

## HIGHER ORDER THINKING SKILLS AMONG ENGLISH TEACHERS ACROSS GENERATION IN EFL CLASSROOM

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**Abstract:** Higher order thinking skills are the next cognitive ability to evaluate, analyze and create. It is a must for English teachers across generation (Baby Boomers, Generation X, and Generation Y) to grasp and implement the idea of HOTS in their classrooms. Teaching English in EFL setting certainly forces the teachers to have expertise in planning the learning activities that would foster students' thinking skills, especially their HOTS. This study aims at investigating the perceptions, the practice, and the constraints in endorsing higher order thinking skills in teaching foreign language. This case study involved seven senior high school English teachers from three generations (Baby Boomers, generation X, and generation Y). Data were collected through open-ended questionnaire, classroom observation, and document analysis for triangulation purpose. Data were then categorized and classified to form themes for the study. The results showed that teachers from all generation are aware of HOTS and they are applying it in their teaching in a different way. However, some obstacles are still found in incorporating HOTS in their classroom.

**Keywords:** *EFL; English teaching strategies; generation theory; HOTS.*

### INTRODUCTION

The demand of 21st century in education comes with the need of thinking ability which is called as higher order thinking skills. Many experts have mentioned that higher order thinking skills (HOTS) and students' academic performance are interrelated. In this sense, students who learn with critical thinking skills often perform well in their education (Tam & Linh, 2017).

The use of HOTS is significant for educational process especially in teaching and learning. Learners' thinking ability in learning can affect the effectiveness of learning itself. The skills cover all kind of ability of the abstract skills, including critical thinking skills and problems solving skills (Nourdad, Masoudi, & Rahimali, 2018). Those thinking skills are needed in nowadays situation in which students are forced to use their critical thinking skills to solve their problems. As for example, students can use their thinking skills to analyze and choose correct information from the internet and students can also create new idea to write a report or to present their finding about a social phenomenon at school. That is why higher order thinking is urgent for students.

The urgent needs of critical thinking skills has been stated by Reid (2014) that students become self-conscious and self-monitoring to what they think about strategies to solve the problem. Self-conscious means students aware of what they are learning and self-monitoring means that students reflect about their ability and barrier to solve the problems. The ability to solve the problem is one of the thinking skills that human need in current situation. The theory of human thinking skills was classified by Benjamin Bloom in the beginning of his publication entitled *Educational Objectives: The Classroom of the Educational Goals*. It was the original version explaining the learning objectives and thinking ability.

According to Weay, Masood, and Abdullah (2016), Bloom divides the educational objectives into three, namely cognitive, affective, and psychomotor domain. In the Bloom taxonomy, cognitive domain is classified into six levels, namely knowledge, comprehension, application, analysis, synthesis, and evaluation. Affective domain is classified into five levels, namely receiving, responding, valuing, organizing, and characterizing. Meanwhile, psychomotor domain

is classified into seven levels, namely perception, set, guided response, mechanism, complex over response, adaptation, and origination. Those three educational objectives are then popularly known as Bloom Taxonomy.

On the other hand, Anderson and Krathwohl (2001) as cited in Harris *et al.*, (2014) declare the new cognitive domain which include remembering, understanding, applying, analyzing, evaluating, and creating. The differences between the original and revised version are on the analyzing, evaluating and creating that previously are analyzing, synthesizing, and evaluating. Thus, the new version states creating is the highest thinking ability and remembering is the lowest thinking ability.

Further, the thinking skills are not only categorized based on cognitive domain, but also based on cognitive levels. Basically, there are three categories of cognitive levels including LOTS, MODS, and HOTS. In this sense, remembering is categorized as lower order thinking skills (LOTS); understanding and applying are categorized as middle order thinking skills (MODS); and the next cognitive ability to evaluate, analyze and create are categorizes as higher order thinking skills (HOTS). As stated by Rajendran and Idris (2008) in Chidozie (2014), higher order thinking skills involve the need of analysis, evaluation, and creation or production as thinking skills. As parts of HOTS, analyzing is an ability to break information into parts and to arrange the useful information; evaluating is the ability to reflect to something and make judgment; and creating is the highest ability to generate new ideas or concepts.

The process of learning and gaining new knowledge should pass the lower order thinking before goes to the higher order levels. Therefore, learner should remember, understand, and apply the knowledge to reach the next cognition (Rosli & Maarof, 2016). Thus, it means that thinking is an order sequence process and it is not a sudden process.

Higher order thinking skills always become hot issue in education (Latief, Pabbajah, & Karim, 2016). The importance of those thinking skills has been acknowledged since decades ago. Thus, it can be assumed that HOTS should not have become a problem for teachers from all generation to incorporate it in their classroom. Basically, there are three generations of teacher nowadays. First, whoever born between the years

1945 and 1964 is typically called Baby Boomers. They who were born between 1965 and 1979, the smallest generation, are called digital immigrants or Gen X. The newest generation, Gen Y, is whoever born between 1980 and 1999. Other names for this generation include Millennial, Echo-Boomers, and Net Gen (Gibson, Greenwood, & Murphy, 2009).

In the teaching and learning process, teachers should have the ability to design and execute HOTS integrated with subject matter (Sutarto, 2017). Basically, HOTS can only be activated when individuals encounter unfamiliar problems that need to solve in complex, non-routine and non-structured solution. Yet, as revealed by Margana and Widyanoro (2017), students in Indonesia are developed under the basis of LOTS cognitive level. Hence, this study intends to find out: 1) the teachers' perception towards HOTS, 2) the implementation of HOTS in the classroom, and 3) the constraints faced by teachers in implementing HOTS in EFL classroom.

## **METHOD**

This descriptive qualitative study was conducted at SMAN 2 Cianjur, a public senior high in the center of Cianjur, by involving senior high school teachers from different generations. The teachers are members of English teacher association in Cianjur. It is an organization where teachers from various schools gather together as forum communication among English teachers. The data in this study were collected through open-ended questionnaire, document analysis, and interview. First, the open-ended questionnaire consists of 16 questions which explore the teachers' perspective, the application, and the constraints faced by teachers in implementing HOTS. Questions numbers 1-5 ask about the teachers' perception and understanding on higher order thinking skills. Questions numbers 6-10 ask how teachers apply the concept of higher order thinking skills on students' learning. Then, questions number 11-16 try to analyze constraints faced by teachers in implementing higher order thinking skills in the classroom. Second, documents are in the form of teachers' lesson plan. Finally, the interview is conducted to teachers participated in this study. The data were then analyzed descriptively.

## **RESULTS AND DISCUSSION**

The discussion will be divided into three subsections following the central themes of this study, namely the teachers' perception towards

HOTS, the implementation of HOTS in the classroom, and the constraints faced by teachers in implementing HOTS in EFL classroom. To make relevant comparison, the study compares only two generations which are mostly active on teaching in current years; they are teachers from generation X and Y. Basically, there are three elements assessed, namely comprehension to theory, point of view on HOTS, and perception based on importance.

### Teachers' perception toward HOTS

To explore teachers' perspective and understanding, questions number 1-5 in the questionnaire covers what teachers know about the theory of HOTS, teachers' opinion about students having HOTS, teachers' understanding on preparing the teaching, etc.

When a teacher from generation Baby Boomers (Gen BB) is asked about what s/he knows about HOTS, the teacher states:

*"It is the way where thinking is levelled. Higher order thinking skills refer to the ability to evaluate, analyse and create."*

The teacher has been teaching for years so that s/he really knows about the definition and the importance of HOTS for students. The teacher knows that the ability to evaluate, analyse, and create are strongly needed by students.

Then, when two teachers from generation X are asked with the same question about what they know about HOTS, both have same answers:

*"HOTS (Higher order thinking skills) are the ability of thinking in high level in order to help students to prepare their future."*

The teacher from generation X seems to know the definition of high level thinking. Teachers from this generation want to prepare their students for better life in the future. It implies that they were focusing on students' life.

More description on teachers' perspective came from gen Y teachers as the youngest generation. They were teachers who just started teaching so that they have less than five-years experiences of teaching. One of them provides the following response:

*"I personally don't know much about HOTS. But I ever heard that in Curriculum Material Development (CMD) subject in my college."*

From the statement, it can be seen that the gen Y teacher does not know about HOTS since s/he has lack of experience in teaching.

The next finding is related to teachers' opinion on students with higher order thinking skills. There are two teachers who gave clear response concerning their view on their critical students:

*(#1) Students can perform in higher order thinking skills such as in creating text. (#5) I assume that students with HOTS will be more active, have higher understanding, and become creative thinkers.*

Teacher #1 is from gen BB and teacher #5 is from gen Y. From the statement, it can be clearly seen that the Gen BB teacher tends to see HOTS as the highest level on the result of thinking that is creating. Meanwhile, the gen Y teacher sees the general view on their students.

From the discussion, it is revealed that teachers from Generation BB and X have well understanding about HOTS. This generation is senior teachers. They are capable on pedagogical theory, including Blooms' taxonomy. Regarding their understanding about HOTS, they know that HOTS covers the ability to evaluate, to analyse and to create something.

The data of the teachers' perception towards HOTS are depicted at the following tables.

Table 1. Gen BB teachers' perception towards HOTS

Elements	Teacher: Generation BB
Comprehension to theory	Teachers understand the definition and theory related to HOTS. They also know that HOTS covers the ability to evaluate, to analyse, and to create.
Point of view on HOTS	Teachers view students who have higher order thinking skills can create or product something like create a text, for example.
Perception based on importance	HOTS are important for students and their future.

From Table 1, it was clear that teachers from generation BB completely comprehend the concept of HOTS. It was because they have experience on teaching for years. However, they will be retired for some next years, so that teachers from newer generations should learn more about thinking skills from the gen BB teachers.

Table 2. Gen X teachers' perception towards HOTS

Elements	Teacher: Generation X
Comprehension to theory	Teachers know that higher order thinking skills used as the way for levelling the thinking ability. Teachers know that HOTS include the ability to evaluate, to analyse, and to create.
Point of view on HOTS	Students can perform by using higher orders, such as creating and explaining concept both in written and oral text.
Perception based on importance	HOTS are important for students to understand such concepts.

From the table, it can be seen that the generation X teachers have already known HOTS concepts as the highest level in thinking skill. Further, they realized that it covers several stages such as evaluating, analysing or synthesizing and creating. They also consider it as important skill to be mastered by the students. Teacher has implemented the theory on the practice of learning reading and writing, such as in creating a text about certain theme.

Teachers from generation Y have enough understanding on HOTS, but they still find difficulties to use the theory in practice. Because of the lack of experience, the teachers from this generation have perception that students' higher order thinking skills will develop depending on situation. The gen Y teachers' perceptions on HOTS are presented in Table 3.

Table 3. Gen Y teachers' perception towards HOTS

Elements	Teacher: Generation Y
Comprehension on HOTS	Teachers only know that thinking ability with high levels is called as HOTS.
Point of view related to HOTS	It can help the students, but they still face various difficulties to use it on that way.
Perception based on importance	HOTS demand students to create something.

The data shows that the teachers from generation Y only recognize HOTS as thinking ability. They mentioned that HOTS is important, but it is still very difficult to be implemented in

EFL classroom since it demands students to create a product.

Finally, the analysis reveals that each generation perceived HOTS differently. Surprisingly, generation X exceed the expectation that they have no sufficient understanding on HOTS concept. They even understand HOTS concepts much better than Gen Y teachers. This finding has proven that different age and experience of teachers affect the teachers' perception on the implementation of HOTS. In short, teachers' perceptions are strongly influenced by experience.

### The praxis of HOTS in EFL classroom

This study reveals interesting data regarding the practice of HOTS in EFL classrooms by the English teachers from two different generations. The data is gained from questionnaire and teachers' lesson plans. The questionnaire covers the teacher perceptions and their daily teaching experience on teaching language by levels. The lesson plan is then used as a comparison. The result of the analysis is summarized in the following table.

Table 3. The practice of HOTS in EFL classroom

HOTS implementation	Gen Xs	Gen Ys
Teacher preparation	Develop lesson plan, prepare the teaching material, prepare the multimedia and learning activity with various text.	Read a lot and prepare media or materials to be given to the students.
Classroom Practice	Involving students in such activities that demand them to evaluate collaboratively	Stimulating the students by observing the activity related to text.
Multimedia Usage Students' activity	Yes Discussion, presentation, discovery, project and problem based learning. Activities are designed to make students use their optimum thinking skills.	Yes Reading Speaking Writing Listening

It is interesting to know that there are some similarities as well as differences among English teachers across generations in implementing HOTS in their classroom. There are several points used as the indicator to see similarities or differences between the two generations; preparation, implementation, and evaluation to the students.

Regarding the preparation, basically, all of the teachers develop lesson plan and prepare the materials comprehensively. The teachers from gen X also read before teaching and the teachers from gen Y practice the teaching technique beforehand. These two activities show the teachers' professional competence. As a professional, preparation is an important key to provide aligned learning and assessment for students.

Next, in practice, the analysis shows a different way of practice. First, the teachers from gen X involve the students in such activities that foster collaboration among students, such as project based learning and problem based learning. Then, the gen Y teachers prefer to stimulate the students through observation activity. The observation is the very beginning process of learning. The activity designed by the teachers from gen Y is still at the low cognitive level, including remembering until applying. However, surprisingly, the gen Y teachers admitted to not implement HOTS in their classrooms, but they focus on text exploration on understanding level.

Moreover, teachers from both generations have utilized multimedia in their teaching and they have varied the students' activities. The Gen X involve discussion, presentation, discovery, project based learning and problem based learning for the students' activity. Meanwhile, the Gen Y teachers choose the language competence-based activities; they prefer discussion, watching English movie or listening to English songs for their classroom activities. The different practice among them might appear due to teaching hours and experience. The Gen Xs, in this case, have more teaching hours and experience compared to gen Ys.

### **Constraints faced by teachers in implementing HOTS in EFL Classroom**

Implementing HOTS in the classroom is not an easy task. Teachers must be encountering many obstacles. From the interview, it is found that teachers face various constraints in implementing HOTS in EFL classroom as the following.

- 1) Teachers' limited knowledge in choosing operational words.
- 2) Lack of experience in developing lesson plan based on thinking skill that is suitable with basic competence.
- 3) Teachers' lack of ability in infusing creativities to classroom activities.
- 4) Teachers too focus on transferring the knowledge rather than practicing students' metacognitive and thinking skills.

### **CONCLUSION**

From the analysis, it can be concluded that the Gen X teachers have shown more understanding on HOTS concepts compared to gen Y teachers. They also applied it in their classroom in various ways and have utilized multimedia. Meanwhile, the gen Ys admitted to not implement HOTS in their classroom yet. This condition might appear due to different experience among them. The baby boomers who have more teaching hours are benefitted to have more knowledge and skills from their experience. Conversely, the gen Y teachers only have the basic theories of teaching and lack of practice in teaching. However, implementing HOTS in EFL classroom is not an easy task. Teachers from the three generations admitted that they often face some constraints since many of them are lack of understanding and experience in developing lesson plan based on thinking skill that is suitable with basic competence. They also need to change the paradigm from transferring the knowledge into training the students' metacognitive and thinking skills.

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