

The Contribution of Professional Development Programme on HOTS-oriented German Language Teaching

Talitha Ardelia Syifa Rabbani

Universitas Indonesia

Email: t.ardelia.sr@gmail.com

Abstract:

This study examines the contribution of a professional development program on Higher-Order Thinking Skills (HOTS)-oriented German language teaching. Conducted at a high school in Jakarta, Indonesia, the research focuses on a German teacher who participated in the HOTS-based Language Teaching Methodology Training. Using a descriptive case study approach, data were collected through questionnaires, classroom observations, and interviews. The findings reveal that while the teacher demonstrated an improved understanding of HOTS and its integration into language teaching post-training, challenges such as limited preparation time, inadequate teaching materials, and students' low German proficiency hindered optimal implementation. Classroom practices predominantly emphasized lower-order thinking skills (LOTS), with minimal application of HOTS-oriented learning models introduced in the training. However, the teacher employed strategies like cultural comparisons to foster critical thinking. Student perceptions indicated confidence in using German during class activities but limited motivation to apply it outside the classroom. The study highlights the need for better-prepared teaching materials, more training support, and adjustments to classroom dynamics to effectively integrate HOTS into German language instruction.

Keywords: professional development; higher-order thinking skills (HOTS); German language teaching; teacher training; foreign language learning

Corresponding: Talitha Ardelia Syifa Rabbani

E-mail: t.ardelia.sr@gmail.com



INTRODUCTION

Since the 2013 Curriculum was implemented in the 2013/2014 academic year, the Indonesian Ministry of Education and Culture has mandated an integrated competency-based approach across all subjects, including German language instruction (Sofiana et al., 2019; Mariati et al., 2023). In the German subject, teachers are required to merge grammar, vocabulary, and text types with core communication skills—reading, listening, writing, and speaking—as advocated by the Curriculum’s text-based and contextual learning framework (Gunawan, 2016; Zabadi, 2023). Empirical studies demonstrate that contextual and task-based techniques, such as those from the NURS model, significantly improve German learners’ communicative performance across all four skills (Saksono et al., 2023). Moreover, integrating life-based and problem-based learning—a key component of the 2013 Curriculum—enhances student motivation and relevance of language acquisition (Funk et al., 2020; The Impact..., 2019). Finally, research confirms that aligning German language syllabi with real-

life contexts (e.g., tourism, culture) and CEFR standards positively affects linguistic competence and cultural awareness (Saksono et al., 2023).

For learners to be able to apply their language skills, they first need to develop a set of thinking skills known as higher-order thinking skills (hereinafter abbreviated as *HOTS*). Nourdad, Masoudi & Rahimali (2018) claim that *HOTS*-oriented learning trains learners to relate just-acquired knowledge to preexisting knowledge in order to achieve a goal or solve a problem. Creativity, problem solving, and decision making are considered aspects of *HOTS*.

Past studies in foreign language learning reveal that the integration of *HOTS* in the learning process has positive effects on learners' mastery of language concepts and practice of using the target language (Bastos & Ramos, 2017; Nourdad, et al., 2018; Toyoda, 2015). Toyoda (2015) states that the performance of advanced Japanese learners in using the target language is influenced by their *HOTS* level. Meanwhile, Nourdad, et al. (2018) state that using *HOTS* development-oriented learning activities has a significant effect on increasing the ability of students to understand English as a foreign language at university level. Furthermore, Bastos & Ramos (2017) stated that the use of technology-based teaching media which are integrated with *HOTS*-oriented learning activities (e.g. the skills of reasoning and problem solving) helps the oral language production of high school level English learners.

In *German* language learning, *HOTS* call for teachers to be able to design learning activities and assessments that can help learners master *German* and develop their thinking skills. Therefore, teachers not only need to master the content of *German* subjects, but also need to have a good understanding of the *HOTS* concept and *HOTS*-oriented language learning strategies. However, Ardini (2018) shares that although teachers have positive perceptions and attitudes towards *HOTS*-oriented teaching and learning processes, they still face challenges in applying *HOTS* in English language learning.

Ardini's findings are in line with the results of research by Pillay, Singh, Harun, & Singh (2019). The meta-analysis results of their research on articles on the application of *HOTS* in learning underline a number of problems: (1) lack of teachers' knowledge of the *HOTS* concept; (2) lack of resources and teaching materials to support *HOTS* development; and (3) lack of teachers' knowledge of learning plans and strategies to increase learners' *HOTS*. One of the efforts to address these problems is by providing professional development programs for teachers to increase their understanding and competence of *HOTS* and its integration in foreign language learning.

Taking into account the importance of the role of education and training in improving the professional and pedagogical competence of teachers, its practices in learning should receive more attention. Therefore, as the author of this study, I seek to perceive the learning practice of a teacher who has attended the *HOTS*-based Language Teaching Methodology Training. This study is situated in learning *German* as a foreign language at the high school level in Indonesia.

Based on the background above, I formulated four research questions, namely: (1) how is *HOTS*-oriented *German* learning implemented by teachers who have attended the *HOTS*-based Language Teaching Methodology Training?; (2) what are the challenges faced by teachers in the learning practice?; (3) how does teachers' participation in the *HOTS*-based

Language Teaching Methodology Training affect the learning practice?; and (4) what are the students' perceptions of the practice of implementing *HOTS* in *German* language learning?

This study aims to describe the practice of *HOTS*-oriented *German* language learning by teachers who have participated in the *HOTS*-based Language Teaching Methodology Training. In addition, this study has three specific sub-objectives: (1) reveal the challenges faced by teachers in applying *HOTS* in *German* language learning, (2) explain how the participation of teachers in the *HOTS*-based Language Teaching Methodology Training affects their learning practices, and (3) show learners' perceptions of the *HOTS*-oriented *German* learning practice.

This research is expected to provide benefits both theoretically and practically. Theoretically, this research can enrich the literature on the application of *HOTS* in foreign language learning, especially *German*, and contribute to the development of *HOTS*-based learning models. Practically, the results of this study can be a reference for *German* language teachers in designing lessons that not only develop language skills but also students' higher-order thinking skills. In addition, this study can also provide input for teacher training organizers in designing professional development programs that are more effective and relevant to the needs in the field.

RESEARCH METHOD

This study is a descriptive case study. I intend to describe the practice of *HOTS*-oriented *German* language learning by a teacher who has previously participated in the *HOTS*-Based Language Teaching Methodology Training. Furthermore, I also seek to explore other aspects related to the learning practice, which include the challenges faced by teachers in the teaching and learning process and the influence of their participation in education and training on their learning practices in the classroom. This study also describes learners' perspectives on *HOTS*-oriented *German* language learning.

Participants

The subject of this study is a female *German* teacher, from here onward to be known as 'Mrs. S.' Mrs. S is 41 years old and has 21 years of teaching experience as of February 2020. Mrs. S teaches *German* at State High School Y Jakarta. When this study was conducted in the even semester of the 2019/2020 academic year, Mrs. S taught *German* in classes XI Science 3 and Social Science 2. In 2018, Mrs. S participated in the *HOTS*-Based Language Teaching Methodology Training run by Organization X.

Instruments

Data collection techniques used in this study are questionnaires, classroom observation, and interviews. The three techniques were chosen to ensure the collected data come from several different points of view and are in-depth. The triangulation technique in data collection was used as a quality control to confirm research findings.

Questionnaire

There are three types of questionnaires used to collect research data: pre-training, pre-observation, and student questionnaires. The pre-training questionnaire was distributed to all participants who took part in the training by Organization X and was completed by the participants before the training activities began. For this study, I categorized the entries into four relevant aspects: (a) teachers' understanding of *HOTS*, (b) description of planning, implementation, and evaluation of learning, (c) examples of questions of *HOTS*, and (d) learning challenges.

Mrs. S filled in the pre-observation questionnaire before the first observation session. The questionnaire was prepared by modifying the pre-training questionnaire given previously with the addition of several other questions. This questionnaire was used to gather information on the most recent data of Mrs. S and State High School Y Jakarta, as well as the condition of *German* language learning where she teaches. In addition, with the considerable time gap between the training and data collection, this questionnaire was also used to collect information on Mrs. S's perceptions of *HOTS* and her experience in conducting *HOTS*-oriented *German* language learning post-training.

To corroborate Mrs. S's data, I collected data from eight learners in classes XI Science 3 and XI Social Science 2 on Mrs. S's *HOTS*-oriented *German* learning practice. Hosted by Google Form, the questionnaire has 41 questions consisting of closed and open questions. The questions are divided into five parts: section 1 collects learners' personal data and consent statement for taking part in the study; section 2.1 consists of questions related to learners' perceptions of the role of a teacher and learner in *German* language learning; sections 2.2 and 2.3 focus on the implementation of the knowledge dimension and thought process dimension of the Revised Taxonomy in *German* language learning; and section 3 consists of questions on the benefits of learning *German* for learners' lives inside and outside the classroom.

Classroom Observation

Nunan and Bailey (2009) define classroom observation as a procedure of data collection by watching, listening to, and recording the learning process. Adapting the foci of observation by Richard and Farrell (2011), I observed four aspects for this study: (a) the interaction between teacher and learners in the learning process; (b) the language used by learners when providing material, instruction, and questions to students; (c) the use of learning models/strategies and types of learning activities to develop learners' knowledge and skills; and (d) questioning of *HOTS*-oriented development by the teacher. The observed foci were then developed in a field note format adapted from Richard & Farrell (2011), National Council of Educational Research and Training India (2011), and Silver (2011).

Class observations were conducted in XI Science 3 and XI Social Science 2. *German* classes in these two classes took place 3 times per week with a total of four learning hours (*LH*). The duration of one *LH* is 45 minutes. Apart from a one-time trial session, class observation was planned for 15 meetings per class starting from 14 February to 16 April 2020. However, class observations scheduled on 28 February and 6 March 2020 had to be cancelled due to school agenda affected by the COVID-19 pandemic, in particular the Jakarta Provincial Government-sanctioned Large-Scale Social Restrictions (*PSBB*). As a result, the learning process at all levels of education switched to Distance Learning mode (*PJJ*) effective from 17 March 2020. Due to the cancellations on 28 February and 6 March 2020 and the implementation of *PJJ*, only seven successful class observations were conducted in every class.

Interview

I used semi-structured interviews to corroborate information previously collected through the pre-training questionnaire, pre-observation questionnaire, learners' perception questionnaire, and classroom observation. I made use of the dial feature on the WhatsApp application to conduct interviews with Mrs. S. Before conducting the interview, I prepared a question guide, which related to (a) her understanding of *HOTS* after attending training, (b) application of knowledge obtained from the training, (c) implementation of *HOTS*-oriented development learning, (d) challenges in the learning practice, (e) her perception of the *HOTS*-based Language Teaching Methodology Training, and (f) *German* language learning on the *PJJ* scheme.

Meanwhile, interviews with the eight learners were conducted using the text message feature on the WhatsApp application. They were conducted to obtain more in-depth information based on the responses collected from the learners' perception questionnaire. As such, the questions given to each learner were adjusted to their answers in the questionnaire.

To ensure the validity of the findings, the method was triangulated by comparing the results of observations, interviews, and questionnaires, as well as triangulating researchers through collaborative analysis. The findings were also verified through member checking with the participating teachers and analysis of negative cases. The research analytical framework maps three main themes: teacher conceptual change, implementation gaps, and student engagement, which are analyzed in depth with a taxonomic mapping approach based on the revised Bloom Taxonomy. This analysis process not only provides a comprehensive picture of learning practices, but also uncovers the complex dynamics in the application of *HOTS* in the context of foreign language learning.

RESULTH AND DISCUSSION

Research Question 1: How is HOTS-oriented German language learning implemented by teachers who have attended HOTS-based Language Teaching Methodology Training?

During the observation period, two themes became the foci of learning, namely *Essen und Trinken* (Eating and Drinking) and *Kleidung* (Clothing). I analyzed the patterns of German language learning according to the following predetermined observation aspects: (a) the compatibility of the patterns with the target competency and the scope of the materials in the 2013 Curriculum, (b) the patterns of the application of the knowledge dimension and thought process dimension in the Revised Taxonomy, (c) the patterns of the application of the HOTS-oriented learning models and the patterns of questioning strategies in learning.

Essen und Trinken and *Kleidung* learning themes belong to the everyday life category, which is the focus of learning in BC 3.2 and 4.2 as well as 3.4, 4.4.1, and 4.4.2 pairs. In addition, the types of texts used in BC 3.2 and 4.2 can be found in learning theme 1 and theme 2. In theme 1, transactional interaction texts are used in relation to the sub-themes *Essen Bestellen* (ordering food), *Lieblingsessen* (favorite food), and *in der Kantine* (at the canteen). Meanwhile, in theme 2, the text is used in relation to the sub-theme *Abteilungen im Bekleidungsgeschäft* (sections in a clothing store). Apart from transactional interaction texts, descriptive text is also used (BC 3.4, 4.4.1, and 4.4.2). Its discussion takes place in theme 2, especially during the discussion on the sub-themes of *Kleidungsstücke* (types of clothing) and *Farbe* (colours). The subjects of German language leaning in the 2013 Curriculum also mentions the types of literary texts to be used, in which songs are included. Mrs. S uses song as one of the media used to discuss the *Farbe* material in learning theme 2.

Recorded learning activities have shown the direction towards the use of language for communication purposes, which is reflected in the availability of opportunities for learners to use German both orally and in writing, such as in creating and acting out dialogues, describing one's clothes orally and in writing, modifying song lyrics, etc. Language learning skills (reading, listening, writing and speaking) are integrated in the lessons. However, Mrs. S gave practicing listening skills a minimum portion.

With regards to the application of the knowledge dimension of the Revised Taxonomy (Anderson & Krathwohl, 2001), Mrs. S' teaching has applied the three types of knowledge: factual, conceptual, and procedural knowledge. Recorded factual knowledge delivered in Mrs. S' lessons is shown in a variety of taught vocabulary related to learning themes, while conceptual knowledge is shown in the classification of vocabulary according to its category (e.g.: *die Jacke* (jacket), *die Hose* (pants), and *der Rock* (skirt) into the *die Kleidungsstücke* (types of clothing) category; *gelb* (yellow), *grau* (gray), and *braun* (brown) into the *die Farbe* (colour)); vocabulary classifications according to the articles (e.g. *die Hose*, *die Jacke*, *die Bluse* (blouse) into the noun category *die*), and the grammatical rules of each

learning theme (e.g.: the conjunction *aber* (but), *denn* (because), *und* (and), *sondern* (but); changes to the articles for *Dativ* nouns). Mrs. S' learning materials also count in procedural knowledge, such as expressions to request and give information related to learning themes (e.g., explaining favourite food and clothes-shopping) as well as expressions used to describe clothes worn by oneself and others. In my observation, I recorded no inclusion of metacognitive knowledge in Mrs. S' learning materials.

Recalling the categories in the thought process dimension in the Revised Taxonomy (Anderson & Krathwohl, 2001), Mrs. S is noted to have conducted learning activities that facilitate learners to remember, understand, and apply, but have not yet done so for those to analyze, evaluate and create. The following table shows samples of learning activities conducted by Mrs. S for the category of remembering, understanding, and applying in the thought process dimension.

Table 1. Application of Knowledge Dimension in German Language Learning

Category	Learning Activities
(C1) Remember	• Ask students to recite vocabulary related to the learning theme • Guide learners in repeating the previously discussed learning material in relation to the current material
(C2) Understand	• Ask students to make sample sentences of the currently discussed grammar. • Guide learners to classify the types of clothes according to the category of their articles. • Ask learners to summarize the content of the text by using questions. • Guide learners to formulate a conclusion on grammatical rules based on sample sentences discussed. • Guide learners in comparing shopping centers in Indonesia and Germany.
(C3) Apply	• Instruct learners to do exercises in textbooks. • Ask learners to design a dialogue according to the learning theme. • Ask learners to modify song lyrics and sing it in front of the class. • Ask learners to write about their favourite food. • Ask learners to describe the clothes worn by figures in pictures from the internet.

Source: Analysis of observation

Furthermore, I observed that Mrs. S did not apply the three learning models taught in the training in the two classes she taught. My observation and field notes data recorded Mrs. S discuss more of the material and do the exercises from the textbooks then continue with sentences, written texts, and oral dialogue making. When interviewed, Mrs. S stated that her reason for not using the learning models in her learning practice was because she valued the importance of the compatibility of the material and the level of learners' language skills with the learning model in implementing any learning models. Mrs. S believes that text-based learning model is not compatible to her practice because of her learners' lack of German language skills at her school. This contrasts with the results of previous studies, which show that text-based learning model is useful for improving learners' language skills through learning activities that facilitate learners through guidance in analyzing the content, structure and social function of a text, as well as composing texts both collaboratively or independently.

In addition, Mrs. S stated that she had implemented project-based learning model in her classroom multiple times. However, she could not deem the learning material discussed during my classroom observation "fit" to be delivered with said learning model. Therefore, there was no record on my part of Mrs. S' conduct of project-based learning during classroom observation. Furthermore, Mrs. S shared through interviews that the discovery learning model is a "learning model often takes place in

learning.” However, her statement did not corroborate the findings I gathered and took note of from classroom observation. For the application of question strategy, I noted that the frequency of asking open and closed questions was equal in Mrs. S’ two classes. However, she asked more lower-order questions than higher-order questions in both classes. The following table shows examples of questions asked by Mrs. S.

Table 2. HOTS-oriented questions in German language learning

No.	Questions	Thought process stages
1	<i>Worum geht es im dialogue?</i> (What is the content of the dialogue?)	Remember
2	What verb category does the verb <i>essen</i> belong to?	Understand
3	What makes this sentence a <i>Dativ</i> (case)?	Understand
4	<i>Jetzt beschreibt bitte. Was trage ich?</i> (Now let’s describe it. What am I wearing?)	Apply
5	Why do we use <i>wem</i> ? What’s the difference between <i>wer</i> and <i>wen</i> ?	Analyse

Source: Analysis of observation

Research Question 2: What are the challenges faced by learners in this learning practice?

My research findings classify the challenges into four categories: namely the teacher’s, teaching materials, learners’ ones, and the technical implementation of learning. Of the first, Mrs. S admitted that she was not well-prepared for her learning practice. The lack of preparation resulted in less-than-optimal learning. When interviewed, Mrs. S stated that she “... has difficulties (in preparing the lessons), especially when she didn’t have much preparation time.” Her limited preparation time made her feel “lazy” and “rushed,” so she resorted to using “banal” learning methods in class. Mrs. S’ statement confirms the findings from classroom observations.

The next challenge addresses teaching materials. When observed, one of the problems related to the materials and exercises in the mandatory textbooks used in the school, especially those related to themes 1 and 2—which were the focus of learning during my classroom observations, is that they do not reflect the characteristics of HOTS-oriented development learning materials for they still focus on the category of remembering (C1), understanding (C2) and applying (C3). When interviewed, Mrs. S also argued that the materials in the textbooks could not help introducing HOTS to learners. On the pre-observation questionnaire, Mrs. S wrote that she usually used Studio D and Netzwerk books to provide additional teaching materials, both of which were developed by a team of German writers and publishers. However, my observation field notes recorded that Mrs. S almost never used teaching materials beyond the compulsory textbooks.

The next challenges come from the learners. The first challenge is to get learners used to thinking critically, and the next to learners’ mastery of German. Although the learners in this study had been learning German from grade X, they “did not understand German very well.” Therefore, learning could not be fully delivered in German. This further adds yet another obstacle to Mrs. S’ HOTS training to learners.

Another challenge to Mrs. S’ learning practice is ascribed to the technical implementation of learning. Due to her teaching schedule document, Mrs. S teaches as many as four LHs in each class. The four LHs are divided into two LHs (90 minutes) per meeting and two meetings with one LH (45 minutes). Mrs. S considers the division of LH less than ideal and impacting on the flow and effectiveness of the learning process in the classroom. Notably recurring several times, the material had not been fully discussed when the LH ended, so learning activities had to be completed and continued in the next meeting. As a result, the discussion of the material was barely optimal. Yet another challenge regarding

the technical implementation of learning as told by Mrs. S is due to cancellation of learning because of an incidental school agenda.

Research Question 3: How does teachers' participation in the HOTS-based Language Teaching Methodology Training affect the learning practice?

When interviewed, Mrs. S noted that the HOTS-Based Language Teaching Methodology Training contributed positively to her as a teacher. The positive contribution appears in the form of a change in Mrs. S' understanding of HOTS pre- and post-training. Her perception of HOTS development in learning has also changed.

However, Mrs. S believed that her efforts to integrate learning activities that facilitate HOTS development into German language learning are still not optimal. When discussing HOTS development practices in her lessons, Mrs. S stated that she most often directed students to compare Indonesian to German culture, as she believed that it was the simplest way to familiarize HOTS to learners. Learners then practiced analyzing the differences or similarities between the two cultures with regard to learning topic discussed in class.

Mrs. S' statements are in line with the findings from my classroom observations. When discussing the *Abteilungen im Bekleidungsgeschäft* (sections in a clothing shop) material, Mrs. S started the lesson by drawing a floor plan of a clothing store from the textbook (Figure 4.2.) on the blackboard. Based on the floor plan, students then were guided to name the sections in a shopping center in Germany and translate them to Indonesian. Then, Mrs. S asked questions to get learners think critically by comparing the situation of shopping centers in Germany and Indonesia. Following are examples of some of the questions Mrs. S asked in the lesson.

E.g.:

- Why do you think the children's clothing area is on the ground floor?
- Why are men's clothes on the top floor?
- What about the floor plan of a clothing store in Indonesia? Are there any similarities or differences?

Note: Mrs. S asked the above questions in Indonesian language.

Discussing the benefits of participating in the education and training for herself, Mrs. S believed that the illustration of the HOTS-oriented language learning material as she could make use of the learning models to advance her knowledge of HOTS and its application in language learning. Mrs. S stated that there are not many training programs in Indonesia that focus on the application of a concept to practice, though it is what learners "truly need most."

Research Question 4: How do learners' perception of HOTS application practice in German language learning?

When asked about the role of teachers and learners in the learning process, 87.5% of learners felt that Mrs. S was more dominant. However, all learners (100%) admitted that they were still given ample opportunities to actively participate in learning. Furthermore, all eight students (100%) felt that Mrs. S gave them opportunities to ask questions and use German in their learning, both orally and in writing. They used German in assignments and exercises that facilitate their German production, such as by creating sentences or material-appropriate texts, reading out, and giving an individual or group presentation. In addition, learners also can use class phrases in German, such as by saying hello and asking for permission to go to the restroom. When using the target language, learners got feedback or correction from Mrs. S when necessary (100%).

Mrs. S' application of the four types of knowledge (Anderson & Krathwohl, 2001) appears to be more dominant towards teaching factual, conceptual, and procedural knowledge to learners. Meanwhile, metacognitive knowledge has a minimal portion. As on factual knowledge, most learners stated that vocabulary and term-learning is related to each learning topic. Mrs. S would discuss terms that are used

in the textbook material, use songs or mobile applications to enrich learners' vocabulary, and direct learners to provide examples of other terms relevant to the material.

On the topic of conceptual knowledge, learners' opinions differed by classed XI Social Science 2 and XI Science 3. All learners from class XI Science 3 believed that Mrs. S had taught conceptual knowledge by providing examples which were then discussed by the class. Mrs. S oftentimes gave them opportunities to analyse the rules of sentence formation, provide reasons for the results of the analyses, and formulate conclusions independently. However, often learners had difficulty in analyzing, which required Mrs. S to help provide explanation. On the other hand, learners from class XI Social Science 2 stated that Mrs. S provided material, either by writing explanations on the blackboard or giving printouts of her presentation. Afterward, learners were then given exercises.

On the topic of procedural knowledge, most learners stated that Mrs. S explained the context of using certain language expressions through discussion, which then would be followed by giving assignments for the learners to practice using the expressions in a pair or group. Furthermore, on the topic of metacognitive knowledge, Mrs. S shared strategies for remembering articles for German nouns by mentioning the characteristics of nouns that are preceded by a certain article, e.g., day names have the article *der*: *der Montag* (Monday), *der Dienstag* (Tuesday), *der Mittwoch* (Wednesday), *der Donnerstag* (Thursday), *der Freitag* (Friday), *der Samstag* (Saturday) and *der Sonntag* (Sunday). Mrs. S also asked learners to name nouns with their particular article as a strategy for remembering noun articles in German.

With regard to thought process dimension, I consider Mrs. S have trained learners in the skills of analyzing, evaluating and creating, though some learners believe that the allocation is minimal. The eight students shared that Mrs. S used cultural material in training them to analyse. Through forum discussion, Mrs. S guided her learners to analyse the comparison between the culture of their country-of-origin Indonesia and the culture of Germany, in line with the topic of the lesson. This corroborates Mrs. S' statement that in familiarizing HOTS to her learners, she most often led them to compare Indonesian and German culture. In addition, students practiced analyzing the differences or similarities between the two cultures in line with the learning topic. As well, Mrs. S guided learners to analyse sample sentences to draw a conclusion on their formation. Mrs. S too provided sample sentences by using the *Nominativ*, *Akkusativ*, and *Dativ* cases, then directed learners to analyze the differences and usages of the three cases in German.

Most learners acknowledged Mrs. S' efforts to train their ability in evaluating when Mrs. S discussed the answers to the exercises done by students in class. Consequently, learners practiced to check and recheck the correctness of their answers. In addition to evaluating one's own work, Mrs. S also encouraged her learners to be critical of each other's answers and provided opportunities for learners to name correct answers or correct wrong answers and asked them to give reasons. Asking for the reason for an assessment is critical in training learners, so that they are familiar with assessment and problem-solving based on a logical thinking.

It is found from the open-ended questions in the questionnaire that Mrs. S provided learning activities that facilitate her learners to create based on the materials they have discussed. These learning activities include making short videos about learners' families, making prohibition posters and writing poetry. As stated on the German Language Learning Syllabus (MCE, 2017), prohibition and discussion of family (*die Familie*) are taught in class XI in odd semesters, while poetry is one of the materials taught at every level (class X-XII) in line with each learning topic discussed. In contrast, I found no learning activity that facilitated learners to create something new during my observations.

Mrs. S's style of teaching is considered able to motivate and make learners feel confident in using German in class. However, not many felt that Mrs. S' German lesson was able to make them feel motivated and confident to use German in their daily lives outside the classroom.

Table 3. Learners' Perceptions of German Language Learning

Statements	Responses	
	Yes	No
The way the teacher teaches in class makes learners feel confident to use German in class	75%	25%
The way the teacher teaches in class makes learners feel confident to use German outside class	25%	75%
The way the teacher teaches in class makes learners motivated to use German in class	62.5%	37.5%
The way the teacher teaches in class motivates learners to use German outside class	25%	75%

Source: Questionnaire results

Discussion

Data for this study were collected from observations of the Mrs. S' lessons. They spanned seven meetings in two classes: class XI Science 3 and XI Social Science 2 at State High School Y Jakarta. The results were put in conversation with Mrs. S' participation in the HOTS-based Language Teaching Methodology Training. My observations noted that Mrs. S' lessons in both classes showed a similar pattern.

In the seven meetings observed in both classes, Mrs. S did not use the three HOTS-based learning models that were introduced in the training—the project-based learning model, the text-based learning model, and the discovery learning model. When interviewed, Mrs. S believed that she often used project-based learning model and discovery learning model, though it was contradicted by my finding none from the observations. In addition, Mrs. S stated that text-based learning model was not applicably compatible to her class because of the learners' lack of German language skills. This contrasts with the results of a number of previous studies, which show that the text-based learning model is useful for developing learners' language proficiency through learning activities that facilitate them to analyze the content, structure, and social functions of a text as well as construct a text, both collaboratively and independently.

Deriving from the aforementioned statements, I am of the opinion that a teacher's perception influences the selection and application of a learning model in the classroom. This finding agrees with the results of Waluyo's (2019) research that one of the reasons that inhibits teachers from applying the knowledge they gain from training is their own strong perception of a learning method, making it unmanageable for them to change their teaching habits. As well, Mrs. S stated that her lack of time for learning preparation contributed to why she did not put into practice the three learning models. It indicates the importance of good preparation to create quality learning. Teachers also need to consider the compatibility of each learning model with the teaching material, characteristics, and level of language proficiency of learners so that they can make full use of a learning model.

During my observation, Mrs. S focused more on discussing the material and working on the exercises from the textbook. However, after the document research I did to support this study, I found that materials in the textbooks used in German language learning at schools are inadequate to facilitate learning activities which not only train learners' language skills but also help develop their thinking skills. As such, familiarizing HOTS to learners needs the support of the availability of teaching materials able to facilitate it. It agrees with the research result from Pillay, et al. (2019) where the lack of supporting teaching materials and resources for HOTS development is one of the challenges teachers face in developing HOTS-oriented learning. However, teachers are not to rely on a single teaching material and should have the will and skill to develop their own teaching materials that can facilitate the development of learners' language skills and HOTS.

Furthermore, my classroom observation found that the questions asked by Mrs. S and the learning activities done in her class are still inadequate to train learners' thinking skills because they are dominantly residing in the categories of remembering, understanding, and applying, which make up the lower-order thinking skills (LOTS) (Anderson & Krathwohl, 2001). However, on a few occasions, I noted that Mrs. S directed learners to practice their analytical skills through by asking them questions or doing other learning activities. This finding contradicts the results of research by Chen (2016), in which learners' thinking skills were stimulated by higher-order questions and whom later calls for a bigger portion of the questioning for higher-order questions.

Based on this study, I believe that HOTS application in foreign language learning, especially non-English foreign languages, in Indonesia has various challenges. To add to the characteristics of learners who are unfamiliar with active critical thinking to solve problems and innovate, they also do not have sufficient language proficiency. This is in part influenced by non-English foreign languages, such as German, only being available at school beginning from the 10th grade. This is markedly different from Indonesian and English language learning, both of which are available since elementary school and junior high school levels.

Although not written explicitly in the Curriculum document, themes studied by German language learners at upper secondary school level (class X-XII) reflect those in the competency target for beginner level German learners (A1-A2) in the Gemeinsamer Europäischer Referenzrahmen (GER) für Sprachen/CEFR, which includes the identity of oneself and others, family, work, daily life, etc. The application of HOTS in non-English foreign language learning at upper secondary school level or equivalent cannot be likened to the application of HOTS in Indonesian or English language learning.

Reviewing from the field, I believe that meeting the five competency targets for German language subjects as mandated by the 2013 Curriculum requires the maximum effort from teachers and learners, as well as adjustment to the diversity of learners. As seen from the learners in class XI Science 3 and XI Social Science 2 at State High School Y Jakarta, learners' language skills are very low that learners cannot use the target language as the only language of instruction. Consequently, teachers have to use a lot of Indonesian in learning. This contradicts one of the five competency targets in the 2013 Curriculum: the ability to have interpersonal, transactional, and functional communication in the target language. Even when teachers may use Indonesian as a support language of instruction, they should pay attention to the portion of its use and focus on making the target language a priority for learning.

Learners' limited proficiency also challenge the meeting of one of the target competencies in the 2013 Curriculum: the ability to understand texts in German. To understand authentic German literary work, learners must have adequate vocabulary and understand grammatical rules, as well as able to recognize the implicit meaning or socio-cultural context which serve as the background of the time and place in the work.

Learners' limited understanding and usage of German also become a dilemma in HOTS application in learning. It is wise to remember that the main objective of learning is to help learners be skilled in using German to communicate orally and in writing. Therefore, I opine that HOTS should not be the main objective in German language learning, but it should be a means to learners' mastery of German. This is not easy to do, but it is not impossible.

Teachers must provide learning activities that are able to train learner' language skills as well as train their thinking skills. Learning activities to stimulate learners' thinking skills can be structured by making use of various learning models and strategies as described previously. By utilizing text-based learning model, teachers can guide learners to identify the structure of a text, analyze its linguistic elements, understand its social function, assess its quality based on its text structure or based on its coherence and cohesion, and produce a text using their knowledge similar or wholly new in theme or form for an authentic communication.

Learners can also use the discovery learning model. By using this model, learners practice developing a logical and systematic line of thinking in problem-solving. For example, in learning the formation of sentences in the past tense (Perfekt) in German, at the beginning teachers can present a text in various forms (written, spoken, or visual). Then, teachers can ask learners to observe and identify changes in the verbs that appear in the text. After making initial hypotheses, learners are guided to support and verify their arguments and hypotheses by seeking information from various sources such as textbooks and other sources on the internet or from sources provided by the teachers. At the end of the lesson, learners are guided to formulate a conclusion on the rules of sentence formation for Perfekt independently and may be given more trainings to further their understanding of the material. Said activities help learners play an active role in understanding the grammatical rules in German instead of merely listening to the explanation from their teacher.

Another learning model to use project-based learning model. It should be noted that projects assigned to learners must be related to the material and learning themes and ideally are linked to learners' daily life. As a result, learners can practice language skills in authentic contexts and for authentic objectives. Another point deserving more attention by teachers is the provision of language material at the pre-communicative activity phase before learners start working on projects. Learners must master the language material which they will need for the projects. For example, learners must master the expressions used to request information related to one's vacation experience and have adequate vocabulary related to the theme before they are assigned to make infographics on their trips during semester breaks. Not only training their language skills, through project-based learning learners also practice skills such as processing data to produce new products, collaborating, managing time, solving problems, etc. In addition to the three learning models, teachers may also use other learning models that are relevant to the characteristics of their learning subject and context.

In addition to learning models, utilizing question strategies can help teachers train their learners' thinking skills. Ideally, questions should be asked in the target language, but teachers may adjust them to fit the level of learners' proficiency. For beginner learners, teachers should use simple vocabulary. If they have problems understanding the questions, teachers can ask them again in the learners' mother tongue, ask after paraphrasing them, or give learners the opportunity to use a learning aid such as a dictionary to look up the meaning of a word unfamiliar to them. Learners need to be encouraged to answer questions in German to their best abilities. They are allowed to answer in Indonesian as a last resort, but teachers must translate learners' answers to German appropriate to their language skills.

Questions should also be adjusted to the current theme or language material. For example, teachers can train learners' skills in using the conjunction 'denn' (because) by asking questions with the question word 'warum' (why), e.g., warum essen die Deutschen am Abend lieber kalt? (why do Germans prefer eating cold food for dinner?), warum haben wir andere Essengewohnheit als die Deutschen? (why do we have different eating habits from Germans?), warum kaufst du Kleider lieber im Internet? (why do you prefer buying clothes over the internet?), etc. To add to one's question strategies, teachers must also equip themselves with strategies and other learning activities that they can use to develop learners' thinking skills, such as preparing for a debate, creating a different ending for a story, making a short biography for a figure, making illustrative images of a text discussed in class, etc.

No less important in developing HOTS-oriented learning is to provide teaching materials that can facilitate learners to develop their thinking skills. Therefore, teachers need to be proficient in selecting teaching materials that can support the development. The number of exercises that require learners to complete sentences from the choices provided, connect sentences, answer questions by using the content of the text, modify a dialogue based on the choices of information provided, etc. should be minimized in learning. Such exercises are less capable of training learners' thinking skills because they only focus on processing information that is available explicitly. On the contrary, exercises and

materials that make learners practice the ability to interpret, analyze, make a conclusion, and create a new need to be multiplied in learning.

Having discussed all the above, teachers play a big role in accustoming learners to practice their thinking skills. This habit, of course, must also be supported by careful planning by teachers and the willingness to participate by learners. Equally important to remember is that this familiarization requires generous time and consistent efforts.

CONCLUSION

Teachers' having a positive perception of *HOTS* in language learning does not guarantee that they will be able to apply it well in class. Mrs. S's participation in the *HOTS*-based Language Teaching Methodology Training brought about several positive influences on her perception of *HOTS* and its learning practices. However, there are many challenges in its application. The following are the challenges faced by Mrs. S in *HOTS*-oriented *German* language learning: a) The lack of time that Mrs. S has to prepare for learning leads her to use fewer learning materials and activities that can facilitate learners in developing their thinking skills. b) The materials and textbook exercises taught during my class observation do not reflect *HOTS*-oriented learning materials. Other activities conducted in the classroom are still more focused on the application stage of the thinking process (C3). c) Mrs. S faces problems in getting learners to think critically because they are accustomed to passively receiving information from teachers. In addition, her learners' lack of *German* language skills also proves to be a challenge in developing *HOTS*-oriented *German* language learning. d) Mrs. S feels that learning is less effective because of the less-than-ideal number and time distribution of learning hours. Furthermore, incidental school occasions also lead to Mrs. S being less focused on preparing for class, which then causes the non-optimality of the learning process.

Such challenges do not imply that *HOTS* cannot be introduced in *German* language learning at the high school level. Indeed, implementing *HOTS* in non-English foreign language learning is not an easy task, and it requires a great deal of time and effort from teachers. Teachers need to prepare lessons carefully, including choosing teaching materials that can stimulate learners to practice their target language skills as well as thinking skills, and planning learning activities that stimulate learners to practice *HOTS*, taking into account their learners' characteristics and level of language proficiency. Equally important is the realization that teachers' efforts in developing *HOTS*-oriented learning require support from other stakeholders, such as learners' active participation in learning, the provision of quality teaching materials that can facilitate *HOTS*, and learning support facilities provided by schools.

REFERENCES

- Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.
- Ardini, S. N. (2018). Teachers' perception, knowledge and behavior of higher order thinking skills (HOTS). *English Teaching Journal*, 8(2), 20-33.
- Bastos, A., & Ramos, M. A. S. (2017). Higher-order thinking in foreign language learning. *Advances in Social Sciences Research Journal*, 4(5), 90-118. <https://doi.org/10.14738/assrj.45.2788>
- Chen, M.-H. (2016). Theoretical framework for integrating higher-order thinking into L2 speaking. *Theory and Practice in Language Studies*, 6(2), 217-226. <https://doi.org/10.17507/tpls.0602.01>

- Gunawan, I. (2016). *Indonesian Curriculum 2013: Instructional Management, Obstacles Faced by Teachers in Implementation and the Way Forward*. Atlantis Press. [ResearchGateAtlantis Press](#)
- Mariati, P., Khairiyah, U., Suprpto, N., Mariana, N., & Sunanto, S. (2023). Comparative analysis of education curricula between Germany and Indonesia: Content approach and learning methodologies. *Premiere Educandum: Jurnal Pendidikan Dasar dan Pembelajaran*, 13(2), 1–15. <https://doi.org/10.25273/pe.v13i2.16896> [ResearchGate](#)
- Nourdad, N., Masoudi, S., & Rahimali, P. (2018). The effect of higher-order thinking skill instruction on EFL reading ability. *International Journal of Applied Linguistics & English Literature*, 7(3), 231-237.
- Nunan, D., & Bailey, K. M. (2009). *Exploring second language classroom research: A comprehensive guide*. Heinle, Cengage Learning.
- Pillay, L. A. M., Singh, C. K. S., Harun, R. N. S. R., & Singh, T. S. M. (2019). The implementation of higher order thinking skills for teaching and learning. *The Journal of Social Sciences Research*, 5(4), 957-964. <https://doi.org/10.32861/jssr.54.95.964>
- Richards, J. C., & Farrell, T. S. C. (2011). *Practice teaching: A reflective approach*. Cambridge University Press.
- Saksono, L., et al. (2023). Development of German language teaching material based on Indonesian tourism and culture. *KnE Social Sciences*. [Kneopen+2Atlantis Press+2KNE Publishing+2](#)
- Sofiana, N., Mubarak, H., & Yuliasri, I. (2019). English Language Teaching in secondary schools: An analysis of the implementation of Indonesian ELT 2013 Curriculum. *International Journal of Instruction*, 12(1), 1533–1544. <https://doi.org/10.29333/iji.2019.12198a> [ERIC+1ResearchGate+1](#)
- Silver, R. E. (2011). *Classroom observation procedures and fieldnote template* (OER 40/12 RS). National Institute of Education.
- Toyoda, E. (2015). Relationship between higher-order thinking skills and L2 performance. *Electronic Journal of Foreign Language Teaching*, 12(2), 200-218.
- The Impact of Learning Model Based on 2013 Curriculum Towards Contextual Problem Solving Skill. (2019). *EAI Endorsed Transactions on Scalable Information Systems*. teachingenglish.org.uk+8eudl.eu+8ResearchGate+8
- Zabadi, F. (2023). Strengthening the role of Indonesian language in the 2013 Curriculum according to text-based language learning. *Indonesian Journal of Interdisciplinary Research in Science and Technology*, 1(9), 839–852. <https://doi.org/10.55927/marcopolo.v1i9.6594>