Are fifth-grade students in elementary school during the COVID-19 pandemic in need of a jumping task-based worksheet to aid in the development of their knowledge? A needs analysis explained

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ABSTRACT
The COVID-19 pandemic has forced the education process to be conducted online to avoid face-to-face education patterns. During the pandemic, however, many schools are still failing and experiencing the ineffectiveness of online learning systems. The urgency is that if this condition is not addressed and continues, students may experience a loss of learning, resulting in a lack of enthusiasm to learn at school and, as a result, a decline in cognitive testing results. During the pandemic, learning at the SD Karya Penggawa area, Pesisir Barat Lampung, was less effective, resulting in low student cognitive assessment outcomes. The goal of this study was to assess the need for LKPD development using HOTS-based LKPD Jumping Tasks (High Order Thinking Skills). The method used was a qualitative descriptive research method by conducting a needs analysis. Research data were obtained from interviews and questionnaires. Needs analysis questionnaires were given to teachers and grade 5 students in the Elementary Schools of the Karya Penggawa area. The results of the study revealed that the development of HOTS-based LKPDs needed to be carried out in SD Karya Penggawa areas because students wanted more attractive LKPDs to prevent loss of learning during the Covid-19 pandemic. Besides, it was also revealed that teachers wanted training on the implementation of LKPD jumping tasks to improve the quality of learning.

KEYWORDS
LKPD, jumping task

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Introduction
Closing schools has become a general government response to the development of Covid-19. To prevent face-to-face (offline) schooling practices, education is conducted concurrently online. Learning during the pandemic is hampered by several factors, including a lack of infrastructure (Nabila, 2019), learning techniques that are incompatible with demands (Agustin et al., 2020), limited family support (Ristia Wahyuningsih, 2020), and falling student enthusiasm (Yudhisthira, 2020). These barriers explain why most schools are still failing and have not been effective in implementing online learning programs during the pandemic (Pudyastuti & Budiningwis, 2021). The urgency is that if this condition is not addressed and continues, students will lose motivation to learn at school, resulting in a drop in cognitive testing scores.

A teacher’s pedagogical ability is extremely important in this situation because teachers must innovate with new teaching approaches and fast find active solutions to deal with lose learning. A teacher must be personally conscious that as a professional teacher, he or she can motivate himself in particular and students in general. The contemporary educational system’s learning pattern produces more than just people who can read, write, and count. However, someone who can understand a context will analyze, evaluate and create something new based on the experience or information they get. Therefore, the 21st-century learning process integrates skills in knowledge literacy, skills, attitudes, and mastery of technology to create humans who can reason and think critically. The importance of critical and creative thinking skills is also described and emphasized in the Indonesian national education curriculum known as HOTS (High Order Thinking Skill) in the 2013 Curriculum. Based on the 2013 Curriculum perspective, the teacher’s role has shifted from being the main learning source to being a source of learning, from informing to encouraging children to find out, and from “teacher-dominated learning” to being a
facilitator and "learning observatory" (Samad & Wondal, 2020). The use of companion teaching materials that have the potential to encourage active students in learning, one of which is the HOTS (Higher Order Thinking Skills)-based LKPD (Student Activity Sheet). The use of LKPD can become a liaison between teachers and students to achieve learning objectives. The development of LKPD, especially the development of HOTS-based questions, has the potential to make student learning more effective. Thus, the form of questions in the LKPD can be designed to create an active atmosphere for learning and conducting discussions. In this case, the level of difficulty of the questions in the LKPD is important to plan properly to encourage groups of students to discuss well which in turn makes the learning process in each group better.

HOTS questions are assessments based on real-life scenarios. Students are expected to be able to apply what they have learned in class to solve difficulties. JT (Jumping Task) is the primary component of learning that employs HOTS (Zulkardi & Putri, 2020). The study's findings (Hobri et al., 2020a) suggest that by offering JT, it is possible to challenge students to think critically so that students are not bored while studying, and that JT also allows students to think autonomously.

Jumping tasks are frequently used in Japanese learning practices to refer to high-level inquiries or assignments. According to Sato (2012), this practice is one of the indications of class reform, which is an important objective for the "silent revolution" or classroom revolution that is strengthening in Japan alongside the adoption of "Lesson Study." Jumping tasks are incorporated in questions or tasks of the Higher Order Thinking Skill (HOTS) level in the context of 21st Century learning. The jumping task is intended to stimulate students’ deeper and more complete thinking processes, as well as to inspire them to develop their learning into collaborative learning. Based on the development of Bloom’s Taxonomy by Anderson and Krathwohl (2001), the questions or tasks of the Jumping Task are at levels C4, C5 and C6. Level questions C1 (remembering) and C2 (understanding) are in the “recalling, reciting, restating” category, while level C3 questions (applying) are in the “processing” category. Questions C4 (analyze/analyze) and C5 (evaluate/evaluate) are in the “critical thinking” category and questions C6 (create) are in the ‘creative thinking’ category. Therefore, teachers who can present jumping tasks in the form of reasoning level questions in learning will provide space for developing children's potential better.

Methods

This research was a qualitative descriptive study. In this study, an analysis of the needs of the LKPD was carried out. The analysis was carried out thoroughly regarding the use of learning worksheets in the school. This research was conducted in March at three schools in Cluster 3 of the Karya Penggawa sub-district, namely SDN 81 Krui, SDN 82 Krui, and SDN 89 Krui.

Data were collected through interview approaches and observation of the school’s learning methods. Interviews with grade 5 teachers and students were done. The teacher was questioned regarding the use of LKPD in the classroom. The following stage is to conduct observations by directly observing the state of using the LKPD in schools. There were also observations made to strengthen the analysis.

The data obtained were then analyzed using the model (Miles & Huberman, 1994) as follows: 1) Data reduction, namely the process of researchers in classifying data that are considered important, 2) Presentation of data, namely the process of researchers in compiling information in the form of paragraphs and 3) Concluding/verification namely the process of reviewing the results of writing to reach conclusions.

Result

The findings of the needs questionnaire analysis for fifth-grade elementary school teachers revealed that learning in fifth grade was still focused on memorizing topics, with the instructor serving as the sole source of knowledge. Teachers are unaware of the competencies required in the twenty-first century, hence they are unable to fully develop pupils' cognitive potential. Although the 2013 Curriculum was used in class V, instructors did not integrate learning that is consistent with the features of scientific learning in the problem-based 2013 Curriculum. In terms of LKPD, educators have assigned group projects to students. Some educators have employed assessments, but they have not been fully utilized because the LKPD used is confined to an evaluation rubric in the theme book provided by the government. Educators also perceive the importance of developing LKPD following school settings and for the benefit of feedback for the educators involved to improve learning quality.

For students, it can be seen that some pupils still rarely receive LKPD homework from their teachers. Even pupils that receive LKPD assignments have difficulty working on the LKPD. Students also want teachers to employ a variety of strategies in each lesson since most students do not write down the information obtained from the teacher when learning is carried out. However, it was concluded that all students wanted a more attractive LKPD.
Table 1. Observation Result on The Aspect of Students’ Need

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Alternative Answer</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Is the learning in your class fun?</td>
<td>18 11</td>
<td>65% 35%</td>
</tr>
<tr>
<td>2</td>
<td>Does the teacher in the class always use different strategies every day?</td>
<td>6 23</td>
<td>13% 87%</td>
</tr>
<tr>
<td>3</td>
<td>Do you frequently work on LKPD?</td>
<td>14 15</td>
<td>48% 52%</td>
</tr>
<tr>
<td>4</td>
<td>Do you find difficulty when working on LKPD?</td>
<td>29 0</td>
<td>100% 0%</td>
</tr>
<tr>
<td>5</td>
<td>Do you want an interesting LKPD?</td>
<td>29 0</td>
<td>100% 0%</td>
</tr>
<tr>
<td>6</td>
<td>Do you frequently have questions about the learning material and ask them to your teacher?</td>
<td>12 17</td>
<td>39% 61%</td>
</tr>
<tr>
<td>7</td>
<td>Do you write the information obtained from your teacher’s lesson delivery in the class?</td>
<td>24 5</td>
<td>91% 9%</td>
</tr>
</tbody>
</table>

Table 2. Observation result on the aspect of teacher’s need

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Alternative Answer</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you already know what competence must be owned in the 21st century?</td>
<td>0 4</td>
<td>0% 100%</td>
</tr>
<tr>
<td>2</td>
<td>Do you already apply suitable learning characteristics of 2013 Curriculum (scientific learning) during Covid-19 pandemic?</td>
<td>1 3</td>
<td>25% 75%</td>
</tr>
<tr>
<td>3</td>
<td>Did you ever apply jumping task LKPD in the class?</td>
<td>0 4</td>
<td>0% 100%</td>
</tr>
<tr>
<td>4</td>
<td>Does the learning process this far train students to do reasoning?</td>
<td>1 3</td>
<td>25% 75%</td>
</tr>
<tr>
<td>5</td>
<td>Does the learning process this far train students so that they can solve problem?</td>
<td>1 3</td>
<td>25% 75%</td>
</tr>
<tr>
<td>6</td>
<td>Did you ever use LKPD as an assessment instrument?</td>
<td>2 2</td>
<td>50% 50%</td>
</tr>
<tr>
<td>7</td>
<td>Is the content of LKPD that you use this far suitable with the targeted competence?</td>
<td>1 3</td>
<td>25% 75%</td>
</tr>
<tr>
<td>8</td>
<td>Does the LKPD that you use this far help students in understanding the material?</td>
<td>2 2</td>
<td>50% 50%</td>
</tr>
<tr>
<td>9</td>
<td>Is the LKPD that you use this far capable of training the students?</td>
<td>2 2</td>
<td>50% 50%</td>
</tr>
<tr>
<td>10</td>
<td>Do you agree with the presence of HOTS based jumping task LKPD development?</td>
<td>4 0</td>
<td>100% 0%</td>
</tr>
</tbody>
</table>

Discussion

During this covid-19 pandemic, it is critical to building LKPD jumping tasks in learning. The investigation discovered that teachers lacked the competencies required for 21st-century learning. As a result of this lack of learning development, students experienced a loss of learning. Less varied learning causes students to become bored. When working on LKPD, students face several challenges. Students with high-level thinking skills can benefit from good LKPD development that focuses on HOTS-based challenges (Noprinda & Soleh, 2019). The capacity under consideration is linked to the ability to think critically, reflectively, metacognitively, and creatively (Kristanto & Setiawan, 2020). This is consistent with the goals of the 2013 curriculum in PP No. 17 of 2010, which is to prepare Indonesians to live as individuals and citizens who are faithful, productive, creative, innovative, affective, and capable of contributing to the life of society, nation, state, and world civilization.

Concerning the events concerning students’ higher-order thinking skills, the teacher plays a critical role in developing students with good thinking skills to attain satisfying learning outcomes and the stated learning objectives. As a result, teachers can innovate in the classroom. The LKPD leaping task is one of the efforts that may be made to increase students’ capacity to solve loss learning problems. Assignments that are challenging/above the level of curricular demands are referred to as jumping tasks. Furthermore, jumping tasks might be understood as application-level or development questions (Hobri et al., 2020).

The curriculum for 2013 employs an authentic assessment approach. An authentic assessment is based on the real world or a true context. Students must have thinking skills to solve a problem given by the teacher to attain the best learning outcomes (Kristanto & Setiawan, 2020). However, students in Indonesia continue to have a low level of problem-solving skills. The International Student Assessment Program scores show that students in Indonesia have a low degree of problem-solving skills (PISA). According to the OECD’s 2018 PISA report (2019), Indonesia’s average math score is 379, ranking 73 out of the 79 nations that follow. This is hardly a proud achievement considering Indonesia ranks seventh in PISA. It may be noticed in the discovered learning that learning does not yet have a concept to make pupils think at a higher level. As the only source of learning for students, the instructor is the only source of information. As a result, both teachers and students require the development of HOTS-based LKPD jumping assignments. Many other researchers have undertaken studies comparable to this one. Among them is the 2014 work of Budiman and Jailani, who created a HOTS assessment tool for mathematics classes in grade VII SMP throughout semester 1. Budiman and Jailani’s research aims to produce a mathematical assessment instrument in the form of HOTS test questions that are valid, and reliable, and describe the quality of the HOTS test questions to measure the quality of the HOTS test items. higher-order thinking skills of students in class VIII SMP (Jailani, 2014). Furthermore, Arifin and Retnawati’s work in 2017 developed an instrument for measuring the mathematics HOTS of class X high school students. The research of Arifin and Retnawati intends to develop a valid
and reliable instrument for assessing the mathematics HOTS of class X students, as well as to evaluate the mathematical HOTS ability of class X students based on student tests results.

The COVID-19 pandemic has a short-term influence on learning continuity, which will be felt by everyone, particularly in the education sector, whether in villages or cities. Learning at home online is still new to many Indonesian households. Learning from home is novel for Indonesian families, particularly for parents of children who have occupations that need them to be away from home. Students who often learn in person will also endure psychological issues. This learning from home activity has never occurred and is carried out in such a way that the efficiency of online learning has not been monitored or tested. There is a misunderstanding in areas where the information infrastructure and technology are insufficient for online learning. Because of the COVID-19 outbreak, the administration has decided to temporarily close schools until things return to normal. The school provides a place for students from all walks of life to come together to seek knowledge. Furthermore, schools are locations for teachers and students to connect to build knowledge in cognitive capacities and social skills, as well as to develop students’ self-concepts (Jariyah & Tyastirin, 2020).

Activities that children should be doing at school, such as interacting with their peers and teachers, are hampered by school closures and are replaced with online learning. Interactions are only possible through intermediate web platforms. In addition to school, children’s social skills can be developed and implemented at home with their parents through exchanges in which parents and students collaborate to complete school assignments assigned by the teacher. This engagement, however, will not take place if the students’ parents are too preoccupied with work. Furthermore, parents of students who do not understand the learning material their students and who cannot master technology as a learning tool make students hesitant to seek help from their parents, causing students to be lazy to study online due to a lack of motivation from their parents. To enable online learning activities during the COVID-19 pandemic, teachers and students must utilize current systems. The difference in capacity between each student undoubtedly generates variations in the situation of pupils participating in this online learning (Titi Prawanti & Sumarni, 2020). The situation has abruptly changed, and not all teachers are aware of how to use internet platforms that can enhance online learning activities. As a result, teachers only utilize traditional approaches, such as assigning homework to students. As a result, pupils are bored and do not fulfill learning objectives owing to the loss of learning. Pupils’ loss of learning must, of course, be rectified immediately so that students can fulfill curriculum-based learning objectives. During the COVID-19 pandemic, pupils desired more enjoyable learning due to a shortage of student activities in learning and activity limits imposed by government rules. Giving pupils a solid LKPD leaping jumping activity that is centered on High Order Thinking Skills (HOTS) will encourage them to build their higher-order thinking skills. There are tasks in the LKPD jumping assignment for students to carry out activities that make students more active and can perform entertaining activities in their learning.

Conclusion
The creation of HOTS-based LKPD jumping exercises is necessary since it can help teachers and students achieve their learning objectives. Giving LKPD jumping tasks in lost learning situations can stimulate students to be able to tackle difficulties and assignments that make them think at a high level in solving problems on the inquiries. This affects students’ ability to think at high levels to compensate for the loss of learning conditions experienced as a result of learning during the COVID-19 epidemic. Students will be able to attain learning objectives by employing HOTS-based LKPD jumping tasks.

References


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