International Journal of Indonesian Education and Teaching
http://e-journal.usd.ac.id/index.php/IJIET
Sanata Dharma University, Yogyakarta, Indonesia

SINDESO: FOSTERING HIGH ORDER THINKING SKILLS THROUGH REAL PRACTICE EDUCATION

Chusna Apriyanti
STKIP PGRI Pacitan
chusna.apriyanti@gmail.com
correspondence: chusna.apriyanti@gmail.com
https://doi.org/10.24071/ijiet.v5i1.1795
received 23 March 2019; accepted 6 October 2020

Abstract
This study aims to know the Sindeso program hosted by Sekolah Alam Pacitan and to know the development of Higher Order Thinking Skills (HOTS) in Sindeso program. The researcher used a descriptive qualitative research design. The researcher collected the data from the students joined Sindeso, the teachers, the communities. There were 130 students divided into ten groups. The research was conducted in February 2018 during the Sindeso program in Wonoanti, Tulakan Pacitan, and Sekolah Alam Pacitan. The data were collected by implementing observations and interviews. After being collected, the data were analyzed using Miles and Huberman data analysis step, including data condensation, data display, and drawing conclusion/verification. The result showed that the Sindeso program is conducted into three stages: preparation, main, and evaluation. Higher-order thinking skills (HOTS) is developed through analyzing, evaluating, and creating process.

Keywords: HOTS, real practice education, Sindeso

Introduction

Education is an essential component of human lives. It deals with all aspects of human beings. Ideally, it brings "brightness" to people's lives. However, education is not as simple as going to school or being literate. It covers the whole dimension of human lives. Some perception appears that being highly educated people means being superior in their education marks. The students who are called "clever" refer to those who have a score above KKM. Therefore, the parents swarm to register their children into some courses. It aims to improve children's scores in their rapport book. In some cases, the children do dishonest actions to keep their score high, like cheating on exams.

However, emphasizing score is no longer essential in children's education. The value plays a vital element in it. Score leaves number, but value gives much more beneficial to children. Education is more complicated than a score. It deals with students' process in developing themselves to face the world. However, education is not only transferring knowledge from books or teachers. It does not cover the student's creativity and thinking. The students need to be more creative than listening to the material from the teachers. This sort of learning has a

negative effect on the psychological development of students, isolates students, neglect them, and make them feel insecure and exile, eventually leave students without sufficient skills (Nourdad et al., 2018).

Indonesia faces the challenge of education. The low level of reading interest has become a challenge for the education system in Indonesia. In March 2017, the World's Most Literate Nations (WMLRN) issued research on human literacy in 61 countries worldwide. Ironically, Indonesia is placed in the 60th position. The developed countries place the first ten in Scandinavian, Finland (Wibowo, 2016). In 2012, BPS claimed that 91% of young learners in Indonesia prefer to watch the television rather than reading a book. There were only 17% who love reading books. Besides, UNESCO issued that index literacy level in Indonesia is 0.0001. It means that there is only one person who reads the book among 1000 people (Hasan, 2017).

However, reading habits dealing with literacy can improve student's creativity and creative thinking. The literature reveals an agreement between theorists and researchers that there is a strong relationship between reading comprehension, critical thinking, and prior knowledge (Aloqaili, 2012). By reading, children can activate their imagination and creativity. The sense of curiosity plays an important part here. It is much more useful than watching television. Watching television limited the student's interest since the action and information are transferred clearly. By creating imagination, children can develop their thinking. Curiosity can alter children's thinking. Jirout and Khalr (2012) define that Children who are curious by trait have been shown to have better question-asking abilities(Alaimi et al., 2020). However, it is not merely the only predictor. Istiani (2015), Herayani (2016), Saironi (2017), and Solehuzain (2017) arguing there is a positive influence of curiosity on students' creative thinking skills although it has a slight percentage because of many factors influencing students' creative thinking skills (Mulyati & Junaedi, 2021).

Undeniable, memorization is also part of the education system. The students tend to memorize the material from books or the teachers' material. Teacher-centered learning still becomes a common phenomenon in Indonesia. Why? The conventional method, like remembering or answering the question on the student's worksheet, does not need the teacher's creativity in the assessment. The teacher can quickly assess the students' task based on the answer key. It assumes that the teacher is "the smartest" figure in the classroom. Besides, the sense of practicality makes the conventional teachers "comfortable" toward the traditional method. They do not need to bring students into the real practice of education.

Those conditions need to be omitted. The teachers have to elaborate their ability supported with facilities to create a modern style of teaching. Memorizing the material makes the students have "temporary understanding" toward the material because they do not "feel" the real implementation of learning. As an example, when the teacher brings a picture of the body in part of body material is not sufficient for teaching vocabulary for students. Without using the image, they can use their own body. The teaching-learning process can be enjoyable by completing the material with a song entitled "head shoulder knees and toes."

Therefore, developing students thinking ability become the key to the modern education system. The teachers need to arouse students' critical thinking. Critical thinking later called as HOTS, is popular nowadays. The education Minister, Muhadjir Effendy, said that the question for Computer Based National Examination is much more complicated than the previous years. It happens because there is 20 HOTS question from all list of item. Hopefully, the students have five thinking competencies: critical thinking, creativity, innovation, communication ability, teamwork, and self-confidence. Tragically, the students still are unfamiliar with HOTS. Ivie (1998) argues that in most classrooms, higher-order thinking receives little or no attention (Tan & Halili, 2015). Yuliati, Siti Rohma; Lestari (2018) state that the preliminary study conducted on 100 students in January 2018 found that a majority (80%) of students answered that they still did not know the whole concept of HOTS; most (95%) students do not have references related to HOTS; a majority (70%) of students answer lecture assignments given by the lecturers are only paper-based so students only take from internet sources without prior analysis, and a majority (78%) students want a learning source for the form of Instructional Evaluation courses that taught about HOTS.

Developing HOTS can be implemented in various subjects. The teachers can perform it both in the classroom teaching-learning process or outside the classroom. In Sekolah Alam Pacitan, HOTS can be seen from the implementation of real practice education called Sindeso. Sindeso is a yearly event when the students join two-day camp in the villages in Pacitan. They have to enter the villager's activities as well as complete the projects. The students are divided into groups with 10-12 members for each group. One teacher supervises each group. During the program, they can implement six thinking competencies developed by Blooms' Taxonomy later revised by Krathwohl in 2001. Therefore, this program is nearly urgent to be identified. Hopefully, the other schools will imitate the program.

Thinking skills are fundamental in the educational process because it generates other aspects of learning. Related to this phenomenon, Krulik and Rudnick (1999) classified thinking skills into four-level categories: recall thinking, basic thinking, critical thinking, and creative thinking (Siswono, 2010). Memorization is the basis for recall thinking. The students are guided to memorize the material in the teaching-learning process. Therefore, it leads them to answer the question based on the data from books. The basic thinking refers to the understanding of subtractions and addition. It gives the students competency to raise a question based on their knowledge. Critical thinking refers to the ability to check, connect, and evaluate all aspects of a situation and problem. The last is creative thinking. It refers to be more complex thinking process. It leads the students to synthesize and create new ideas holistically.

Developing children thinking is one strategy to increase the education system in Indonesia. The students are not only having Low Order Thinking (LOT) but also to reach Higher Order Thinking (HOT). In this case, Remembering, Understanding, and Applying are considered as verbs used for Low Order

Thinking Skills (LOTS), while the three others; Analyzing, Evaluating, and Creating, refer to High Order Thinking Skills (HOTS) (Juhansar et al., 2016).

HOT is originally derived from Blooms' Taxonomy in 1956. Later, it is revised by Anderson, L. W., & Krathwohl, D. R. in 2001. Years later, many theories are supporting the understanding of HOTS. According to Tomei (2011), HOT includes the transformation of information and ideas. The mentioned transformation occurs when pupils can combine facts and opinions, synthesize, generalize, and explain the hypothesis, and they can also arrive at some conclusion or some interpretation.

According to Heong et al. (2011), higher-order thinking is using thinking widely to find a new challenge. A learner's thoughts can affect the ability of learning, speed, and effectiveness of learning. By having high thinking skills, students are not only accepting the knowledge from the teachers but also elaborating on aspects of life. They will have a high curiosity. High curiosity leads to a student's creativity.

Teaching by implementing HOTS is much more beneficial for students. Michael and Jones (2015) in Nourdad et al. (2018) said that there was a significant difference between the performance of the students taught by higher-order methods and lower order methods of instruction. Besides, it revealed that teaching higher-order methods were more beneficial and constructive for students. Similarly, Grigatte (2005) researched the effect of using HOT strategies on developing a child's thinking skills. There were fifty-seven children at the age of six who took part in the experiment. The researcher's findings showed that pupils who received treatment were more creative and showed high degrees of cognitivism (Nourdad et al., 2018).

Viewing back to Bloom's Taxonomy, HOTS is classified into six categories: knowledge, comprehension, application, analysis, synthesis, and evaluation (Bloom, 1956). While the newest theory, Anderson and Krathwohl (2001), in (Wilson, 2016), said that the cognitive process dimension (the verb) consists of remembering, understanding, applying, analyzing, evaluating, and creating.

1. Remember, retrieve relevant knowledge from long-term memory.
2. Understand, construct meaning from instructional messages, including oral, written, and graphic communication.
3. Apply, carry out, or use a procedure in a given situation.
4. Analyze, break material into its constituent parts and determine how the parts relate to one another and an overall structure or purpose.
5. Evaluate, make judgments based on criteria and standards.
6. Create, put elements together to form a coherent or functional whole; reorganize elements into a new pattern or structure.

In the original taxonomy by Bloom, there is a cumulative hierarchy because the classes of objectives were arranged in order of increasing complexity and cumulative because each class of behaviors was presumed to include all the behaviors of the less complex classes (Krietzer et al., 1994) in (Amer, 2006). At the same time, Krathwohl (2002:213) added that mastery of each simple category was a prerequisite to mastery of the next more complex one. Therefore, there is a revised taxonomy. The revised taxonomy by Krathwohl separates the noun and

verb components of the original knowledge category into two separate dimensions: the knowledge dimension (noun aspect) and the cognitive process dimension (verb aspect) (Anderson, et al. 2001:308).

Method

This is descriptive qualitative research. The researcher elaborated on the development of HOTS in the Sindeso program hosted by Sekolah Alam Pacitan. The researcher collected the data from the students joined Sindeso (130 students divided into ten groups), the teachers, the communities. The research was conducted in February 2018. The research was conducted in Wonoanti, Tulakan Pacitan, and Sekolah Alam Pacitan. The data were collected by implementing observations and interviews. The researcher acts as the instrument, meaning that the researcher participates in every single step of research. After being collected, the data were analyzed using Miles and Huberman data analysis step, including data condensation, data display, and drawing conclusion/verification.

Findings and Discussion

The Sindeso Program

The Sindeso or *Sinau ing Ndeso* program is an annual program carried out in the middle of the second semester in each school year. This program aims to introduce rural life to students. Not only by observing the villagers, but also participating in various kinds of activities carried out by the surrounding community. The Sindeso program is divided into three main stages: preparation, implementation, and evaluation.

Preparations have been made before the program takes place. The teachers survey the decided site. The program is spread in several villages in the Pacitan district. For each year, activities are focused on one village but consist of several different houses. Sindeso 2018 was conducted in Wonoanti, Tulakan, Pacitan. Then, the teachers divide the students into several groups. After dividing groups, the teachers give a briefing for the participant. It was carried out to understand the characteristics of their place before going directly to the field. A teacher accompanies each group. In the preparation stage, the participants were assisted by teachers to prepare various needs during the Sindeso program. Therefore, on the program day, the students are ready to join all the activities.

In the main phase, participants are directly involved in the villagers' daily program and the school program. The students, guided by the teacher, ask permission from the homeowner. Then, they go directly to follow daily homeowner activities. The evaluation phase includes the Sindeso exhibition after the program ends. A week after the program, the students, guided by the teacher, show their projects and activities.

HOTS in Sindeso Program

Analyzing

Analyzing means breaking materials or concepts into parts, determining how the aspects relate to one another or how they interrelate, or how the parts relate to an overall structure or purpose. Mental actions included in this function are

differentiating, organizing, and attributing, as well as *being able to distinguish between* the components or parts. When one is analyzing, he/she can illustrate this mental function by creating spreadsheets, surveys, charts, or diagrams, or graphic representations **(**Anderson and Krathwohl's Taxonomy, 2001) in (Wilson, 2016). In this phase, they can compare or contrast two processes in making something. They analyze the situation and get the answer by interviewing with the villagers. They need to be active in making a report (final assessment of the Sindeso program).

As an example of the analyzing process, the students can compare the process of making Tempe. They differentiate two methods in making Tempe: first is by using yeast and the second is by using natural yeast from Waru leaves. Waru leaf or Hibiscus leaves serve any function other than to present a firm and inert attachment surface and to maintain adequate relative humidity during the incubation of the leaf sandwiches (Nout et al., 1992). Waru leaf is chosen due to the low-cost and biodegradability factor. This process raises students' analysis between Waru leaf and yeast for its effectiveness.

All of these processes are an example of the analyzing process in HOTS. By learning in real practice beyond the classroom wall, students do not only learn about the theories but also make trial and error based on the surrounding condition. They are forced to think creatively and solve problems quickly. Like the example mentioned above, the villagers usually make Tempe by using plastic. But, the students propose it using hibiscus leaf for natural fermentation and reduce the problem of plastic waste.

The other group may analyze the process of a coffee plantation. They differentiate the process of coffee into coffee powder. The villagers use traditional methods to process coffee. They compare and find the effectiveness of processing coffee by using modern hulling and by a hammer. The process from coffee seed until deserved in a cup is a long journey. The villagers usually do natural processing or dry processing. It is the oldest way of coffee production. The coffee seeds are dried on a plastic or bamboo carpet under the sun for a week or ten days. Then, they remove the fruit casing by hammering. The process of hammering can be done before the heating process. This process needs a long time mechanism. Besides, it is also unpractical.

Evaluating

Anderson and Krathwohl (2001) (Wilson, 2016) said that evaluating is making judgments based on criteria and standards through checking and critiquing. Critiques, recommendations, and reports are some of the products that can be created to demonstrate the processes of evaluation. In the newer taxonomy, *evaluating* comes before starting as it is often a necessary part of the precursory behavior before one creates something.

This part leads the students to raise their critical thinking as well as their creative thinking. They do not only critically critic the situation or thing, but also creatively find the solution. The solution and methods are based on their knowledge from school. However, they lack experience rather than the villagers. Sekolah Alam Pacitan makes the education system by compiling and combining

the theories and the real application. However, their activities in the villages is not a surprising activity even though the projects and activities are new for them. Each year, the school find different school around Pacitan district to rich the students' knowledge and experience.

Evaluating is an essential step before creating it. As an example, the students assess the effectiveness of Tempe packaging among using banana leaves, Jati leaves, plastic, and banana stem. Each of them has specific strengths and weaknesses. Packaging Tempe using banana leaves or Jati leaves needs a more protracted process because they make Tempe smaller. They consider the width of the leaves. Using plastic is more efficient than using traditional plates, but it is not recommended due to plastic waste. However, using a banana stem is used to make a bigger size and more expensive Tempe. They calculate the most recommended shape due to effectiveness and efficiency.

Through this process, they prepare some considerations to judge and decide. They learn to solve problems through scientific reviews. Children begin to show problem-solving behaviors from early young ages. Thus, children who identify problem situations can investigate the causes and consequences, create thinking processes, and choose appropriate solutions. For this reason, problem-solving skills are one of the most basic and critical skills that children can use throughout their life (Bahar & Aksüt, 2020).

For this reason, problem-solving is a soft skill that must be mastered by the students. For example, when they choose to wrap Tempe by using Banana Stem, they have reasons that it is applicable and low cost since all of the villagers have Banana Stem. They will not choose a thing based on likes or dislikes. They have analyzed before evaluating. By making a decision, they also communicate with their teams. They build their ability in teamwork and collaborative learning. Collaborative learning is essential. It provides a lot of benefits to preschoolers as well as to the learning process. The activities that are subject to collaborative learning are several (language, mathematics, art) and help children develop social, cognitive, and emotional skills that will be useful in their lives (Zisopoulou, 2019). Learning together also builds students' empathy. Sparks (2017) said that collaboration in the classroom could help students think more deeply and creatively about a subject and develop more empathy for others' perspectives.

All of these values are important for children in the future. Teamwork leads children to build a relationship and compromise with other people. They can work cooperatively. They can argue their ideas in group discussions, even raise the solution. They can learn "take and give" information and build a sense of responsibility. They also brave themselves to be involved in group decision making. All of these values can be rooted in direct learning methods like in Sindeso. As their condition is more challenging than inside their classroom. So, they must have surviving skills, as for themselves and their group.

Creating

Creating is the last step in developing higher-order thinking skills. According to Anderson and Kratwohl (2001) in (Wilson, 2016), creating is putting elements together to form a coherent or functional whole; reorganizing elements into a new

pattern or structure through generating, planning, or producing. Creating requires users to put parts together in a new way or synthesize components into something new and different making a new form or product. This process is the most difficult mental function in the new taxonomy.

Creating is the peak of HOTS. It leads to the overall development of thinking. The students create new construction based on their experience from remembering step, then continued understanding, applying, analyzing, and evaluating. The teacher leads them to make a new creation that is different from the existing design. As an example, the students make Tempe in a more modern shape by using a jelly mold. They have different shapes of Tempe based on the mold, such as animal shape, flower, or other shapes. They assume that the new shape of Tempe will make children like to eat Tempe because of the unique shape of Tempe. Besides of its uniqueness, molding Tempe in the jelly mold is more effective than wrapping it by using leaves or plastic bag. It causes wastes. However, jelly mold or chocolate mold is reusable.

By creating innovation, the students will develop their high order thinking skill. Innovation is vital in this industrial revolution, 4.0. era. Innovation can affect people's lives. Like the example, by innovation, the conventional Tempe has been created into various shapes Tempe. It increases the selling because the shape attracts the customers. Another design is found in different processing of traditional herbal. There are multiple traditional herbals in the village that give benefits, like ginger, turmeric, galangal, etc. The villagers usually process it into conventional herbs. Then, they sell it in the traditional market. By adopting innovation, those herbs can be processed into long-term Javanese traditional herbs. They make it in powder form and package it in modern packaging design. Collaboration among schools and communities can create innovation.

Discussion

Sindeso program can be the pilot project for implementing High Order Thinking Skills in education, especially for young learners. Learning is not merely admitted as the formal program inside the classroom with planned steps and material. Education must be recognized as a part of life. It is beneficial for students to face a challenging future. Therefore, learning beyond the classroom wall can be supplementary material and resources for students' knowledge, especially children. Increasing attention is being given to the role of the outdoors as an important aspect of childhood internationally (Lester and Russell, 2010) (Bentsen, 2012). Children are connected related closely to the environment since they learn everything from the surroundings for every single step of their development.

Strong-Wilson and Ellis (2007) explain that childhood is often the first place where we begin to see and use the environment imaginatively [and where] we can begin to notice how our surroundings can take on a life of their own that contributes to children's learning (Robson & Mastrangelo, 2018). Makin (2003) defines the term environment in early education settings as "an aggregate of conditions and influences on learning, including both the physical environment (layout, range of resources, access, and use) and the psycho-social environment

(interactions between staff and children, among peers, and between the setting and its wider context of homes and communities) (Robson & Mastrangelo, 2018).

In Sindeso, children can get much knowledge and value for learning, starting from the preparation until the evaluation. As they go directly to the field, they learn not only everything in the surroundings, but also how to survive in a new place. As an example, when they practice making Tempe with the homeowners, they do not learn about the material and the process of how to make Tempe. Still, they also learn how to sell Tempe in the local market and communicate with the customers. It is the most meaningful learning. Making Tempe might be learned from books or internet sources, but their attitudes in communication with the customers give them courage. Besides, they also know to manage communication with customers.

During the process, they also develop their creative thinking. They cannot predict the programs in Sindeso, or it is far from their daily lives. They live in the city without doing the activities of people in the countryside like planting coffee, farming, making crafts, etc. therefore, all those events raise their curiosity. Those curiosity leads them to be more talkative in asking for much information from the homeowners. They are also asked to write everything they want to know about all the activities. By doing this, their higher-order thinking skills are developed well. They do not only answering the question like they do in the classroom. But, society makes improving their thinking. All of the processes in Sindeso raise students' meaningful learning. Therefore, from the participants, most of them said that Sindeso is an exciting program. The surroundings support the combination of their knowledge from the classroom make them learning thoroughly.

Conclusion

This research aims to know the implementation of HOTS in the Sindeso program. Sindeso is a yearly program of SD Alam Pacitan by combining school learning and real practice education by sending students into some villages and learn villagers' activities. They camp there and joining all of the activities done by the homeowners. Actual practice education, as implemented in the Sindeso program, can develop higher-order thinking skills (HOTS) for students. The students can develop three thinking through daily activities with villagers, analyzing, evaluating, and creating. There are many values found in this program. The students can be an independent person to handle themselves. They must prepare what they need in the program. They stay far from their parents and live together with their friends, teachers, and villagers. Despite self-independence, they learn to work collaboratively. They do teamwork. They share ideas, give opinions, analyze and solve problems, and create inventions. They build their empathy by working together. They will learn how to defend their ego wisely and accept other people's opinions. They know traditional tools and types of equipment for living. They learn how to cook conventionally by using a traditional stove with firewood. All these processes lead them to have meaningful learning. They do not know by opening a book or searching on the internet, but they learn directly in the field.

References

Alaimi, M., Law, E., Pantasdo, K. D., Oudeyer, P. Y., & Sauzeon, H. (2020). Pedagogical agents for fostering question-asking skills in children. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems* (pp. 1-13). https://doi.org/10.1145/3313831.3376776

Aloqaili, A. S. (2012). The relationship between reading comprehension and critical thinking: A theoretical study. *Journal of King Saud University-Languages and Translation*, *24*(1), 35–41. https://doi.org/10.1016/j.jksult.2011.01.001

Amer, A. (2006). Reflections on Bloom's revised taxonomy. *Electronic Journal of Research in Educational Psychology*, *4*(8), 215.

Bahar, M., & Aksüt, P. (2020). Investigation on the effects of activity-based science teaching practices in the acquisition of problem solving skills for 5-6 year old pre-school children. *Journal of Turkish Science Education, 17*(1), 22–39. https://doi.org/10.36681/tused.2020.11

Bentsen, P., Ho, S., Gray, T., & Waite, S. (2017). A global view of learning outside the classroom. *Children Learning Outside the Classroom from Birth to Eleven*, 53-66.

Hasan, A. M. (2017). Potret anak Indonesia: Lemah nalar karena kurang membaca. *Tirto.ID*. https://tirto.id/

Heong, Y. M., Othman, W. B., Yunos, J. B. M., Kiong, T. T., Hassan, R. B., & Mohamad, M. M. B. (2011). The level of Marzano Higher Order Thinking Skills among technical education students. *International Journal of Social Science and Humanity*, *1*(2), 121–125. https://doi.org/10.7763/ijssh.2011.v1.20

Latief, J. A., Pabbajah, M., & Karim, S. A. (2016). The implementation of Higher Order Thinking Skills at Universitas Teknologi Yogyakarta in Indonesia: Opportunities and challenges. *Proceeding of International Conference on Education and Higher Order Thinking Skills (ICE-HOTS), 1*, 80–90.

Mulyati, S., Junaedi, I., & Sukestiyarno, Y. L. (2020). Creative critical thinking skill reviewed by curiosity on independent learning assisted by e-learning. *Unnes Journal of Mathematics Education Research*, 208–214.

Nourdad, N., Masoudi, S., & Rahimali, P. (2018). The effect of Higher Order Thinking Skill instruction on EFL reading ability. *International Journal of Applied Linguistics and English Literature*, *7*(3), 231–237. https://doi.org/10.7575/aiac.ijalel.v.7n.3p.231

Nout, M. J. R., Martoyuwono, T. D., Bonné, P. C. J., & Odamtten, G. T. (1992). Hibiscus leaves for the manufacture of usar, a traditional inoculum for tempe. *Journal of the Science of Food and Agriculture*, *58*(3), 339–346. https://doi.org/10.1002/jsfa.2740580308

Robson, K., & Mastrangelo, S. (2017). Children's views of the learning environment: A study exploring the Reggio Emilia principle of the environment as the third teacher. *Journal of Childhood Studies, 42*(4), 1–16. https://doi.org/10.18357/jcs.v42i4.18100

Siswono, T. Y. E. (2010). Leveling students' creative thinking in solving and posing mathematical problem. *Journal on Mathematics Education*, *1*(1), 17–

40. https://doi.org/10.22342/jme.1.1.794.17-40

Sparks, S. D. (2017). Children must be taught to collaborate, studies say. *Education Week*, *36*(31), 8. https://www.edweek.org/ew/articles/2017/05/17/children-must-be-taught-to-collaborate-studies.html.

Yen, T. S., & 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.

Tomei, L. A. (2005). *Taxonomy for the Technology Domain*. IGI Global. https://doi.org/10.4018/9781591405245.ch005

Wibowo, A. (2016). Kreativitas dan pendidikan kita. *Media Indonesia*. https://m.mediaindonesia.com/read/detail/38101-kreativitas-dan-pendidikan-kita

Wilson, L. O. (2016). Anderson and Krathwohl-Bloom's taxonomy revised. *Understanding the new version of Bloom's taxonomy.* https://quincycollege.edu/content/uploads/Anderson-and-Krathwohl_Revised-Blooms-Taxonomy.pdf

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

Zisopoulou, E. (2019). Collaborative learning in kindergarten: Challenge or reality? *Erken Çocukluk Çalışmaları Dergisi*, *3*(2), 335–351. https://doi.org/10.24130/eccd-jecs.1967201932113