

HAVE TEACHERS CONDUCTED COLLABORATIVE ASSESSMENT IN ELEMENTARY SCHOOLS?

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Abstract

Collaborative skills and critical thinking, creative and communication skills are mandatory in the 21st century. Collaborative abilities can be enhanced by providing practical learning and assessment in schools. After implementing the 2013 curriculum in Indonesia, the government provided collaborative assessment through the teacher's book. However, its implementation in the field has not been optimal and still encounters various obstacles. This study aims to describe the implementation of collaborative assessment in elementary schools in the Province of DIY Indonesia. This research is qualitative research with a phenomenological approach. Data was collected through interviews and observations involving 10 participants, namely elementary school teachers in the province of DIY Indonesia. Data analysis uses Milles & Huberman with the stages of data collection, display, condensation, and conclusion. The research results show that the teacher's assessment of collaboration skills comes from the results of group work accompanied by presentation skills. The statement that the assessment was carried out based on the rubric provided in the teacher's book, but it was found that there were still teachers who did not understand how to compose the correct cooperative assessment instrument, as well as the difficulty in assessing students one by one during the learning process also caused collaborative assessment in schools not to be carried out..

INTRODUCTION

The ability to cooperate is a life skill that inevitably must be owned by every individual. With the development of technology and information and the increasing diversity of people who gather in big cities, the ability to cooperate is the central axis for creating a safe, prosperous and conducive environment. In the world of work, the ability to work together has become a mandatory requirement to create a conducive and effective work environment. Nowadays, where everything is becoming international, multicultural and interconnected (Suto, 2013), the ability to work in teams is a mandatory requirement that students need to master to be able to compete with the global community. The ability to work in a team is often called collaborative ability. Together with the ability to solve problems, ICT, critical thinking, innovation, creativity, and communication skills, collaborative skills have become one of the essential skills in the 21st century (Huang et al., 2010; Suto, 2013)

Collaboration is crucial due to the rapid development of communication tools that limit the work environment. Every worker must be able to work in a multicultural environment with other individuals in various situations. The younger generation is considered unprepared if they are not trained to work collaboratively to solve problems (Kuhn, 2015). The government and educational institutions must provide an education system that can train students' abilities as

expected in the world of work because it is vital for schools to teach students how to work well together (Joyce & Calhoun, 2014), as stated by (Sun et al., 2020) that we need to identify the standards of ability needed in the 21st century and find the most effective ways to assess them including cognitive and non-cognitive aspects. One of the efforts made by the government is to develop a new curriculum that can prepare students to face developments in the future. Several countries, such as Korea (So & Kang, 2014), China (Sargent, 2011), and Indonesia, have made curriculum changes.

Collaboration is vital to be introduced to students from an early age. With collaboration, students are trained to be active in groups, required to be able to explain what they do and the reasons they do it and be able to consider the views of other people or other members (Hunter, 2006). Therefore collaboration is essential as an individual student skill. In addition, collaboration in the learning process can expand opportunities for students to explore sources of knowledge.

Previously, collaboration was seen as a means to improve student learning outcomes through engagement and practice, but recently collaboration has also been identified as an outcome of education (Kuhn, 2015). Collaboration is a skill that must be taught to every student in school. Collaborative ability is often also interpreted as working together (Care et al., 2016). Collaboration skills cannot grow independently but require practice and trial and error (Ladd et al., 2013).

Another opinion states collaboration is a mutually beneficial relationship between two or more parties who work towards a common goal by sharing responsibility and authority. In this relationship, these parties may have different or the same perspectives but exchange points of view. In learning practice, collaboration is often interpreted by asking students to work in groups to complete assignments. Even though placing students in groups does not guarantee the achievement of cooperative students (Jolliffe, 2007), instructions and physical arrangements in collaborative learning can only enable students to collaborate, not guarantee it (Lai, 2011). Therefore, good learning planning and appropriate assessments are needed for collaboration skills to develop optimally.

In Indonesia, with the implementation of the 2013 curriculum, cooperation assessment has been provided through a rubric in the teacher's book. However, whether the instruments provided appropriately assess students' collaboration abilities is still a problem in schools. Several studies have shown that collaborative assessments carried out in schools still encounter obstacles, including the tendency for teachers to assess only the cognitive aspects of students still (Le et al., 2018) so that other collaborative aspects are not measurable. It is also found in schools in Indonesia. In addition, many teachers still have not used the cooperation assessment provided due to limitations when teaching (Enggarwati, 2015).

Assessment is essential in implementing education (Retnawati et al., 2016). Educators can obtain information about students through assessment to provide better education (Reynold, 2010). Assessment should be structured to measure student achievement and actual student abilities. Assessment is carried out to ensure that the programs' content is complete, maintain the quality of educators, and design complex assessments (Rotherham & Willingham, 2009).

It is crucial to determine the aspects to be assessed to make an assessment. Likewise, to make a good assessment of collaborative skills, the assessor (in this case, the teacher) needs to define the nature of collaboration skills, which aspects will be assessed, how the assessment will be carried out, and its uses (Hunter, 2006). These are also to determine the level of validity and reliability of the assessment instrument (Child & Shaw, 2016).

It is explained that collaboration can be seen as a process and result. As a process, the assessment is to see how sound students carry out the collaboration process, while as a result of the assessment, it is carried out on the results of collaborative work. It implies that the assessment of results, work results or group products take precedence over the process of achieving them. In assessing students' collaboration process, six aspects of collaboration can be used: Social interdependence, Conflict resolution, Introduction of new ideas, Sharing of resources,

cooperation/task division, and communication. Meanwhile, assessing aspects of learning outcomes achieved during collaboration can be done on the quality of the final product, which is usually done through product presentations or portfolio results (Child & Shaw, 2016).

In addition, (Keast & Mandell, 2013) stated that the collaboration process involves four aspects that influence collaboration, namely relationship management with others, analysis and planning, process, and personal attributes. (O'Leary et al., 2012) also define aspects that influence collaboration skills: individual attributes, communication, group process skills, conflict management, strategic leadership, sharing, and technical/ substantive knowledge. Based on the above opinion, aspects of collaboration can generally be summed up as social skills, communication, personality aspects, knowledge, problem-solving skills, leadership, and sharing resources or knowledge.

Assessment of collaboration skills is an issue that teachers often forget. To understand more clearly how to measure collaboration skills, teachers must first understand their point of view regarding collaboration as a result or as a process. An understanding of what will be assessed based on the theory and definitions determined (Child & Shaw, 2018) is needed in assessing collaboration. Implementing assessments that assess individual or group learning outcomes differs from collaborative assessments as skills are demonstrated. In other words, teachers who design assessments must first understand whether they value collaboration as a process or a learning outcome (Child & Shaw, 2018). Collaboration assessment must be clear; if, as a process, it focuses on the quality of interactions between students, while collaboration as a result of learning focuses on the quality of results or products (Webb, 2009). Assessing collaboration as a process can be done through observation of six aspects which are categorized into two domains, namely maintenance conditions (state maintenance and socio-cognitive) and socio-cognitive; maintenance conditions include social dependency, communication, division of labor, while in the socio-cognitive domain including sharing sources, idea generation, and conflict resolution. These six aspects become the standard for knowing someone is a good group member.

Collaboration, as a result, emphasizes the final results, especially the products produced after students carry out the collaborative learning process. What needs to be considered for teachers in measuring collaboration as a result is, firstly, the need for initial measurements to be able to find out the increase in results (Lai, 2011). Secondly, teachers should innovate collaborative learning models that will be applied following the objectives of the material to be mastered.

Individuals with good collaboration skills can encourage their group members to find solutions to their problems (O'Leary et al., 2012), communicate well, facilitate members, think big, and help them work together (Keast & Mandell, 2013). The explanation above shows that collaboration skills are closely related to emotional, social, and cognitive aspects. Therefore, all of these aspects should appear and be measured in compiling an assessment.

METHOD

The research applies qualitative research with a phenomenological approach. This study involved ten teachers from the DIY province, consisting of four districts: Sleman Regency, Kulonprogo Regency, Gunung Kidul Regency, Bantul Regency and one Yogyakarta Madya city. From each region, two teachers will be taken as samples. The selection of schools as research sites was based on considerations of using the 2013 curriculum. Meanwhile, the teachers were selected with at least a bachelor's degree in education.

Data collection was done by interview and observation. Interviews were conducted on all research subjects. Interviews were conducted to obtain data regarding implementing collaborative assessments in elementary schools. Researchers carried out participatory observation during the learning process. While the documentation is done to collect data and archive assessments carried out by the teacher. Data analysis in this study used Miles and Huberman's data collection, display, condensation, and conclusion stages. Data from notes and audio recordings is reduced to a more straightforward form and grouped according to similar themes. The next step is to determine the relationship between the sub-themes to gain

conclusions and understanding regarding the assessment of collaboration skills in elementary schools, including the assessment concept, aspects of assessment, and challenges in elementary schools in the Special Province of Yogyakarta. In collecting data, respondents were given guarantees for the confidentiality of their identities and using data only for this research..

RESULTS AND DISCUSSION

In this study, two themes were found 1) the concept of assessing collaboration skills used by teachers and 2) aspects of assessment and 3) challenges in assessing collaboration abilities.

Concept of Collaboration

Based on the explanations of 10 teachers, it was found that all teachers stated that they had carried out student cooperation assessments. However, it is necessary to investigate how much the teacher understands the operational assessment of collaboration abilities. Previously, to carry out an assessment, the assessor must first determine the construct of the collaboration as a process or outcome. Table 1 presents the data reduction from the teachers' answers regarding the concept of collaboration used in the assessment.

Table 1.
 Teachers' Concept of Collaboration

No.	Sub-theme	The Correlation Between Sub-themes
1.	Teachers assessed collaboration skills from group work products, individual test results, and group processes	Teachers understand that the assessment of collaboration skills is carried out on group work products, individual test results after learning activities, and observations during group activities
2.	The teacher believes that assessing collaboration abilities is carried out from the results of individual tests after group activities	
3.	The assessment is carried out using test questions and the cooperative attitude rubric provided in the teacher's book	
4.	Assessment of cooperation is done through observation with the rubric provided	

Assessment is carried out through group assignments, discussion assignments, or projects. Based on the results of the interviews, it is known that teachers believe they have carried out assessments of collaboration abilities with various approaches. From 10 respondents, it is known that the teacher has assessed collaboration abilities. It was found that the teachers did not know there were differences in the concept of collaboration as an outcome or process. However, from the interviews, it can be seen that the assessment carried out touched on some of the concepts of collaboration as a process and an outcome.

It is known from the statement that the assessment is carried out based on the product of group work, tests after group activities, and student attitudes during group processes. In assessing the process, the teacher uses observation techniques. Observations were made to observe how the discussion, negotiation, and finding solutions occurred. The teachers conveyed that the assessment aspects follow those set out in the rubric in the teacher's book. In the 2013 curriculum teacher's book, assessing the ability to work together includes socio-cognitive aspects, state maintenance, communication, and attitude. By following the indicators in the rubric, it is understood that the teacher assesses the outcome and process domains.

It is known that although most have carried out assessments by combining the two domains, one teacher believes that collaborative assessments should only be carried out on individual tests. In contrast, an assessment should not be carried out during the group process. He believes collaboration is a teacher's tool to achieve learning goals through learning outcomes. Group activities should not be a source of judgment. Collaboration was initially present in learning not as a result of learning objectives but rather to help teachers improve learning success (Child & Shaw, 2016). So collaboration is believed to be a learning strategy that helps create fun learning and increases students' understanding of the material. But now, it has become an obligation for educational institutions to practice cooperation skills because students are said to have not received the proper education if they have not been taught cooperation (Kuhn, 2015).

Assessment of cooperation is also often a confusing task for teachers because of the tendency for the term cooperation to be seen as referring to attitudes and behavior. Thus, it was found that one teacher believed that the assessment of cooperation should be carried out through observation using observation sheets. Although respondents also realized that by focusing on observation, the cognitive aspects were often forgotten to be measured.

In addition to behavioral observations and individual tests, another assessment technique used by teachers is peer assessment. This technique is believed to be more capable of providing accurate data considering that the teacher cannot always pay attention to every student throughout the lesson. In addition, giving students the power to judge other friends is believed to increase a sense of attachment to the learning process and students' self-confidence. Peer assessment is feasible considering that existing research states that elementary school-age children understand and have a good concept of the characteristics of group members (Ladd et al., 2013). The tendency of the students is on the social aspect, where individuals who can mediate conflicts in groups are the primary skills to work together.

Assessment Aspects

As stated, to carry out an assessment properly, of course, first requires an understanding of the aspects being assessed, which need to be mastered by teachers as assessors. Even though the aspects and indicators that need to be assessed in the evaluation process have been provided in the teacher's book, the teacher's understanding of the indicators that need to be considered cannot depend only on the guidelines provided. The teacher's assessment aspect in this study was identified through the teacher's explanation of the critical aspects of cooperation that elementary school students need to demonstrate.

Table 2.
 Aspects of Assessment

No.	Sub-theme	The Correlation Between Sub-themes
1.	Communication skills and being responsible for their duties are necessary attitudes in teamwork	The teachers understand that the assessment of collaboration skills is carried out based on aspects of cooperation. Most teachers have captured the primary purpose of collaboration skills but have difficulty describing it in indicators
2.	Assessment of cooperation is based on the activeness of students contributing in groups and cohesion.	

The results show that the teachers understand enough aspects of cooperation. It was obtained based on the interviews where three teachers had difficulty explaining aspects of cooperation. Cooperation includes positive social dependence, conflict resolution, idea submission, information sharing, division of labor, and communication (Child & Shaw, 2016). The three teachers mentioned other essential aspects of task completion but not as collaboration characteristics such as honesty and discipline. The aspect of cooperation that all teachers always

mention is communication skills. Teachers recognize communication skills as the central aspect of collaborative skills.

Based on the results of interviews, teachers often state "cohesiveness and activeness" as the main aspects that students need to show. The term cohesiveness refers to helping each other among group members, not leaving the group until the task is completed, and supporting one another. These three things are characteristics of working together (Johnson & Johnson, 2008; Kagan & Kagan, 2009; Ladd et al., 2013). Meanwhile, the term "active" can be understood as the behavior of conveying ideas and solutions for problem-solving. Collaborating with information and proposing solutions is important (Child & Shaw, 2018). Even the Collaborative Problem Solving (CPS) measurement has become a particular focus in the 2015 PISA assessment. It shows the importance of the cognitive aspect in collaborative activities.

Challenges to Assessment

The challenges in assessing collaboration abilities conveyed by teachers are closely related to the implementation of curriculum policies. The teachers stated that the assessment instruments provided were still difficult to apply with the existing classroom conditions.

Table 3.
 Challenges to Assessment

No.	Sub-theme	The Correlation Between Sub-themes
1.	The teachers did not understand the concepts and aspects of collaboration	Challenges in assessing collaboration skills include the teacher's lack of understanding, subjectivity, and the complexity of the recommended assessment instrument
2.	Teachers still have difficulty using assessment guidelines that are considered too complex	
3.	The number of students in each class that exceeds the adequate number makes it difficult for teachers to carry out intensive assessments	
4.	The subjectivity of teachers to students is more prominent	

One of the characteristics of the 2013 curriculum assessment is an authentic assessment that separates the cognitive, affective, and psychomotor domains. Assessment of cooperative abilities includes K2, K3, and K4, but the teacher avoids using complex assessment instruments (Retnawati et al., 2017). It was found that the recommended assessment instrument was more complex than the previous curriculum, making it difficult for teachers. It is reinforced by the number of students in several classes that exceed the number of students in the ideal class.

The challenge in assessing collaboration skills is also influenced by the teacher's minimal understanding of collaboration skills, including its aspects. This limited understanding of teachers affects learning practices (Hennessey & Dionigi, 2013). Assessment of group work can be an unexpected challenge for the assessor, but that does not mean that the easier path is then chosen (Hunter, 2006). Teachers can use various measurement techniques to obtain evidence of students' collaboration abilities. Limited teacher understanding can be overcome by developing competence through independent learning or training by institutions. Therefore it takes the willingness of teachers to improve their competence. Teachers' willingness to develop low competence can hinder understanding the new curriculum (Retnawati et al., 2017). Even with qualified ability and understanding, the teacher can become a problem solver in his class. The teacher's ability to recognize problems in the classroom is crucial because it allows problems to be resolved quickly (Pingge, 2016).

Teacher subjectivity is a factor that cannot be ruled out. With the assumption that students are more prominent either because of their achievements or because of their learning problems, it can result in a biased assessment. Teachers need to provide equal opportunities for every student. Given that each student has their own potential and student development is dynamic (Mulyawati et al., 2022). Providing an appropriate and clear assessment rubric can also be a solution to reduce subjectivity in assessment (McKeirnan et al., 2020; Morán-Barrios, 2017).

CONCLUSION

The ability to collaborate is a life skill that can no longer be avoided. Collaborative problem-solving has been explicitly stated as an ability that is measured as a 21st-century skill. With proper learning design and assessment, this ability can develop optimally in students. Currently, the assessment of collaboration skills in elementary schools is starting to get attention. It can be observed in the provision of complex assessment instruments. However, in practice, a complex instrument does not guarantee the implementation of a practical assessment without sufficient understanding by the teacher and the assessor. Most teachers have implemented collaboration assessment as a process and outcome but are unaware of it. Therefore assessment is increasingly a heavy burden for teachers. Teacher understanding which is still limited needs to be developed with training programs and, of course, the teacher's willingness to develop their professional competence.

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