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HOTS-Based Worksheet in English Learning Activity for Eight Grade Students of Junior High School

I Komang Kenny Tirtayasa[1*], Putu Kerti Nitiasih[2], Luh Gd Rahayu Budiarta[3]
[1,2,3] Ganesha University of Education, Singaraja, Indonesia

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ABSTRAK

Guru harus dapat mengembangkan kegiatan pembelajaran yang menawarkan pembelajaran bermakna kepada siswa dan meningkatkan kemampuan bahasa Inggris siswa. Higher Order Thinking Skills atau HOTS merupakan solusi terkini untuk mendukung pengembangan kemampuan siswa. Penelitian ini bertujuan untuk mengembangkan LKS berupa buku pelengkap dengan mengedepankan HOTS bagi siswa kelas VIII untuk melaksanakan kurikulum 2013. Buku tersebut untuk siswa kelas VIII semester II SMP. Penelitian ini menggunakan metode D&D (Design and Development research) dengan empat tahapan yaitu Analisis, Perancangan, Pengembangan, dan Evaluasi. Peneliti menggunakan random sampling dan partisipan dalam penelitian ini adalah kelas delapan SMP. Dalam pengumpulan data, peneliti melakukan observasi proses pembelajaran, wawancara guru, analisis dokumen, dan expert judgement. Hasil penelitian menemukan bahwa LKS Berbasis HOTS dapat digunakan sebagai pedoman untuk membimbing dan mendidik siswa dalam membaca buku. Penggunaan buku ini membuat pembelajaran lebih menyenangkan, dan menarik secara visual bagi siswa. Lembar kerja ini juga dapat membantu siswa meningkatkan kemampuan bahasa Inggris dan kemampuan berpikir kritis mereka. Temuan evaluasi ahli menunjukkan bahwa produk ini masuk dalam kategori media "sangat baik". Produk ini diharapkan dapat memberikan manfaat baik bagi siswa maupun guru dalam rangka meningkatkan kualitas proses belajar mengajar bahasa Inggris.

ABSTRACT

Teachers should be able to develop learning activities that offer meaningful learning to students and improve students' English skills. Higher Order Thinking Skills, or HOTS, are the current solution to support the development of student's abilities. This study has the purpose to develop a students' worksheet in a form of a supplementary book by promoting HOTS for eighth-grade students to implement curriculum 2013. The book is for the eighth grade in the second semester of junior high school students. This research implements D&D (Design and Development research) methods with four steps which are Analysis, Design, Development, and Evaluation. The researcher employed random sampling and participants in this study were eighth-grade Junior High School students. In collecting the data, the researcher conducted learning process observation, teacher interview, document analysis, and expert judgment. The result of the study found that the HOTS-Based Worksheet can use as a guide for leading and educating students when reading books. The use of this book makes learning more fun, interesting, and visually appealing for students. This worksheet can also help students improve their English language skills and critical thinking skills. The expert evaluation findings show that this product falls into the category of "very good" media. It is hoped that the product will be giving advantages for both students and teachers to improve the quality of English teaching and learning process.

1. INTRODUCTION

Curriculum 2013 (also known as K13) is now being used in Indonesia as a means of adapting to the present period (Ayu & Indrawati, 2019; Lavania & Mohamad Nor, 2021). Learning is also on the rise as we enter the twenty-first century. For example, in the 2013 curriculum, critical thinking and problem solving as well as creativity and innovation are highlighted (Lee, 2016; Rahman, 2019; Sari et al., 2019). Curriculum 2013 should be able to shift school culture away from a teacher-centric focus toward one that puts the needs of students first (Arif, 2015; Marshel & Ratnawulan, 2020). Students need to be taught critical thinking and higher-order thinking abilities to achieve this learning activity (Anisa, 2017; Hidayatullah et al., 2021; Pursitasari et al., 2020). HOTS are a higher level of thinking created by pupils via the use of numerous concepts and methodologies (Arifin & Retnawati, 2017; Takko et al., 2020). Bloom's Taxonomy-based thinking model includes HOTS as well. From the lowest to the greatest level, there are six taxonomically based stages of learning. Knowledge, understanding, application, analysis, synthesis, and assessment are all parts of the learning process (Atiullah et al., 2019; Johansson, 2020). Redesigned taxonomy of student learning levels was developed in response to a shift in

** Corresponding Author: I Komang Kenny Tirtayasa: kenny77@gmail.com*

emphasis toward more effective learning and evaluation goals (Mrah, 2017). There are two types of thinking skills in the new version: LOTS, which include cognitive levels C1, C2, and C3; and HOTS, which include cognitive levels C4 through C6 (Dewi & Ichsan, 1970; Thamrin et al., 2019; Tyas et al., 2019). The goal of HOTS is to raise the cognitive thinking abilities of pupils. This should encourage pupils to think outside the box and develop new ideas (Margana & Widyantoro, 2017; Yuliati & Lestari, 2018).

Since the teacher is a facilitator and guides the pupils, they play a crucial role in applying HOTS in learning activities (Muppudathi et al., 2014; Sudirman et al., 2021; Suntani et al., 2021). When it comes to producing student learning materials, higher-order thinking skills (HOTS) is a very important role (Thamrin et al., 2019). Understanding and applying what they've learned are the primary goals of educational activities for pupils. It is the responsibility of the instructor to engage students' critical thinking to solve difficulties (Elia et al., 2007; Martin et al., 2017). HOTS abilities enable students to think more critically, reflectively, met cognitively, and also creatively (Hidayah et al., 2021; Suryawati et al., 2018). Students also can use information, skills, and values in speculating and problem-solving (Bechter & Swierczek, 2017; Holland & Ulrich, 2016; Rudibyani et al., 2020). Students who have previously mastered HOTS abilities may keep up with the rapid advancements in technology and information in the present day by maintaining their skills in information collection and analysis (Maharani, 2019; Rapih & Sutaryadi, 2018). Hots skills may be used by Junior High School Students notably eighth graders following the development of the four fundamental English language skills.

It is in line with previous research that reveals a curriculum that is student-centered is an excellent choice (Sani, 2019). The instructor must first know and understand the HOTS for pupils to understand them. Teachers must be trained by the government for HOTS to be used effectively with pupils. Teachers need to keep in mind that there are four responsibilities that they must play to build HOTS in students' learning activities. It is also supported by other previous studies that state that "Teaching for thinking" refers to the process by which the instructor sets up the classroom so that pupils may engage in critical thinking (Hong et al., 2021). The 'teaching of thinking' job is to ask pupils questions that get them to apply what they've learned to the current scenario. The third function is 'teaching with thinking,' which entails engaging students in debate or asking them to go further into their thoughts about the material being covered. In the fourth function, 'teaching about thinking', the instructor helps students become more aware of the process of developing their critical thinking abilities. As a result of these responsibilities, it should be easier for teachers to use HOTS effectively with students and the learning activity. Therefore, teachers must be able to develop learning activities that offer meaningful learning to students and improve students' English language skills to find acceptable ways to impart these aspects to students during the learning process. Higher Order Thinking Skills, or HOTS, are becoming increasingly important in today's world, and this assignment should reflect that. However, due to the lack of instructor knowledge, this condition continues to provide many challenges in creating learning activities using HOTS. Therefore, researchers are interested in developing an extra English book containing HOTS for junior high school students, especially second-semester eighth-grade students at SMP Negeri 3 Singaraja.

2. METHOD

This study used the D&D method. Applying research methodologies design and development in academia will result in specific goods and technologies (Rejab et al., 2018). The ADDE Model is also being used by the researcher as a basis for creating an English-language companion book for HOTS. Analyze, Design, Develop, and Evaluate are the first four stages of the ADDE Model. Based on preliminary observations, SMP Negeri 3 Singaraja is a good candidate for HOTS-based learning activities aimed at the school's eighth graders and their instructors. Students in SMP Negeri 3 Singaraja's eighth-grade English class are the focus of this study. The researcher will employ random sampling to identify the subject because he or she wants to find relevant information regarding the study issue. Data Collection for this study includes an interview, document analysis, and expert judgment. Data were evaluated statistically and subjectively in this study. From a syllabus analysis, an observation sheet, and a checklist were collected qualitative data. Data on the development of English literacy-based activities, and the activities themselves, comprised qualitative data. The quantitative data was acquired from the assessment sheet and the test. Ex-experts' evaluations of the quality of the finished product were used to generate the quantitative findings (Nurkancana & Sunartana, 1992).

3. RESULT AND DISCUSSION

Result

The result of this research was a worksheet of HOTS-based English learning activities for the second semester of the 8th-grade junior high school students with seven topics being discussed in it.

Analysis

After interviewing the teacher of English. The researcher discovered the difficulties and barriers faced by the English instructor. Despite the English teacher's understanding of HOTS-based learning, the researcher observed problems in applying it to the teacher's teaching materials. The number of activity books that may be utilized as teaching aids was strictly regulated at the school. The kids' lack of interest in studying English was also considered to be a problem. The single book utilized by the teacher was not based on the syllabus, and the teacher only used one book. Student disinterest in learning English was also a problem for the teacher, who found that the absence of media and the book's lack of visualizations made it difficult for pupils to grasp the material. Students' motivation to learn was negatively impacted by several barriers.

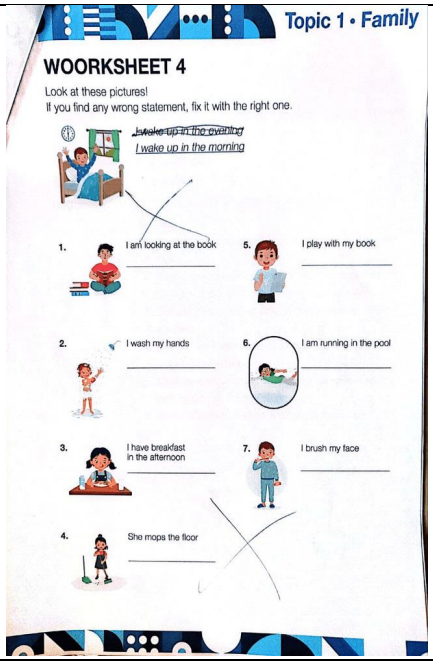
Design

A blueprint was drawn up by the researcher following an analysis of the learning book and the curriculum for eighth-grade pupils in the second semester. Bloom's Taxonomy is referenced in the blueprint's design, depending on the analysis that has been carried out. The blueprint is broken down into multiple sections, including one for each of the book's topics, language functions, language expressions, and thinking skills. A topic is a subject that may be broken down into several subtopics. Using the syllabus from the second semester of eighth grade, language function and expression are taught. The degree of thinking skill that is employed in each of the tasks is called the HOTS level. There is a detailed description of each exercise, as well as step-by-step directions, in the book. When constructing the blueprint, the researcher and supervisor examined the blueprint. As a result, this design has the potential to generate beneficial actions.

Development

Create learning activities based on blueprints as a result of working with activity blueprints and designs, the researcher came up with an activity description. To make the book more appealing, entertaining, and simpler for students to understand, the exercises were developed to include visual pictures. To write and arrange the activities and visual images, the researcher utilized editing applications such as Adobe Photoshop and Adobe Illustration. Freepik, a website for graphic illustration resources, was used to obtain the artwork, which was purchased using a Premium Access license. A book was created from the sum of all the details and events. After consulting the book with the supervisor, the researcher was able to have the book's errors corrected, allowing it to be used and published.

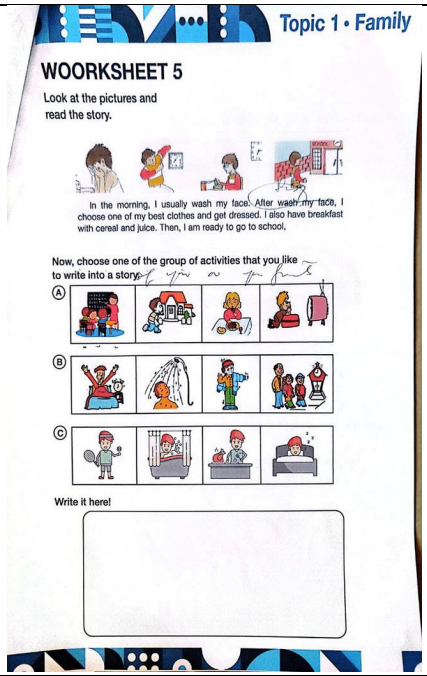
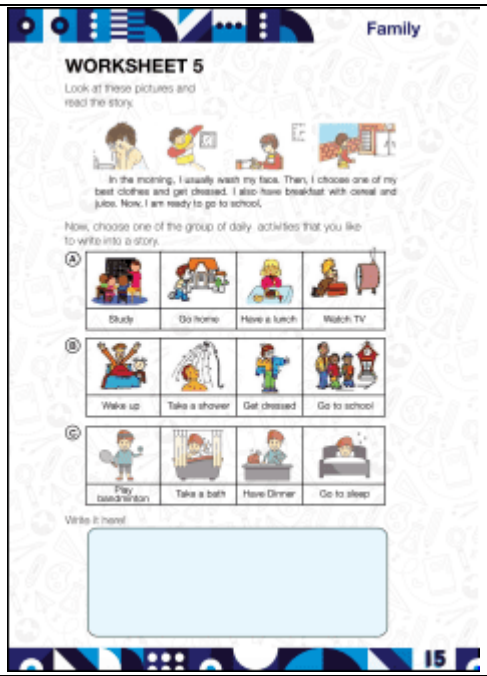
Table 1. Revision 1

Before Revision	After Revision
	

Based on Table 1 the tasks that the researcher came up with the first time around. This activity was deemed inappropriate by the supervisor due to the dearth of information provided in the questions. The supervisor

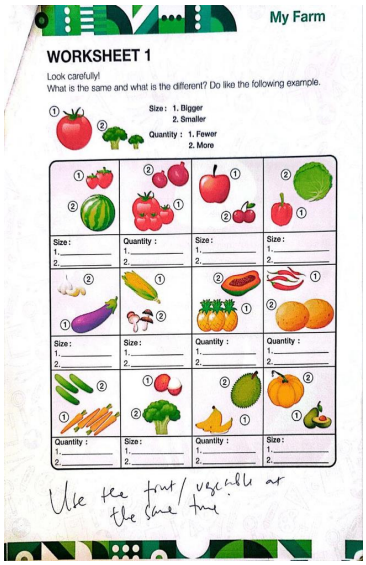
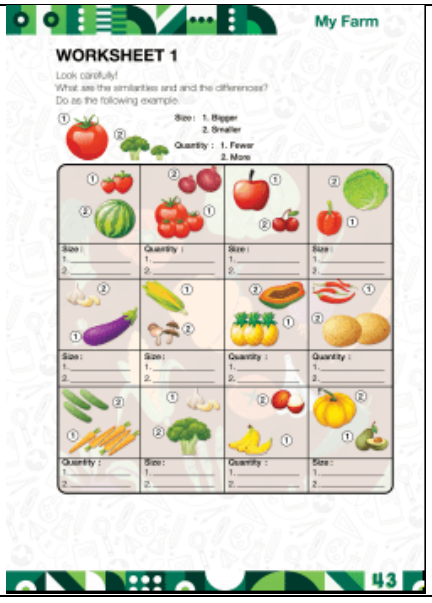
proposed that the pupils be able to evaluate the photographs and locate the answers by using a pair of pictures instead of just one for each question.

Table 2. Revision 2

Before Revision	After Revision
	

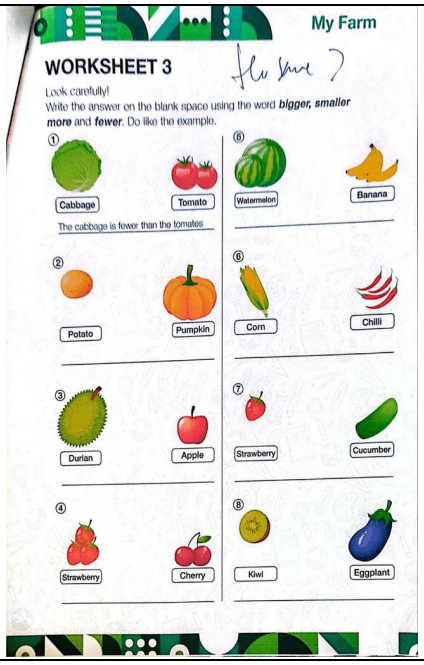
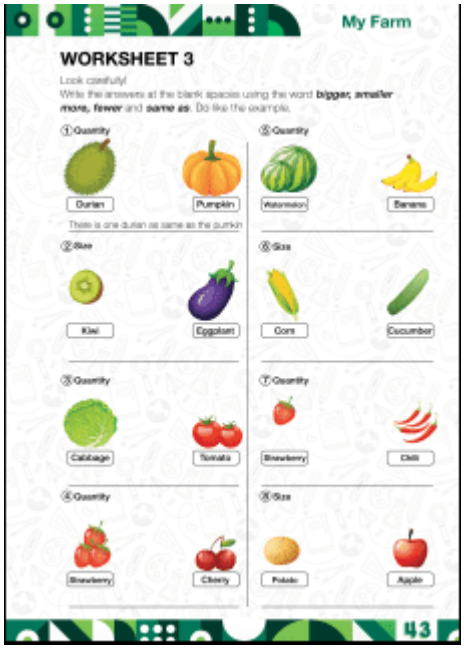
Based on Table 2 supervisor discovered that the illustrative visuals in the following activity design were too tiny for the children to see. The instructor advised resizing the image so that pupils could better comprehend it. The supervisor also proposed that pupils be able to understand each image by using basic verbs.

Table 3. Revision 3

Before Revision	After Revision
	

Based on Table 3 there were multiple grammatical problems in the instructions for the task in the other design. Another suggestion made by the supervisor was to vary the graphic for each pair of photographs by just changing the size and number.

Table 4. Revision **4**

Before Revision	After Revision
	

Based on Table 4 the supervisor discovered a grammatical error in the instructions for the following activity design. According to a recommendation from the researcher's supervisor, researchers should shift from comparing simply to comparing and comparing.

Table 5. Revision 5

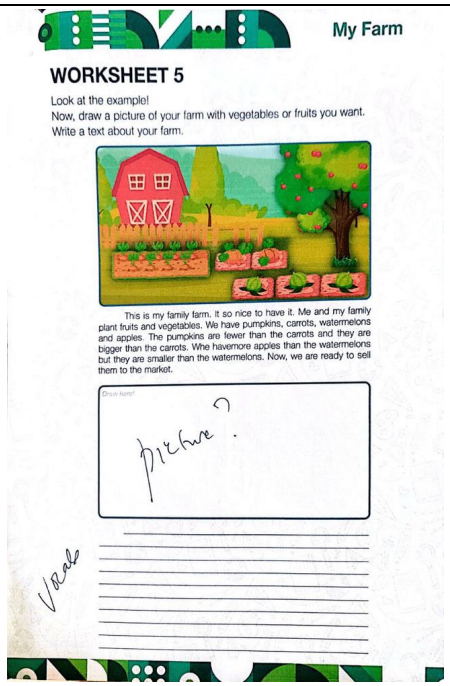
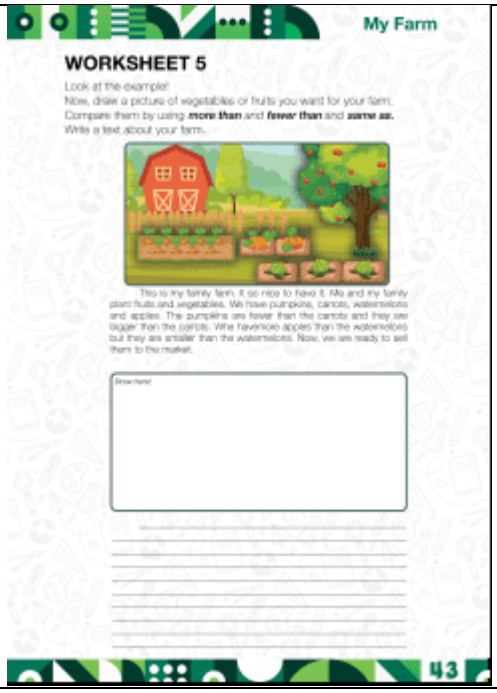
Before Revision	After Revision
	

Table 5 shows the final change to the activity's design. The activity's supervisor noticed a lack of clarity in the instructions. For the exercises, the supervisor advised using vocabulary examples.

Evaluation

The product assessment sheet was submitted to three professionals in the field of education for review. Based on this product assessment sheet, a panel of professional judges assessed the quality of the HOTS English extra book. Competence in HOTS-based English activities was a requirement for the selection of the panel of judges. Using criteria from Permendikbud Nomor 8 Tahun 2016, we created an evaluation sheet. Each of the four components of the product assessment sheet is composed of several items. Using the value of Mi and Sdi discovered by the researcher, a product's criterion may be determined. Worksheets classified as "excellent" "good" "average" or "poor" were included in the calculation as separate categories. It was explained in detail in Table 6.

Table 6. The Categories in Rating the Worksheet

Score	Criteria
$X \geq 171$	Excellent Worksheet
$133 \leq X < 171$	Good Worksheet
$95 \leq X < 133$	Average Worksheet
$57 \leq X < 95$	Below Average Worksheet
$X < 57$	Poor Worksheet

Based on Table 6 shows the results of the expert judgment rubric, the researcher found that the total score given by the first judge was 184, the second judge gave 186, and the third judge gave 187. It can be said that each judge's score is categorized as "Excellent Worksheet".

Discussions

In the twenty-first century, education places a great value on the development of abilities such as teamwork, communication, critical thinking, problem-solving, and creativity. The 2013 Curriculum in Indonesia aims to master these abilities in students. Students must be habituated to studying that need strong critical thinking or Higher Order Thinking Skills to meet their educational goals in the twenty-first century. HOTS are a higher level of thinking created by pupils via the use of numerous concepts and methodologies (Hadi et al., 2018; Putri & Sulistyaningrum, 2021). HOTS intends to raise students' cognitive thinking abilities to the next level (Yuliati & Lestari, 2018). This should encourage pupils to think outside the box and develop new ideas (Margana & Widyantoro, 2017). Teachers, as facilitators and guides, may help students enhance their critical thinking by facilitating and guiding them in the development of HOTS in student learning activities (Siahaan et al., 2021; Sucipto & Cahyo, 2019). When it comes to helping students improve their critical thinking skills, teachers must consider four roles: (1) teaching for thinking, (2) teaching about thinking, (3) teaching with thinking, and (4) teaching about thinking (Muppudathi et al., 2014; Sudirman et al., 2021; Webb, 2009). Because HOTS plays a significant role in the design and development of activities and learning materials, teachers' understanding of HOTS and how it is appropriate for students may help achieve HOTS learning objectives (Thamrin et al., 2019). The accomplishment of the HOTS learning objectives is also supported by the use of textbooks (Ayu & Indrawati, 2019). Teachers and students use textbooks as a guide to help them comprehend a topic or content in a single direction.

It is in line with the previous study that studies the use of textbooks based on HOTS to guide students through HOTS-related activities (Sofyan, 2019). The result of the study found that a textbook based on HOTS also assists students since it includes exercises that are easy for students to grasp. It is reinforced by another researcher that employed blooming taxonomy in building HOTS-based textbooks (Mrah, 2017). It was revealed that stages of learning were the improved version of the original taxonomy, owing to the focus on better learning and assessment objectives in students' learning. New categories have been added: Low Order Thinking Skill (LOTS) and High Order Thinking Skill (HOTS), the former of which includes cognitive levels C1, C2, and C3, and the latter of which includes cognitive levels C4, C5, and C6. Creative thinking, problem-solving, and higher-order thinking abilities may all be improved by using this HOTS book offering. Since this HOTS book may be utilized for both online and offline instruction, students have the flexibility to complete their homework assignments whenever and wherever they want. It is strongly recommended that teachers use HOTS books as a teaching tool. Because of the numerous appealing visual representations, it can assist teachers in inspiring pupils to apply their creativity in grasping the content. The learning activity will be more appealing as a result. Besides that, this study's findings may be utilized to aid prospective instructors in producing worksheets, particularly those that involve higher-order thinking abilities to help students learn. And it is recommended that other researchers continue this study by developing the prototype into a product that may be used by instructors for their professional growth, as this item is only a prototype. Teachers and others who are in need may benefit from this because of the positive impact it has on their professional growth.

4. CONCLUSION

The HOTS-based English Supplementary book was produced for eighth-grade second-semester students in Junior High School, particularly in Buleleng District. Instructions for the instructor were also included in this offering as a guide for leading and educating pupils while reading the book. Use this HOTS worksheet book to make learning more enjoyable, intriguing, and visually appealing for your students. This worksheet book can also help pupils improve their English language abilities and their ability to think critically. The findings of expert evaluations show that this product falls into the "very good" media category.

5. REFERENCES

Anisa, A. (2017). Meningkatkan Keterampilan Berpikir Kritis Peserta Didik Melalui Pembelajaran IPA Berbasis Potensi Lokal Jepara. *Jurnal Inovasi Pendidikan IPA*, *3*(1), 1–11. https://doi.org/10.21831/jipi.v3i1.8607.

Arif, N. (2015). Removing English as a compulsory subject from primary schools on the 2013 curriculum based on teachers'. *International Journal of Scientific and Research Publications*, *5*(8), 117–121. https://repository.unja.ac.id/1858/.

Arifin, Z., & Retnawati, H. (2017). Pengembangan instrumen pengukur higher order thinking skills matematika siswa SMA kelas X. *PYTHAGORAS: Jurnal Pendidikan Matematika*, *12*(1), 98. https://doi.org/10.21831/pg.v12i1.14058.

Atiullah, K., Fitriati, W., & Rukmini, D. (2019). English Education Journal Using Revised Bloom's Taxonomy to Evaluate Higher Order Thinking Skills (Hots) in Reading Comprehension Questions of English Textbook for Year X of High School. *English Education Journal*, *4*(9), 428–436. http://journal.unnes.ac.id/sju/index.php/eej.

Ayu, M., & Indrawati, R. (2019). EFL Textbook Evaluation: The Analysis of Tasks Presented in English Textbook. *Teknosastik*, *16*(1), 21. https://doi.org/10.33365/ts.v16i1.87.

Bechter, C., & Swierczek, F. W. (2017). Digital storytelling in a flipped classroom for effective learning. *Education Sciences*, *7*(2). https://doi.org/10.3390/educsci7020061.

Dewi, A. K., & Ichsan, I. Z. (1970). Increasing Junior High School Student Higher Order Thinking Skills (HOTS) Using Q&A Methods in Genetics Topic. *Proceeding of Biology Education*, *2*(1), 84–91. https://doi.org/10.21009/pbe.2-1.11.

Elia, I., Panaoura, A., & Eracleous, A. (2007). Relations between secondary pupils' conceptions about functions and problem solving in different representations. *International Journal of Science and Mathematics Education*, *5*(3), 533–556. https://doi.org/10.1007/s10763-006-9054-7.

Hadi, S., Retnawati, H., Munadi, S., Apino, E., & Wulandari, N. F. (2018). The Difficulties of High School Students in Solving Higher-Order Thinking Skills Problems. *Problems of Education in the 21st Century*, *76*(4), 520–532. https://doi.org/10.33225/pec/18.76.520.

Hidayah, I. R., Kusmayadi, T. A., & Fitriana, L. (2021). Minimum Competency Assessment (AKM): An Effort To Photograph Numeracy. *Journal of Mathematics and Mathematics Education*, *11*(1), 14–20. https://doi.org/10.20961/jmme.v11i1.52742.

Hidayatullah, Z., Wilujeng, I., Nurhasanah, N., Gusemanto, T. G., & Makhrus, M. (2021). Synthesis of the 21st Century Skills (4C) Based Physics Education Research In Indonesia. *JIPF (Jurnal Ilmu Pendidikan Fisika)*, *6*(1), 88. https://doi.org/10.26737/jipf.v6i1.1889.

Holland, C., & Ulrich, D. (2016). Critical thinking cards: An innovative teaching strategy to bridge classroom knowledge with clinical decision making. *Teaching and Learning in Nursing*, *11*(3), 108–112. https://doi.org/10.1016/J.TELN.2016.01.005.

Hong, J. C., Hsiao, H. S., Chen, P. H., Lu, C. C., Tai, K. H., & Tsai, C. R. (2021). Critical attitude and ability associated with students' self-confidence and attitude toward "predict-observe-explain" online science inquiry learning. *Computers and Education*, *166*(February), 104172. https://doi.org/10.1016/j.compedu.2021.104172.

Johansson, E. (2020). The Assessment of Higher-order Thinking Skills in Online EFL Courses: A Quantitative Content Analysis. *NJES Nordic Journal of English Studies*, *19*(1), 224–256. https://doi.org/10.35360/njes.519.

Lavania, M., & Mohamad Nor, F. (2021). Factors influencing the implementation of differentiated instruction in English language instruction in rural and urban secondary schools of Johor Bahru. *Creative Education*, *12*(06), 1235–1246. https://doi.org/10.4236/ce.2021.126093.

Lee, A. Y. L. (2016). Media education in the School 2.0 era: Teaching media literacy through laptop computers and iPads. *Global Media and China*, *1*(4), 435–449. https://doi.org/10.1177/2059436416667129.

Maharani, A. D. (2019). HOTS pada assesment pembelajaran tematik muatan pembelajaran IPA siswa sekolah dasar. *Seminar Nasional Pendidikan Dasar*. https://pmb.umpwr.ac.id/prosiding/index.php/semnaspgsd/article/view/1059.

Margana, M., & Widyantoro, A. (2017). Developing English Textbooks Oriented to Higher Order Thinking Skills for Students of Vocational High Schools in Yogyakarta. *Journal of Language Teaching and Research*, *8*(1), 26. https://doi.org/10.17507/jltr.0801.04.

Marshel, J., & Ratnawulan. (2020). Analysis of Students Worksheet (LKPD) integrated science with the theme of the motion in life using integrated connected type 21st century learning. *Journal of Physics: Conference Series*, *1481*(1). https://doi.org/10.1088/1742-6596/1481/1/012046.

Martin, C. R., Ranalli, J., & Moore, J. P. (2017). Problem-based learning module for teaching thermodynamic cycle analysis Using PYroMat. *ASEE Annual Conference and Exposition, Conference Proceedings*, *2017-June*. https://doi.org/10.18260/1-2--28757.

Mrah, I. (2017). Developing Higher Order Thinking Skills: Towards a Rethinking of EFL Coursebooks in Moroccan High Schools. *Journal of English Language Teaching and Linguistics*, *2*(3), 225. https://doi.org/10.21462/jeltl.v2i3.79.

Muppudathi, G., Education, A., John, S., & College, D. B. (2014). Role of Teachers on Helping Slow Learners to Bring Out Their Hidden Skills. *Ijsr -International Journal of Scientific Research*, *3*(2277), 98–99. https://www.academia.edu/download/34288348/Role_of_Teachers_on_Helping_Slow_Learners_to_Bring_out_their_Hidden_Skills.pdf.

Nurkancana, W., & Sunartana, P. (1992). *Evaluasi hasil belajar*. Usaha Nasional.

Pursitasari, I. D., Suhardi, E., Putra, A. P., & Rachman, I. (2020). Enhancement of student's critical thinking skill through science context-based inquiry learning. *Jurnal Pendidikan IPA Indonesia*, *9*(1), 97–105. https://doi.org/10.15294/jpii.v9i1.21884.

Putri, R. N., & Sulistyaningrum, S. D. (2021). Incorporating Higher-Order Thinking Skills in English Lesson Plans for Senior High School. *Celtic : A Journal of Culture, English Language Teaching, Literature and Linguistics*, *8*(2), 164–176. https://doi.org/10.22219/celtic.v8i2.18330.

Rahman, M. M. (2019). 21st Century Skill "Problem Solving": Defining the Concept. *Asian Journal of Interdisciplinary Research*, *2*(1), 64–74. https://doi.org/10.34256/ajir1917.

Rapih, S., & Sutaryadi, S. (2018). Perpektif guru sekolah dasar terhadap Higher Order Tinking Skills (HOTS): pemahaman, penerapan dan hambatan. *Premiere Educandum : Jurnal Pendidikan Dasar Dan Pembelajaran*, *8*(1), 78. https://doi.org/10.25273/pe.v8i1.2560.

Rejab, M. M., Chuprat, S., & Azmi, N. huda F. M. (2018). Proposed Methodology using Design Development Research (DDR) Improving Traceability Model with Test Effort Estimation. *International Journal of Academic Research in Business and Social Sciences*, *8*(8), 686–699. https://doi.org/10.6007/ijarbss/v8-i8/4625.

Rudibyani, R. B., Perdana, R., & Elisanti, E. (2020). Development of Problem-Solving-Based Knowledge Assessment Instrument in Electrochemistry. *International Journal of Instruction*, *13*(4), 957–974. https://doi.org/10.29333/iji.2020.13458a.

Sani, R. A. (2019). *Pembelajaran Berbasis HOTS (Higher Order Thingking Skiil)*. PT Tira Smart.

Sari, D. A., Ellizar, E., & Azhar, M. (2019). Development of problem-based learning module on electrolyte and nonelectrolyte solution to improve critical thinking ability. *Journal of Physics: Conference Series*, *1185*(1). https://doi.org/10.1088/1742-6596/1185/1/012146.

Siahaan, W. U., Sipahutar, H., & Edi, S. (2021). The Analysis of Students' High Level Thinking Ability on Motion Systems Material on Covid Pandemic 19 at Madrasah Aliyah Medan City. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal*, *4*(2), 730–739. https://doi.org/10.33258/birle.v4i2.1836.

Sofyan, F. A. (2019). Implementasi Hots Pada Kurikulum 2013. *Inventa*, *3*(1), 1–9. https://doi.org/10.36456/inventa.3.1.a1803.

Sucipto, S., & Cahyo, S. D. (2019). A Content Analysis of the Reading Activities in "Bright 2"an English Textbook for Junior High School Students. *English Language Teaching Educational Journal*, *2*(1), 13. https://doi.org/10.12928/eltej.v2i1.918.

Sudirman, A., Candra, V., Dharma, E., & Lie, D. (2021). Determinants of Teacher Performance : Exploring the Role of Satisfaction and Motivation as Mediation. *Jurnal Pendidikan Dan Pengajaran*, *54*(1), 68–79. https://doi.org/10.23887/jpp.v54i1.32417.

Suntani, Tatang, U., Sasongko, Nur, R., Kristiawan, Walid, M., Ahmad, Kusumah, & Tamrin, R. G. (2021). The Role of Principal Interpersonal Communication on Teacher's Work Motivation. *Education Quarterly Reviews*, *4*(2). https://doi.org/10.31014/aior.1993.04.02.206.

Suryawati, E., Suzanti, F., Suwondo, S., & Yustina, Y. (2018). The Implementation of School-literacy-Sovement: Integrating Scientific Literacy, Characters, and HOTS in ScienceLearning. *Indonesian Journal of Biology Education*, *4*(3), 215–224. https://doi.org/10.22219/jpbi.v4i3.6876.

Takko, M., Jamaluddin, R., Kadir, S. A., Ismail, N., Abdullah, A., & Khamis, A. (2020). Enhancing higher-order thinking skills among home science students: The effect of cooperative learning Student Teams-Achievement Divisions (STAD) module. *International Journal of Learning, Teaching and Educational Research*, *19*(7), 204–224. https://doi.org/10.26803/IJLTER.19.7.12.

Thamrin, N. R., Widodo, P., & Margana. (2019). Developing Higher Order Thinking Skills (Hots) for Reading Comprehension Enhancement. *Journal of Physics: Conference Series*, *1179*(1). https://doi.org/10.1088/1742-6596/1179/1/012073.

Tyas, M. A., Nurkamto, J., Marmanto, S., & Laksani, H. (2019). Developing Higher Order Thinking Skills (HOTS). *Based Questions: Indonesian EFL Teachers' Challenges*, *2*(1), 52–63. https://doi.org/10.17501/26307413.2019.2106.

Webb, N. M. (2009). The teacher's role in promoting collaborative dialogue in the classroom. *British Journal of Educational Psychology*, *79*(1), 1–28. https://doi.org/10.1348/000709908X380772.

Yuliati, S. R., & Lestari, I. (2018). Higher-Order Thinking Skills (Hots) Analysis of Students in Solving Hots Question in Higher Education. *Perspektif Ilmu Pendidikan*, *32*(2), 181–188. https://doi.org/10.21009/pip.322.10.