of teaching.

#### **5.0 Study References**

The emphasis of the Quran is to trigger the transformation of education in this century through the use of reason to explore the understanding of the issues being debated. Al-Quran has talked about the importance of the mind 1400 years ago regarding how the discovery of knowledge and translate into life but the process is understood in the context of the theology without expanding the knowledge of worldly another, then the western world has been theorized that the mind and thought of as something that valuable and should be utilized, then there exists diversity puts science exploration as the core reason. Sciences such as science thinking skills, logic, science meta-cognition, the knowledge of higher-order thinking and knowledge reflective describes how the thought process is carried out and the results of this science approaches, theories and teaching methods have been introduced to ensure that the process of understanding the human fundamentally structured and systematic (Azhar, 2006 ; Hashim, 2012).

Based on the achievements of Malaysia in the international PISA tests in 2009 were very sad because of the position of the third lowest in the world and even Thailand has overtaken our position. This is very frustrating especially when the government allocates a tremendous amount of fund and much higher than the country surpassed Malaysia in the PISA results. This performance occurred when the ratio of teachers to students in Malaysia is the highest at 1:13 compared to other countries. We see that the form of questions in the PISA test is more to solve problems that require higher-order thinking skills such as analyzing, evaluating and synthesizing and not just applications. Thus, it gives us a sign that our education system is still weak in equipping students with the skills (MOE, 2014; Lasiun, 2014).

So called from the issue, the ministry has been implementing policies Malaysian Education Development Plan (2013-2025), which outlines six natural aspiration of every student in order to face the challenges of globalization and the current, in line with the National Education Philosophy:

- Knowledge
- Thinking skills
- Skills to lead
- Bilingual skills
- Ethics and spirituality

- National identity.

This framework of thinking skills translate to higher order thinking skills (HOTS) are applied to the seven key elements of curriculum, assessment, pedagogy, curriculum, capacity building, resources and support for community and private sector. Interlacing all these elements will ensure the implementation of this HOTS can achieve the goals and aspirations set (MOE, 2015).

The study, conducted by the Ministry of Education through the Curriculum Development Division to prove emphasis on higher order thinking skills must involve capacity building of teachers in teaching involving almost all countries in the world with the goal of producing students who are competitive, knowledgeable, critical thinkers, creative, skilled and capable of creating new ideas (Savendra & Opfer, 2012; Brookhart, 2012) Based on studies conducted by the American Management Association (AMA) and the Partnership for 21st Century Skills Malaysia in 2010 related to the level of skills required by students to excel in learning 21. Ini century based on Table 1

Table 1:  
The learning needs of the 21st century.

Percentage	Skills
Critical Thinking Skills	97%
Communication skills	95%
Creativity and innovation skills	92%
Cooperation in the Group	92%

Based on Table 1, of this formation needs of students who have the capacity for knowledge, skills, particle, creative, critical and innovative. The formation of these students would be better if it is started from the primary school level because the student's ability to absorb all the information is better and more effective (Abdullah Nasir Ulwan, 2002). Developing thinking skills when children are involved in activities that give them the opportunity to observe, play, imagine and explore based on the need to test self-reliance at the primary level (Khalid. T, 2010)

(Noor, Jasmi & Shukor, 2011) in his study regarding students' perceptions of teaching Islamic education teachers in five secondary schools in Selangor. The findings show that the practice of teaching at the high level with the start of teaching such items introducing the title of teaching (min 4:44), to make sure students are ready (4.39), started teaching with induction set interest (mean 3.97) the next usage of fuel ( 3.66 min) at a moderate level and cover aspects such as the identification and questioning students (mean 4.09), advise (min 4:43), training (4:43 min) also are at high level of primary school

A study carried out on the implementation of teaching practices for primary school teachers has been done by (Ramdzan, 2013) related to readiness, practices and strategies for teaching in the primary school curriculum standard (KSSR) in one. The survey involved 160 respondents teacher who taught in one of 101 schools. The findings showed a high degree of readiness of teachers in implementing the teaching and learning of Islamic Education KSSR

Year One with no significant differences in the level of readiness of teachers based on teaching experiences. The findings also show that the practice of teaching strategies used by teachers is centered strategy teacher and student centered strategy based teaching practices HOTS

A study conducted by (Suhid & Fakhruddin, 2010) states in his study teaching excellent teachers of Islamic Education (GCPI) secondary level in Malaysia. Results of a study conducted by the perception of the goals and objectives of teaching at the high level (mean 4.17); induction is set at the level of moderately high (3.91 min) and fuel consumption is low at a moderate level (mean 2.68). Generally, the more focused and limited to a number of very limited GCPI and habits have certain criteria to be selected as outstanding teachers.

Related research is also conducted by HOTS (Nasir, 2014) under the title of novice teachers' professionalism in knowledge, willingness to teach and higher order thinking skills (HOTS) on the implementation of teaching in schools. The study looked at the components related to teacher professionalism in the management of knowledge, willingness to teach and implementation of teaching in schools. The study involved 400 teachers involve the entire state with a focus on teachers who teach between one and three years. The study found that novice teachers have a high level of professionalism related to knowledge management, availability of teaching and higher order thinking skills (HOTS) by factor analysis (EFA) found item instrument that exceeds the loading factor (loading factor) 0.50 involves 85 items.

Combined overall this study proves there is a practice of effective teaching among teachers and it can be further strengthened through the implementation of elements of higher order thinking skills through teachers' ability to carry out (making skills category, arrange in order, make predictions, compare and contrast skills, generate ideas, create definition and skills to create analogies) in teaching to ensure students meet the national aspirations of the students are not only able to understand and master but was able to apply and contribute to sharing mutual understanding.

## **6.0 Research Methodology**

### **6.1 Design Review**

The design of this study is a quantitative survey method. The finding is seen through the numbers and estimates that include a certain formula. According to (Creswell, 2009; Pallant, 2010), the survey method is a specific way to gather information about a large group of the population. This survey method using a questionnaire aimed at assessing which involves three main component.

a) Commencement of teaching that involves (banding skills vary, collating sequence, making the definition, forecasting skills, skills in generating ideas and skills to make the analogy).

b) Development of teaching that involves teaching strategies, teaching presentation and teaching material (banding skills vary, collating sequence, making the definition, forecasting skills, skills in generating ideas and skills to make the analogy).

c) Concluding lesson involves the formulation of teaching, teaching reflection and association with the next lesson (banding skills vary, collating sequence, making the definition, forecasting skills, skills in generating ideas and skills to make the analogy)

This study is a preliminary survey that only use questionnaires and methods of measurement based on descriptive analysis of the test means for determining the

characteristics of variables without generalization. The study used an instrument on how the implementation of higher order thinking skills implemented in the teaching of Islamic Education

## **6.2 Population and Sample**

This study involved the teachers of Islamic Education for primary schools in Malaysia, totaling 400 people with seat represents the 5 zones studies in areas involving Kedah, Selangor, Malacca, Terengganu and Sarawak. The total number of teachers of Islamic Education in Malaysia is 38, 502 people based on information from the Education Division, Ministry of Education but under the table (Krajie & Morgan, 1970 ; Majid, 2005 ; Cohen, 2007) through a sampling of the population, the number of suitable set of 382 people however, in this study using the 400 teachers participated in this study. The teachers were selected among the teachers who teach based on gender, academic qualifications, age and teaching experience.

## **6.3 Research Instrument**

The instrument or instruments used in this test is a set of questionnaires. This questionnaire is divided into two parts. At the top I found a few items regarding the background of the respondents. In part II is an instrument that consists of 88 questions related to the question of the application of HOTS in teaching. All questionnaires are examined in advance to ascertain the respondents were in the right direction to provide the information as needed. After believes the items of the questionnaire, the researchers tested the respondents (Majid, 2005; Pallant, 2010). This questionnaire has been modified from i) an instrument of teaching based on HOTS developed by the MOE. ii) survey conducted in practice PHD thesis teaching by pastor Aderi Che Noh and Paharuddin Arbain. iii) HOTS assessment instrument developed by the Malaysian Examination Board.

## **6.4 Data Collection and Analysis**

The findings obtained data will be analyzed by researchers to answer this research question. From the data obtained it is hoped that researchers can identify the practice of teaching Islamic education based on higher order thinking skills with a view from the perspective of primary school.

The reliability of the questionnaire is at a high level, namely Alpha value recorded (0.82173). SPSS 20.0 was used to find the frequency, percentage and mean (Majid, 2005; Pallant, 2010) Table 2 shows the reliability of the components for the start of the recording (0.7727), a component of teaching (0.8905) and cover teaching recorded (0.8020).

Table 2:  
Value of Coefficient Reliability Survey Instruments

Variable Value	Alpha
Beginner Instructional	0.7727
Teaching development	0.8905
Teaching cover	0.8020

Five-point Likert scale has been used in this study. Method score used is Strongly Disagree (STS) with a score of 1 point, Disagree (TS) with a score of 2 points, Less Sure (KP) with a score of 3 points, Agree (S) with a score of 4 points and Strongly Agree (SS) with a score of 5 points. The data obtained is analyzed using descriptive statistics such as frequencies, percentages and means.

### 7.0 Data Analysis

Data were summarized and analyzed as exhibited on Table 3. The analysis was done based on the frequency and percent for sex, age, level of education, teaching experience for Islamic Education teachers in the implementation of higher order thinking skills (HOTS) Islamic Education.

Table 3:  
Analysis of frequency and percent for sex, age, level of education, teaching experience for Islamic Education teachers.

Variable	Frequency	Percent
Gender		
1) Men	151	37.75
2) Women	249	62.25
Age		
1) Less than 35 years	113	28.25
2) 35-45 years	188	47.00
3) 46 years and over	169	24.75
Educational status		
1) STPM	68	17.0
2) Diploma	211	52.75
3) Bachelor	83	20.75
4) Master	38	9.50
Teaching Experience		
1) 1-4 years	17.0	68
2) 5- 8 years	83	20.75

3) 9 -12 years	38	9.5
4) Over 13 years	211	52.75

Based on this schedule, the gender distribution of teachers involved in this study was composed of 151 men and 249 women, with the majority aged around 35-45 years. This shows that most teachers are in productive stage in contributing to effective teaching practices and is based on HOTS. The study also involves teachers aged less than 35 years of 113 people and teachers aged 46 years and over as many as 169 people. For the category of education, it was found that teachers were in diploma and studying for a degree, this proves that teachers have a commitment to increase knowledge related to teaching approaches that are effective and this is one of the elements in the implementation of higher order thinking skills of teachers knowledgeable. For this category, the level of education, in which teachers have found STPM level is a total of 68, followed bachelor's degree were 83 people and the masters of 38 people.

For the category of teaching experience in getting teachers involved in this study is made up of teachers who have been teaching for more than 13 years, ie a total of 211 people and this show there will not exist problems in the implementation of higher order thinking skills is due to have a basic lesson to diversify methods can attract the attention of students. For this category of teaching experience, teachers with less than 4 years were 68 people, 9 of 38 people by 12 years and 5 to 8 of a total of 83 people.

## 8.0 Findings

Description based on descriptive analysis of the mean and the description of each item of the study.

Table 4:  
Overview of Research Findings

Statement of Average	Min	Level
1. The application KBAT at the start teaching	4.45	High
2. The application of HOTS on development teaching	4:44	High
3. Application of HOTS on the cover teaching	4:40	High
<b>Average</b>	<b>4.43</b>	<b>High</b>

## 9.0 Discussion

Discussions related findings are based on the teaching components consisting of initial teaching, development of teaching and teaching cover.

### 9.1 Findings of Start Teaching

The researchers found that the application of HOTS in the subject of Islamic education among primary school teachers at the beginning of teaching at the high level with the mean average (4:43). Based on the findings of the initial instruction, recorded the highest mean a teacher is

always set objectives based on the analysis of the titles that have been taught before. This proves the teacher always concerned objectives should be set based on the level of students' ability to collect from the previous learning achievement. This shows the high level thinking skills element is always given emphasis by teachers of Islamic education in the classroom. But the improvements to be carried out on teachers to apply for student opinion regarding the fuel to be used in teaching, because the allotted time is limited, the fuel used habits limited to only one or two tools only. In terms overall, the study found that the practice exists high in the beginning of the practice of teaching Islamic education.

### **9.2 Findings of Development of Teaching**

Teachers apply HOTS on the level of teaching is at a high level with the mean average (4.39). Based on the findings for the development of teaching, had the highest mean percentage of teachers has always given activity is in the process of enrichment of knowledge and understanding of students subject to fixed measure. This proves the ability of teachers to use creativity to enhance the ability of students through activities such as group work, study subjects and skills to analyze a topic in teaching. This indicates that the application of elements of higher order thinking skills (HOTS) by Islamic education teachers in the classroom. But the improvements to be carried out on teachers allow time for students to discuss, this approach is difficult to implement in primary schools because the ability to understand the concept of working in groups in low.

### **9.3 Findings of cover teaching**

Teachers apply HOTS on the cover of the instruction is at a high level with the mean average (4:40). Based on the findings for teaching cover recorded the highest mean is related to teachers to reflect on teaching and students to reflect upon learning. This proves that teachers give students the freedom to reflect the level of understanding, ability and the ability of students but teachers will ultimately make the entire formulation, but part of the process of higher order thinking skills (HOTS) that are student-centered, students are exposed to a process of reflection on how to do. This demonstrates the understanding of Islamic education teachers in higher order thinking skills to be applied to the student through related content in teaching but other related issues that are not related

But the study found there are still teachers gauge student understanding is only intended for examination only, not for the acquisition of knowledge for teachers tied to performance evaluations based on students' ability in the exam, this change requires a whole system including policy, administration and implementation process. In terms of the overall picture through this initial survey found that practicing high inherent in the practice of Islamic education teachers teaching cover in Malaysia.

### **9.4 Findings Overall**

The findings of the survey conducted, the application HOTS Islamic education teachers in teaching Islamic education subjects had a mean high (4:43). This results from the findings of the initial teaching of the mean (4.45), while for the development of teaching recorded min (4.44), while for the cover teaching recorded min (4:40) of (elements of skills compare the difference, arrange in order, make predictions, skills to generate ideas, create definitions, and skills to create analogies).

In conclusion the whole of this study can strengthen and enhance the content of teaching in the HOTS in the subject of Islamic education and focusing on the important terms in the elements of higher-order thinking and some new issues to strengthen students' understanding of the importance of understanding, analyzing and applying in practice in everyday life.

### 10.0 Summary

Based on our preliminary review, this study has produced data showing that teachers had significantly higher levels of practice pedagogical skills to teach HOTS through Islamic Education. These teachers believe the inventory of aspects of knowledge, pedagogical skills and attitudes to teach education and teachers believe that lack of readiness in terms of knowledge, skills and attitudes to teaching pedagogy HOTS cause the teaching process will only be static and boring. Data were collected through questionnaires supports earlier studies that the practice of teaching in classrooms is the effectiveness of different teaching elements HOTS.

But in the next study, elements such as attitudes, skills, knowledge and the teacher can become the focus of research in ensuring implementation of the framework can be applied HOTS in every aspect of teaching practices in the classroom. Further research could involve research practice higher order thinking skills (HOTS), whether it involves elements of curriculum, assessment and capacity building and use of data analysis and further study in detail.

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