

## DEVELOPING HOTS-BASED ENGLISH MATERIALS FOR THE TENTH GRADE STUDENTS IN BANGKA SELATAN

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### **Abstract**

*Based on the students' needs analysis of the two senior high schools in the coastal area of Bangka Island, Bangka Selatan regency, they are: students' need in learning aspects to support English teaching-learning process, students' need activities book regarding HOTS materials, and students' need in having English skills, so developing higher-order thinking skill for English materials product is as a standpoint in crucial necessity. This paper pinpoints the issues of R&D about formulating the HOTS – based English materials for the tenth-grade learners of coastal schools in Bangka Selatan; the materials describe the descriptive texts topics about The Top Tiers, and Attractive Destinations. The students at the tenth grade in two senior high schools (SHSs) in Bangka Selatan as the subjects of this research with the total number of the subject were 65 students. This research design used ADDIE from Lee and Owens (assessment or analysis, design, development, implementation, and evaluation). Questionnaires were distributed to find the data. Then, the collected data were examined using a descriptive quantitative method. The final result revealed that students respond positively to the HOTS-based English materials as well as the product is beneficial and valid to use. It gains students creativity to solve high order thinking skill activities that are arranged in the product tasks.*

**Keywords:** HOTS, English Material, Ten Grade

### **Abstrak**

*Melihat analisis kebutuhan dari dua Sekolah Menengah Atas (SMA) di area pesisir Pulau Bangka, Kabupaten Bangka Selatan yaitu kebutuhan siswa pada aspek pendukung proses belajar mengajar pada pembelajaran bahasa Inggris, kebutuhan siswa pada lembar kerja siswa tentang materi HOTS, dan kebutuhan siswa pada penguasaan keterampilan berbahasa Inggris, sehingga pengembangan produk bahan ajar menjadi hal yang penting. Artikel penelitian ini bertujuan untuk menciptakan produk hasil penelitian pengembangan R and D pada bahan ajar bahasa Inggris berbasis HOTS untuk siswa kelas X SMA di Bangka Selatan. Sampel pada penelitian ini yaitu berjumlah 65 siswa kelas X SMA, di dua sekolah yaitu SMA 1 Toboali dan SMA 2 Toboali. Desain penelitian ini menggunakan model ADDIE, yaitu Analysis, Design, Development, Implementation, dan Evaluation. Pengambilan data dengan penyebaran kuesioner, kemudian diolah secara deskriptif kuantitatif. Hasil akhir diperoleh bahwa produk bahan ajar bahasa Inggris berbasis HOTS ini secara valid dan dapat digunakan untuk media pembelajaran serta memberikan dampak positif bagi respon siswa dan guru, juga dapat membantu melatih siswa untuk berpikir tingkat tinggi melalui latihan-latihan soal yang tersedia pada bahan ajar.*

**Kata Kunci:** HOTS, Bahan Ajar, Bahasa Inggris

## INTRODUCTION

In 2014, South Bangka Regency, Bangka Belitung Province, was said as one of the underdeveloped districts in Indonesia, or in Bahasa Indonesia; *3T (tertinggal, terdapat, terluar)* (LPDP, 2014). By this means, the researchers believed that promoting students with creative and well – developed HOTS English textbook could enhance, sharpen, and uphold their English skills. Based on the observation and pilot interview, the teachers uttered that they did not have sufficient resources to provide students with more complex and creative activities given. They also concluded that giving students materials are based on the syllabi only. However, they believed that the students deserve more knowledgeable sources of learning, and that could be enhanced by a proper book only. Whilst, the books from the government and some from private publishers were the only books they used to support students' English learning. The previous need-analysis study on this research also evidenced that 95% of ten grades students of SMA N 1 and SMA N 2 in Toboali demand a revamp English textbook to ponder. This R&D research enlightened the requisite element of learning a language, that is higher order thinking skill which could boost students' vision studios, imaginativeness, and problem-solving. A Creative thinking skill is created by its natural sources of thought. It is one of the paramount skills required in the 21<sup>st</sup> century. In an attempt to present students with excellent output, outstanding teaching resources must be provided. It is not only

teaching method that needs to be sharpened, but also the media used that is able to stimulate students' analytical and problem – solving skills. Being able to think creatively is the demand that a student must retain in order to achieve not only communication goals, but also learning goals. "Being able to think" means that students should administer the skills that have been developed in new contexts through the learning (Brookhart, 2010). Heong, Y. M., Yunos, J. M., Othman, W., Hassan, R., Kiong, T. T., & Mohamad (2012) believe that thinking skills, particularly creativity, are essential to increase economic growth and prosperity. To reinforce students with the capability of better thinking skills, providing them with such a handy and advantageous tool is vital. A resourceful book as a guidance to transfer and recall lessons is quite significant to be implemented. However, the book used must be provided by innovative instruments to uphold and encourage students to esteem imaginatively.

Generating Higher Order Thinking Skill (HOTS) is one of the best practices to exhilarate students' creativity in learning, likewise learning a language. According to Brookhart (2010), HOTS falls into three categorizations; transfer, critical-thinking, and problem-solving. Transfer depends upon students not only to recall, but also to make logical sense of, and to be able to use what they've studied (Anderson & Krathwohl, 2001, in Brookhart, 2010); Critical thinking is a rational, analytical thinking that focuses on decision-making, what to believe or do (Norris & Ennis, 1989, in Brookhart, 2010);

while problem-solving requires need to remember information, learn with understanding, critically evaluate ideas, formulate creative alternatives, and communicate effectively (Bransford & Stein, 1984, in Brookhart, 2010). To enumerate previous statement, Kennedy, Latham, and Jacinto (2016) analogize the frame of creative thinking; “just as we cannot effectively teach reading without being an active and engaged reader, we can’t teach critical and creative thinking if we are not ourselves critical and creative thinkers (Kennedy et al., 2016).

Developing HOTS – based English textbook would be a valuable and enormous provision to enhance students’ creative and critical thinking, moreover for senior high school students. Senior high school students in Indonesia are required to master the four English skills to achieve the competencies offered by the curriculum. What is written within senior high school students’ English textbook for the tenth graders is that they should be able to comprehend the descriptive, narrative, recount, procedural, and spoof items passages. In addition, they are also obliged to identify meanings and main ideas within the texts. Sundayana (2004) states the development of English textbook must be explicitly and implicitly explained. According to Halili (2015) and Ismail, R. A. M., Arshad, R., & Abas (2017) the success of HOTS implementation depends on the teachers’ skills. While Zohar, Anat & Dori (2003) state that by applying HOTS in teaching English, students’ thinking skills could be broadened without looking at their academic achievements. After implementing the needs

analysis to the students of the two state senior high schools there; SMA N 1 and SMA N 2 Toboali, the authors then assured that developing English materials of HOTS – based could be best implemented in the schools to proliferate their English understandings.

## **METHOD OF RESEARCH**

This research is a research and development that applied Lee and Owens (2004) model. There are five stages developed by Lee and Owens (2004), namely, assessment or analysis, design, development, implementation, and evaluation. So, the procedure carried out in this study was adopted from the Lee and Owens stages. The stages carried out were as follows: 1) Assessment or analysis, consisting of the initial observation step, teacher interviews, distributing needs analysis and pre-test questionnaires, as well as analyzing needs questionnaires that had been distributed; 2) Design, consisting of drafting HOTS-based English teaching materials, and product validation by material experts and media experts; 3) Development, consisting of the testing phase of HOTS-based English teaching materials and the initial revision of HOTS-based English teaching materials; 4) Implementation, namely providing post-test; and the last stage, namely, 5) Evaluation, this stage carried out the final revision of the product. This research took place at SMA N 1 Toboali and SMA N 2 Toboali, which is located in South Bangka Regency, Bangka Belitung Islands Province. While the subjects of this study were students and teachers of SMA N 1 Toboali and SMA N 2

Toboali. The data collection instruments in this study were documentation, questionnaires, and validation. The contents of the validation sheet include an assessment form for experts, as well as an assessment sheet for students. The feasibility of teaching materials uses a Likert scale with alternative answers: very good, good, less and very lacking. Data analysis was carried out using quantitative approaches. Feasibility data of English teaching materials and opinions about the suitability of HOTS-based teaching materials presented in quantitative descriptive data. Expert validation is carried out by means of expert tests relating to the format, content, and language. While the product test was given to senior high school students in grade 10 SMA at SMA N 1 Toboali and SMA N 2 Toboali. Test the effectiveness of learning by looking at the value of the benefits.

## RESEARCH FINDING AND DISCUSSION

The development of this product, English materials, consists of five stages, known as ADDIE: 1) analysis, 2) design, 3) development, 4) implementation, and 5) evaluation. The first step is to conduct the need analysis of the students through delivering the questionnaires. From the finding of the need analysis can be

concluded as some points: 1) there are 51% of the students have not known yet about HOTS knowledge; 2) the students' needs in learning media aspect to support the English teaching-learning process 68% of students need activities books regarding in HOTS materials; 3) there are 72% of students assume that having writing skills is needed; 4) there are 90% of learners feel important to have English language skills. From all the need analysis result, it reveals that new HOTS-based English materials should be produced for the tenth-grade students of senior high school in Bangka Selatan.

The second step is planning the design; the design is developed based on the results or conclusions gathered at the point of the need analysis. The reports and conclusions collected are used as the basis for the design of instructional materials, in the form of HOTS-based English materials. The activities involve mapping the demands of teaching materials, the content of teaching materials, the teaching materials framework, the evaluation methods planning, testing instruments, and the validation of research instruments by experts. From the results, it is the planning design of HOTS-based English materials for the tenth-grade students of Senior High Schools in Bangka Selatan.

Table 1. Planning Design of HOTS-Based English Materials

Parts of the Materials	Content of the Materials
Introduction	1. Title
	2. Acknowledgment
	3. Table of Contents
	4. Learning Objectives
Contents	CHAPTER 1 The Top Tiers

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1. Skill Focus Reading 1

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  2. Skill Focus Reading 2

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  3. Skill Focus Writing 1

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  4. Grammar Focus

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  5. Skill Focus Writing 2

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  6. Grammar Focus

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  7. Lesson Review 1

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CHAPTER 2 Attractive Destinations

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1. Skill Focus Reading

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2. Skill Focus Writing

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3. Grammar Focus

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4. Skill Focus Speaking

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5. Lesson Review 2

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Closing

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References

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The third stage is developing HOTS-based English materials. The focus of this product is the development of instructional English materials and practice questions based on the form of high order thinking skills. The materials chosen in this product is descriptive text for the tenth-grade students of senior high school, and it involves the activities that attract students creative thinking based on the materials in the pattern of high order thinking skill. Some aspects are concerned in this product development 1) the material development is to attract students' reasoning ability and

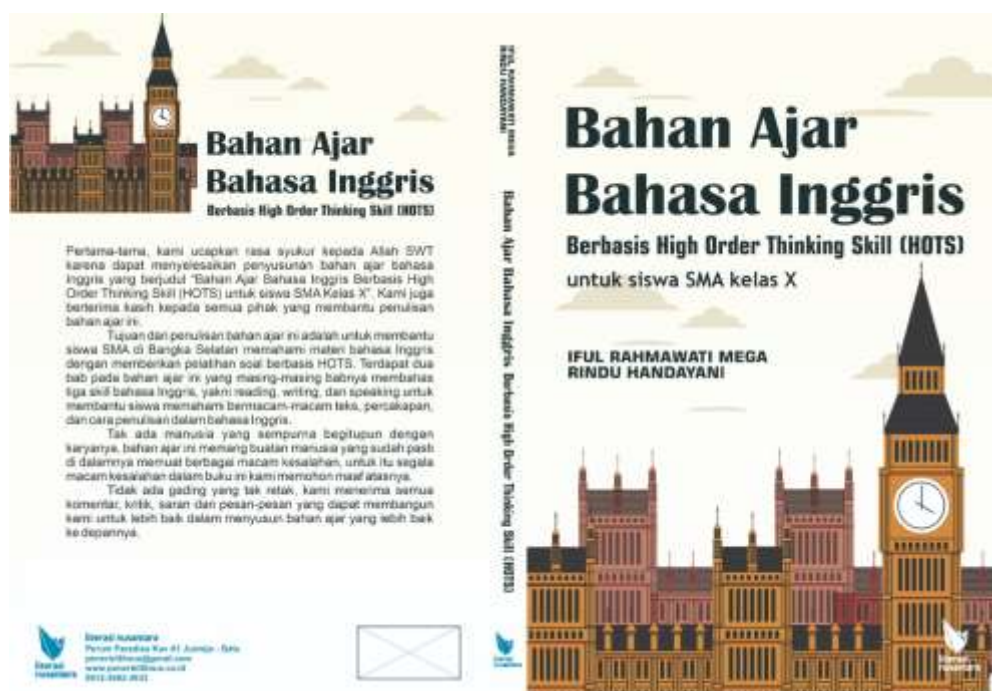
critical thinking; 2) the product development is to guide the students to solve the problems given; 3) the materials development is to stimulate students' creativity in arranging the solution. These aspects become the core in creating product development because these are the keywords of the characteristics of HOTS. After drafting the product planning, it needs to be validated to the experts to know the validity and the advisability. The material design planning must be valid and proper to apply in the teaching and learning process. The result of validity is shown in the table below:

Table 2. The Result of Expert Judgments

ASPECTS	Material Expert	Learning Expert	Media Expert	RESULTS	CRITERIA
Contents Feasibility	100%	80%	100%	93.3%	Good and proper
Language Feasibility	100%	87.5%	100%	95.8%	Good and proper
Media Feasibility	42.86%	75%	100%	72.62%	Good and proper

From the result in table 2 above, it can be concluded that teaching materials have been established in good and proper categories. This means that, based on opinions of material expert, learning expert, and media expert, the teaching material produced are classified as good and proper, in other

words, the teaching materials designed are valid and advisable. Because the results of the validation are valid and good categories, the next stage is to do try out. The teaching materials that do not suitable in the good category will be considered for revising the product before being tested.



Picture 1. Cover Design

The next stage is implementing the product. Because the teaching materials product is valid and proper category then this product will be tested. However, before

the try put conducted, all feedbacks and recommendations by expertise; material expert, learning expert, and media expert, must be used as a guideline for correction.



Improvements and reports obtained during the examination of the instrument have been revised. Since the modifications have been made, HOTS-based English materials have been implemented to the 10<sup>th</sup> grade of senior high school students to carry out the next step of the research.

The last step is the evaluation stage. Evaluation of the English materials development shall be conducted after the development process is fulfilled, including the finalization of the product and product research phases. The evaluation is carried out to enhance English teaching material products. The results of the post-test score, which measures the English language skills

of students, are also taken into consideration in strengthening and refining the products developed by both English teaching materials and HOTS assessment activity. This research also evaluated students' and teachers' responses to the use of HOTS-based English materials. The results of the students' and teacher responses to the implementation of HOTS-based English materials are described as follows:

Table 3. The Results of Students and Teacher Responses

<b>Indicators</b>	<b>Teachers' Responses</b>	<b>Students' Responses</b>	<b>Result</b>	<b>Conclusion</b>
Content Aspect	100%	92.31%	96.1%	Excellent
Learning Aspect	100%	92.31%	96.1%	Excellent
Media Aspect	100%	92.31%	96.1%	Excellent

Based on the table above, it can be described that the application of HOTS-based English materials is a good and proper category, it is an excellent conclusion evaluated on the content aspect, learning aspect, and media aspect. Based on this review, HOTS-based English materials are very feasible, advisable, and proper to be developed or applied in English subject for the tenth grade of senior high school students in Bangka Selatan.

After designing HOTS-based English materials, the learners participate in the English teaching and learning process applying the HOTS-based English materials

module. Besides, HOTS-based activity instruments have also been used to measure students' English language skills. The increase and impact of the use of HOTS-based English teaching materials can be evaluated from the data provided by students before applying HOTS-based English teaching mater and after implementing HOTS-based English teaching materials. The results of the data evaluation of students' English language skills show in the table below:

Table 4. Descriptive Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Pre-test	65	60.6923	10.56089	.92625
Post-test	65	1.5000	.50193	.04402

Table 5. T-Test Measurement

Test Value = 0						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Pre-test	65.525	129	.000	60.69231	58.8597	62.5249
Post-test	34.073	129	.000	1.50000	1.4129	1.5871

From table 4 and table 5 above, it can be concluded that the post-test score is better than the pre-test score. Because of sig. (2-tailed) is 0.00, it means that lower than 0.05 ( $0.00 < 0.05$ ). This measurement is also assessing from the average of descriptive statistics that the post-test is better than the pre-test score. This review presents that HOTS-based English teaching materials raise students' scores effectively.

From all those findings described above, this study has some stages started from conducted the learners' need analysis of the tenth-grade students of senior high schools in Bangka Selatan, followed by designing the concept of HOTS-based English teaching materials, and then developing the product, delivering to the experts to review the validation of the product, conducted the try-out, and then implementing the product, and the last stage is evaluating the product by measuring the pre-test and post-test score of students' English language skills before applying the

product of HOTS-based English teaching materials and after implementing the HOTS-based English materials product. As study conducted by Mega & Handayani (2020) learning English materials with the chosen topics that related to the students' wants will make them more motivated. The HOTS-based English materials will involve HOTS-based activities from remembering (C1) to creating (C6). The new HOTS-based English materials product will create students' awareness and build their experience and logical explanation.

This research development explains the use of HOTS-based teaching materials to strengthen students' critical thinking skills and respond to the assignments creatively, in line with Yulia & Budiharti (2019) in this disruptive period, teachers need more practice on how to inspire pupils to use critical thinking as one of their talents. HOTS-based English teaching materials are structured to allow students to have high-level thinking skills so that with these habits,



students have strong problem-solving skills, can think creatively, and be able to think critically. The produced learning English material creates students' interest and motivation in thinking and investigating.

The results find that the development of HOTS-based English teaching materials enhances students' critical and creative thinking in responses to English language skills. This review is in line with Zohar (in Anisah & Lastuti, 2018) having HOTS, someone would be able to understand (learning), be able to give the correct reasons (reasoning), be able to think creatively (creative thinking), be able to make decisions (making decisions), and be able to solve the problems (problem-solving). This opinion explains that HOTS is a key to developing many competencies, namely to respond correctly, to think creatively, and to be able to answer questions correctly. Other findings also show that the HOTS-based activities can increase students' English language skills, it supports by the previous study from Samelian (in Indriyana & Kuswando, 2019) states that higher-order questions and critical thinking can enhance students' understanding and support high-level thinking students to develop their reading comprehension. It reveals that HOTS-based activity supports the enhancement of students' English language skills. The generated media encourages students to conduct additional research on learning, as well as give opportunities for students to communicate with one another and develop high-level thinking abilities (Fanani & Kusmaharti, 2018). In addition Wibawa & Agustina (2019) the middle class is faster in

assimilating various forms of information, creative thinking in addressing a problem utilizing the knowledge they have, and making judgments in difficult situations as a result of using HOTS learning (kids' capacity to think critically at school). All of this necessitates a shift in the teacher's teaching style to accommodate the changes, especially if the goal is to generate skilled and critical learners (Daud, 2017).

During conducted the research, the implementation of HOTS-based English teaching materials had a significant effect on students learning activities. Teaching and learning processe, students' and teachers' interaction become more productive. Some positive effects are 1) discussion forum among the students improves; 2) students are more curious about the questions given; 3) students can solve the questions correctly and briefly. All these positives influences have direct impacts on increasing the students' critical thinking skills which also have an impact on students' English language learning skills outcomes.

## CONCLUSION

Based on the research results and data analysis, the conclusion of this study is the development of HOTS-based English teaching materials products with the ADDIE stages can improve students' creativity and critical thinking in the form of students' English language skills. Based on the expert reviews reveal that a HOTS-based English material is valid and proper to be implemented to the tenth-grade students of senior high schools in Bangka Selatan. The students respond positively to the HOTS-based English materials as well as the product is beneficial and valid to use. It

gains students' creativity and critical thinking to solve high order thinking skill activities that are arranged in the product tasks. Therefore, the HOTS-based English teaching materials product can be applied by teachers with the consideration of the situation, condition, and characters of the students. Because this HOTS-based activity is proven to be effective in enhancing students' critical thinking and creativity in solving the problem and questions related to English skills in English subjects.

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### REFERENCES

- Anisah, & Lastuti, S. (2018). Pengembangan Bahan Ajar berbasis HOTS untuk Meningkatkan Kemampuan Pemecahan Masalah Matematis Mahasiswa. *KREANO Jurnal Matematika Kreatif-Inovatif*, 9(2), 191–197. <https://doi.org/http://dx.doi.org/10.15294/kreano.v9i2.16341>
- Brookhart, S. M. (2010). How to Asses Hogher-Order Thinking Skill in Your Classroom. In *Book*. ASCD. <https://doi.org/10.1177/002205741808801819>
- Daud, N. M. (2017). Integrating Hots Into Language Classes in the 21 St. *The First Education and Language International Conference Proceedings Center for International Language Development of Unissula*, 29–36.
- Fanani, A., & Kusmaharti, D. (2018). Pengembangan Pembelajaran Berbasis HOTS (Higher Order Thinking Skill) di Sekolah Dasar Kelas V. *JPD: Jurnal Pendidikan Dasar*, 1, 1–11. <https://doi.org/doi.org/10.21009/JPD.091.01>
- Halili, S. H. (2015). Effective Teaching of Higher-Order Thinking (HOT) in Education. *The Online Journal of Distance Education and E-Learning*, 3(2), 41–47.
- Heong, Y. M., Yunos, J. M., Othman, W., Hassan, R., Kiong, T. T., & Mohamad, M. M. (2012). The Needs Analysis of Learning Higher Order Thinking Skills for Generating Ideas. *Procedia - Social and Behavioral Sciences*, 59, 197–203.
- Indriyana, B. S., & Kuswando, P. (2019). Developing Students' Higher Order Thinking Skills (HOTS) in Reading: English Teachers' Strategies in Selected Junior High Schools. *JET (Journal of English Teaching)*, 5(3). <https://doi.org/10.33541/jet.v5i3.1313>
- Ismail, R. A. M., Arshad, R., & Abas, Z. (2017). Teacher efficacy: Are they effective in implementing HOTS? *Medwell Journals*, 12(7), 1136–1142.
- Kennedy, I. G., Latham, G., & Jacinto, H. (2016). *Education Skills for 21st Century Teachers*. <https://doi.org/10.1007/978-3-319-22608-8>
- LPDP. (2014). *Daftar Daerah Tertinggal*. <http://faperta.ugm.ac.id/2014/site/pasca sarjana/files/DAFTAR-DAERAH-TERTINGGAL-2014.pdf>
- Mega, I. R., & Handayani, R. (2020). *Need Analysis of Hots-Based English Materials Development for the Ten Grade Learners of Coastal School in Bangka Selatan*. 477(Iccd), 329–333.

<https://doi.org/10.2991/assehr.k.201017.073>

- Sundayana, W. (2004). *Pedoman Umum Pembelajaran Bahasa Inggris di SMA*. [http://file.upi.edu/Direktori/FPBS/JUR.\\_PEND.\\_BAHASA\\_INGGRIS/195802081986011-WACHYU\\_SUNDAYANA/ESP\\_Material\\_Development/Pedoman\\_Guru\\_ING\\_SMA\\_05\\_Bag\\_I.pdf](http://file.upi.edu/Direktori/FPBS/JUR._PEND._BAHASA_INGGRIS/195802081986011-WACHYU_SUNDAYANA/ESP_Material_Development/Pedoman_Guru_ING_SMA_05_Bag_I.pdf)
- Wibawa, R. P., & Agustina, D. R. (2019). Peran Pendidikan Berbasis Higher Order Thinking Skills (Hots) Pada Tingkat Sekolah Menengah Pertama Di Era Society 5.0 Sebagai Penentu Kemajuan Bangsa Indonesia. *EQUILIBRIUM Jurnal Ilmiah Ekonomi Dan Pembelajarannya*, 7(2), 137–141.
- Yulia, Y., & Budiharti, F. R. (2019). HOTS in teacher classroom interaction: A case study. *EduLite: Journal of English Education, Literature and Culture*, 4(2), 132. <https://doi.org/10.30659/e.4.2.132-141>
- Zohar, Anat & Dori, Y. J. (2003). Higher Order Thinking Skills and Low Achieving Students: Are They Mutually Exclusive? *Journal of the Learning Sciences*, 12(2), 145–181.