

# Analysis of Elementary and Junior High School Teachers' Understanding of National Assessment in the Kuningan District

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**Abstract:** The Merdeka Belajar policy essentially aims to accelerate the achievement of national goals of education. One of the major changes in the policy is the implementation of the National Assessment (NA) which substitutes national exams and changes the focus of assessment into literacy and numeracy skills. This leads to a demand for teacher to adapt learning process and classroom assessment for facilitating students' literacy and numeracy skills. Therefore, teacher understanding about the element in national assessment is a very important factor in the implementation of National Assessment. As the response, this study collects data about teacher understanding from 100 elementary and junior high school teachers in the Kuningan Regency area. The results shows that the elementary and junior high school teachers already have a good understanding of the objectives of NA and awareness that the implementation of NA would have an impact on providing a more varied learning and assessment experience. However, it is shown that the good understanding and awareness is not supported by capability to develop literacy and numeracy questions. The support for improving capability in making questions that align with the NA is needed in order to provide appropriate measurement and assessment of student learning outcomes and provide the basis for decision making in the classroom learning process.

**Keywords:** Evaluation; Literacy; National assessment; Numeracy

## Introduction

Indonesia, as one of the developing countries, always orientates to increase competitiveness in the era of globalization. One of the efforts taken by the government is to improve the quality of human resources. This is because the sustainability of national development can only be maintained when the government prioritizes the quality of existing human resources (Bukit et al., 2017). Improving the quality of human resources is essentially proportional to the quality of education. This is because education has a very important position in improving the quality of life and dignity of the nation and state (Sakız et al., 2020). Therefore, the Indonesian government is trying to

improve the quality of education in order to generate capable, competent, and globally competitive individuals.

Various policies have been made by the government to improve the quality of education, one of which is the policy of Merdeka Belajar. The Merdeka Belajar is a program rolled out by Nadiem Anwar Makarim as the Minister of Education and Culture in 2020. The Merdeka Belajar Policy is implemented to accelerate the achievement of the national goal of education, namely increasing the quality of Indonesian human resources which has advantages and competitiveness compared to other countries (Kemendikbud, 2021). A major change in the policy of Merdeka Belajar is in its evaluation system. The

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evaluation system, which initially used the National Examination, was changed to a National Assessment that emphasizes literacy and numeracy skills as an effort to improve educational outcomes, this aligns with international policy trends among members of the Organization for Economic Cooperation and Development (OECD) which aims to improve 'core' educational outcomes in literacy and numeracy (Barnes & Cross, 2020). The implementation of the National Assessment is intended to monitor the development of the quality of education from time to time as well as gaps between parts of the education system in throughout the country (Meriana & Murniarti, 2021). National Assessment is an assessment of fundamental competencies that must be possessed and needed by all students to be able to develop self-capacity, and function productively and positively in life in society (Pusmenjar, 2020). The measurement of fundamental competencies can be used to develop thinking skills in implementing knowledge in everyday life (Ackermans et al., 2021; Deneen et al., 2019). This National Assessment covers a minimum competency assessment, character survey, and a survey of learning environment. Focusing on the Minimum Competency Assessment, the assessment is designed to produce information that triggers improvements in the quality of teaching and learning, which in turn can improve student learning outcomes (Fauziah et al., 2021). Assessment not only aims to improve learning outcomes but prepares students to understand problems in real life so that the knowledge they have becomes meaningful (Raselimo & Mahao, 2015; Umi et al., 2021).

One of the reasons the government implemented the NA is based on the results of The Programme for International Student Assessment (PISA) Indonesia in 2018, stating that in the reading ability category, Indonesia is ranked 72 with a score of 371 out of 78 countries, while for the assessment of Indonesian mathematics ability is ranked 72 with a score of 379 out of 78 countries. Overall, Indonesia is ranked 72 out of 78 PISA participating countries. So that it can be interpreted that the current condition of Indonesian education is in fairly bad condition and must immediately receive proper treatment. In addition, based on the results of the Indonesian National Assessment Programme (INAP) released by the Ministry of Education and Culture (2020), it is shown that 77.13% of Indonesian students has poor numeracy capability, meanwhile, 46.83% Indonesian students have poor literacy skills (kemendikbud, 2021).

Considering the situation, professional practice of teachers is urgently needed for preparing students to follow national assessment, especially knowledge of national assessment policies, the implementation of learning that facilitates students to have literacy and

numeracy skills, and how to develop literacy and numeracy problems (Kulgemeyer et al., 2020). However, in its implementation, it is not yet known further about the teacher's understanding of national assessment. Therefore, this study aims to uncover the extent of teachers' understanding of both junior high schools and elementary schools regarding national assessment.

### Method

This research is survey research which uses samples as the subject/object under study and questionnaires as the main data collector or research to reveal respondents' opinions. Survey research is a type of research that makes an accurate estimate of the characteristics of the entire population (Barbrook-Johnson et al., 2020). The design of this research includes evaluation research using a quantitative approach. This evaluation study aims to determine the extent of the understanding of junior and elementary school teachers toward the Minimum Competency Assessment. The information collected can be used as a basis or basis for making recommendations for improving the quality of Education (Barbrook-Johnson et al., 2020; Oktaviani et al., 2021). The research steps of this survey are presented as follows:

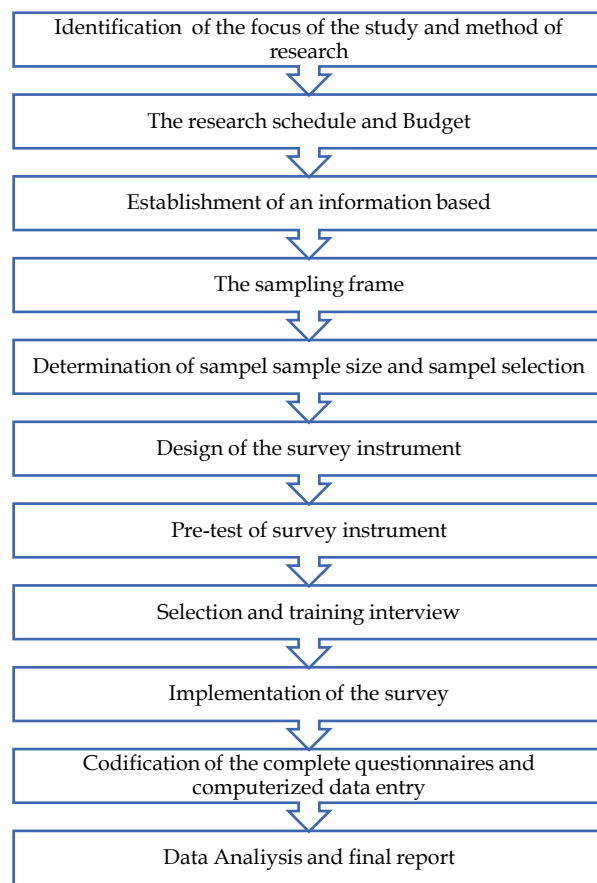


Figure 1. Research steps (Sukmadinata, 2010)

This research was done Kuningan Regency, West Java, Indonesia from January to March 2022. The population for this study was 100 elementary and junior high school teachers. To collect the data about teacher understanding on NA, the teacher respondents were asked to answer a questionnaire consisting 27 questions which divided into 9 indicators namely, general understanding about the NA, the difference between assessment and evaluation, characteristic of authentic assesment, the aim of merdeka belajar policy, the characteristic of NA, the component of NA, the relation between NA and 21<sup>st</sup> century skills, the determination of cognitive process, and question item variation in NA. These nine indicators are derived from the element and principle from NA which are essentials for arranging learning process that facilitate students' numeracy and literacy skills in accordance with merdeka belajar policy.

Beside the use of questionnaire, this study also utilized interview guidelines validated through expert judgment. The validated items were then analyzed to determine their level of reliability. The calculation of the reliability of this questionnaire refers to the alpha formula of the following:

$$r = \left(\frac{k}{k-1}\right) \left(1 - \frac{\sum \sigma_i^2}{\sigma^2}\right) \tag{1}$$

(Arikunto, 2008)

The reliability test showed a value of 0.78 and which is considered as good. Data analysis techniques for data obtained from questionnaires and data processing was carried out descriptively using editing, scoring, and tabulation stages. Additionally, the analysis of quantitative data obtained from the answers to the questionnaire was done by separating the data into similar parts, as well as looking for the average value and percentage of the respondent's answer. The results of the percentage obtained were then interpreted into qualitative category presented as below:

**Table 1.** Qualitative Interpretation of Percentages

Percentage (%)	Category
76-100	Excellent
51-75	Good
26-50	Not Good Enough
0-25	Bad

This percentage is calculated by averaging the nine indicators on the question of understanding the national assessment. The result was then categorized into excellent, good, not good enough and bad. This categorization provides a clear comparison of the quality of understanding between primary school and junior high school teachers.

## Result and Discussion

The National Assessment (NA) is carried out in Indonesia starting in 2021 which aims to improve the quality of education. The implementation of NA emphasizes on literacy and numeracy skills which are deemed to be foundational for students to apply knowledge in solving problems in everyday life. Therefore, the question items in NA require students to process information, utilize concepts, and use mathematical tools as the basis for students thinking. The implementation of the new method of assessment in NA affects not only students' readiness but also teachers' capability in carrying out learning and assessment process. Based on the observation in schools, it is found that the practice questions given by teachers in assessing learning outcomes tend to be textual and unable to emphasize information processing. This shows how questions that students usually do at school is essentially different from the form of questions in NA. This condition accounts for students' unpreparedness in facing NA.

In regards to teachers, it is argued that the teacher readiness in facing NA is a very important factor, especially toward proper understanding of the implementation of national assessment (Suliyannah et al., 2020). This readiness is conveyed in teacher understanding about the minimum competency assessment. Building on this, this research raises five questions to collect data on teacher readiness to provide foundational information for how developing the teacher's ability to improve the learning and assessment process in preparing students for national assessment. Questions on the indicators of teacher's perception of the aim of national assessment. Based on the results of a survey of 100 teachers in Kuningan, it is shown that the average understanding of elementary and junior high school teachers in Kuningan patents about national assessment is already in a good category. Referring to the data in Figure 1, it can be seen that the understanding of junior high school teachers about NA is better than elementary school teachers. This is because the junior high school teachers already understand that NA is implemented to improve the quality of national education and teachers play a very important role in improving literacy and numeracy in the process of learning in all subjects, while the majority of elementary school teachers assume that increasing literacy and numeracy is the responsibility of language teachers and mathematics teachers. The teacher's perception of national assessment is very important since it influence the process of preparation, implementation, and assessment of learning, which subsequently affect the joint responsibility of all school residents in improving

student literacy and numeracy. This aligns with statement from some researchers that student success is closely related to the quality of teachers in carrying out learning to achieve a goal (Barnes & Cross, 2020; Deneen et al., 2019).

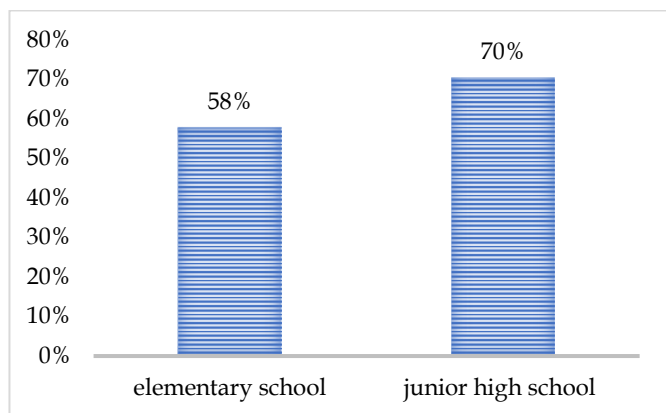


Figure 2. Average Understanding about NA

The first indicator is related to teachers' initial understanding of evaluation and assessment. The survey shows that both teachers in elementary and junior high school obtain a very good understanding of the concept of evaluation and assessment. This is evident by how teachers articulate that the assessment does not only emphasize learning outcomes but also learning process. In the practice, this understanding leads to teacher who are not only just in assessing students but also active in developing students' competences. These characteristics are demonstrated by the teacher respondents who have decent experience in teaching. The result of teachers' responses is presented in in figure 2.

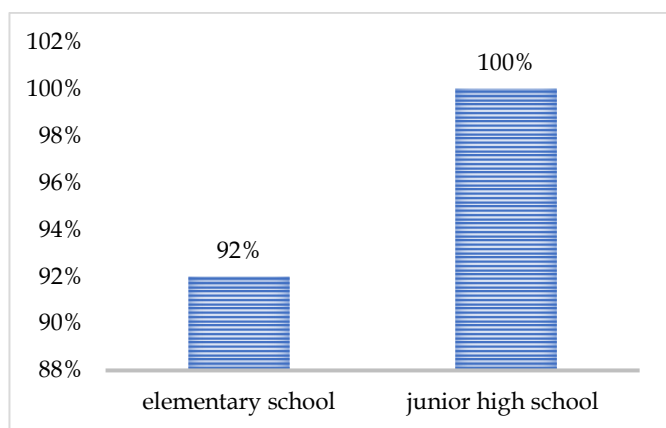


Figure 3. Teacher's Understanding of Assessment and Evaluation

The figure 3 explains that 92% of primary school teacher and 100% teacher junior high school have a very good understanding of the difference between assessment and evaluation. The majority of teachers in

Kuningan already understand that assessment is a part of the evaluation and that generally, the assessment does not only assess knowledge but all student competencies including knowledge, skills, and attitudes. Furthermore, assessment in the learning process is essential to collect necessary data and information for arranging strategies to achieve learning success. Ideally, the assessment is designed and carried out continuously, meaning that the assessment must measure student progress at all times to provide a complete and comprehensive idea of how student development progresses (Hindriana & Setiawati, 2018; Lestari et al., 2019)

Based on the results of interviews with several teachers, the majority of teacher respondent agree with the change from national examinations to national assessments due to higher flexibility in assessing student learning outcomes. However, the teachers are still unsure about the regulation of the Minister of Education and Culture of the Republic of Indonesia number 23 year 2016 concerning the assessment standards in Indonesia which encourages the application of authentic assessment aiming to develop students potentials. This teachers' confusion is also shown in the survey on the question related to authentic assessment which categorized as not good (32%) for elementary school teacher, while junior high school teachers are in the category of excellent understanding (76%). There are several factors that cause elementary school teachers to have a poor understanding about authentic assessment. One of which is the low opportunity to implement authentic assessment in elementary schools. This is because the teachers in elementary schools focus the assessment more on cognitive domain compared to the physical and psychomotor domains. The overfocus on cognitive domain is attributed to the in availability of assessment instruments for physical and psychomotor domain in elementary level; therefore, teachers are not facilitated in conducting authentic assessments resulting in low understanding of authentic assessment. Considering this situation, it is suggested to hold a training on making assessment instruments to carry out authentic assessments, especially assessment rubrics, because the use of rubrics can help students to achieve maximum learning outcomes and help teachers in developing students' potential in terms of knowledge, skills, and attitudes. In addition, the rubric can be used to reflect on the learning process has been carried out since rubric can encourage students and teachers to achieve common goals and can monitor learning progress jointly between teachers and students (Bearman & Ajjaw, 2021; Tractenberg, 2021).

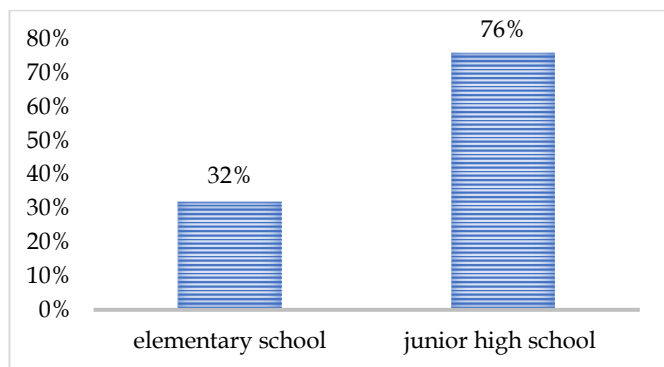


Figure 4. Characteristics of Authentic Assessment

The third indicator is the purpose of Merdeka Belajar program. It is larger assumed that a large number of teachers in Kuningan district already know and understand the policy of Merdeka Belajar as a program that encourages students to improve their thinking processes during learning to facilitate students to be capable "problem solvers". This teachers' good understanding is evident in the result of the survey result showing that teachers from elementary and junior high school belong to good category. This is further supported by the interviews wherein teachers deliver that the enactment of national assessment will have an impact on the achievement of student learning outcomes, thus the most important thing for teachers to do is to improve the teaching and learning process, as well as provide a more varied learning experience to students so that students can implement the knowledge, they already have in responding to problems in the surrounding environment. This teacher awareness of the importance of improving the learning process is crucial in the implementation of merdeka belajar. This is because the learning that involves students thinking in solving a problem will have a positive impact both on learning outcomes and social interaction so that the learning process will become more meaningful and increase learning efficiency by collaboration in generating ideas leading to problem solving (Barnes & Cross, 2020; Li et al., 2022).

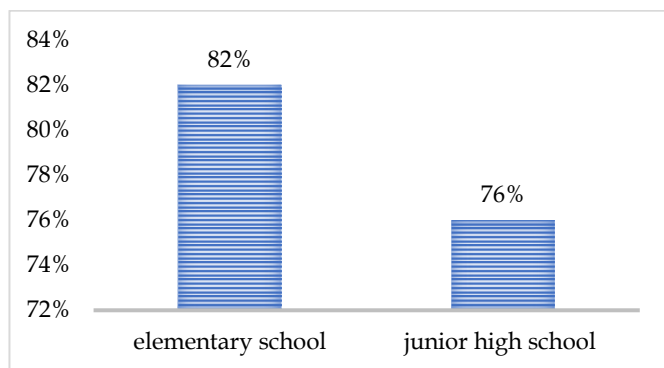


Figure 5. Teacher's Understanding of the Purpose of Merdeka Belajar

The figure 5 depicts the results from questionnaire showing that a large number of teachers already understand the relation of national assessment with the implementation of Merdeka Belajar. This aligns with the intention of the Merdeka Belajar policy which focuses on the role of teachers in realizing the transformation of education management in Indonesia aiming to encourage the improvement of the quality of learning and student learning outcomes, thus proases assessment of learning outcomes authentically becomes an important thing to implement. To further optimize the role of teachers in carrying out the transformation of education management, it is important to note that schools and the Education Office need to focus on effective resources allocation to improve the quality of learning (Hidayah & Kadarwati, 2021). This implies that schools need ensure that teachers and students are aware of how the assessment process in the national (Meriana et al., 2021). However, the survey shows that most teachers respondent still have difficulty in understanding the distinctive characteristics of the national assessment, especially on how to develop literacy and numeracy questions. This is shown in the result of questionnaire depicted in Figure 6 that the understanding of elementary school teachers (54%) is higher than that of junior high school teachers (18%) regarding knowledge about the characteristics question item in the National assessment. This is because elementary school teachers are used to thematic learning and holistic material concepts, elementary school teachers have begun to make contextual questions related to students' experiences in everyday life, but not many have addressed current problems.

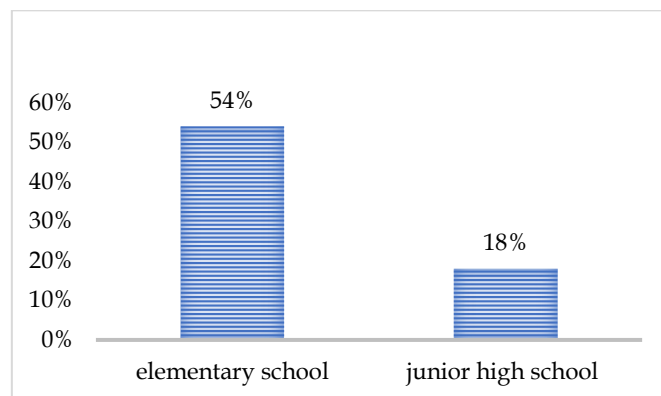


Figure 6. Characteristic Asesmen Nasional

Supported by the interview, it can be concluded that the poor understanding is attributed to the situation wherein elementary school teachers are used to making thematic questions but have not yet reached a high level of cognitive processes, in general, the questions tested still measure basic literacy and numeracy. Similary, the low understanding of the characteristics of national

assessments among the Junior high school teachers is due to the teachers who are more focus on their respective subjects, making it difficult when understanding national assessment questions that are cross-disciplinary in nature. The low understanding of the characteristics of national assessment problem has an impact on the learning process, where most junior high school teachers still emphasize mastering concepts compared to reasoning, both reasoning about text and numbers. The low understanding of the characteristics of the national assessment must certainly be overcome immediately because teachers play a very important role in achieving learning outcomes. When teachers do not understand the characteristics of the national assessment, there will be the potential to neglect the learning process related to the purpose of implementing *merdeka belajar*, especially improving literacy and numeracy skills. Teachers' understanding of assessment literacy is an important step in developing assessment skills and improving the learning process by the competencies to be achieved (Deneen et al., 2019; Schut et al., 2020). Although in the interview the junior high school teachers stated that they already understand the characteristics of the national assessment and they have implemented it in the learning process, especially related to problems that are contextual and must be solved in a multidisciplinary manner, they still find it difficult to develop their assessment. Teachers' understanding of the characteristics of the National Assessment, which is still in the poor category, is related to questions in the national assessment component indicators. The data shows that teachers do not understand the national assessment component. The literacy and numeracy components to measure the fundamental abilities or competencies required by all learners regardless of their profession and ideals in the future, consist of Content, cognitive processes, and context. The survey results can be seen in figure 7:

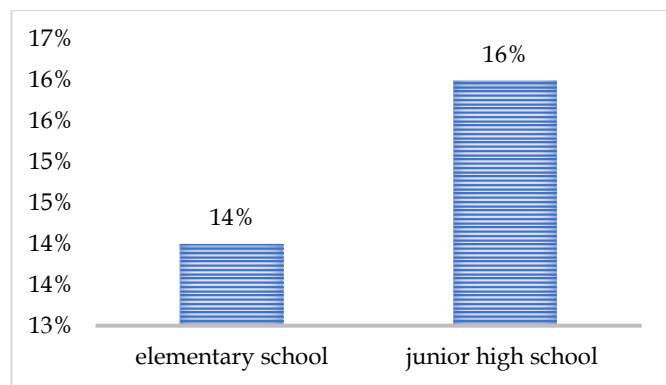


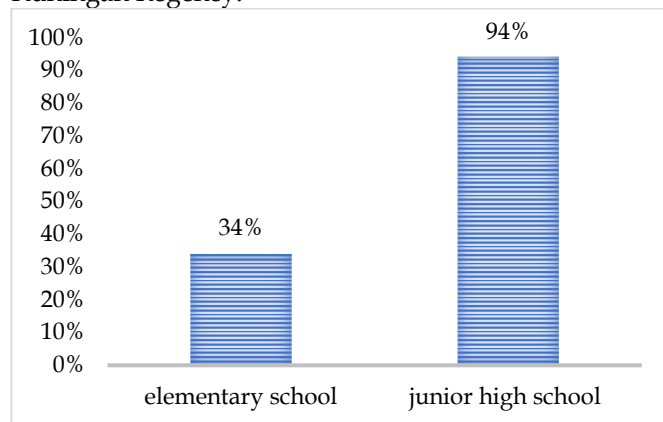
Figure 7. Component of National Assessment

The data above shows that only a small percentage of teachers understand the content, cognitive processes,

and context that exist in NA questions, when faced with questions about content, they still have difficulty distinguishing between literary content and informational text because they both contain information that must determine cognitive processes ranging from finding information, achievement, and integration as well as evaluation and reflection so that most of them feel irresponsible to apply it in the subjects they teach, they tend to state that literacy is the responsibility of the language teacher while numeracy is the responsibility of the math teacher. This finding from the survey is supported by the results of interviews with elementary school teachers and with junior high school teachers informing that teachers still have difficulty, especially in distinguishing content and context in literacy questions since they are not used to making questions across disciplines, as well as to develop questions with NA components in each subject. The cognitive process component in NA measures cognitive processes at various levels, but most teachers have not been able to develop questions with cognitive processes at a high level, especially the ability to evaluate and reflect. The lack of questions to measure high level cognitive is supported by data from the analysis of midterm and final term assessment documents where the questions are still dominated by items requiring low level cognitive process at the level of remembering and understanding. This results in students who are unaccustomed to doing NA questions and has an impact on students' literacy abilities which until now are still low. The ability to develop literacy and numeracy questions of teachers in Kuningan districts must be improved, considering that the ability of teachers to improve literacy and numeracy is not only through the learning process but must also be measured using appropriate assessments, as stated by some researchers that students' abilities will develop if there is a link between the learning process and assessment (Murtiyasa & Perwita, 2020; Reder et al., 2020).

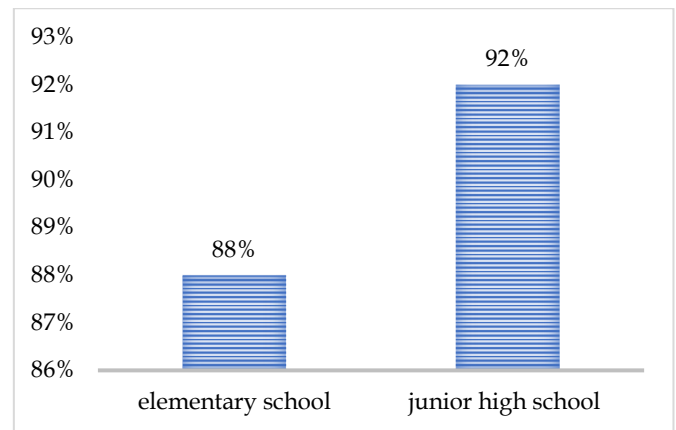
The national assessment is closely related to the government's efforts in developing skills needed in the 21st century, where the implementation of national assessment is expected to realize various skills that must be mastered by students. The learning process in the 21st century will emphasize several skills that are needed globally including critical thinking, problem-solving, creative thinking, communication and collaboration skills (Asad, et.,al, 2022). For that reason, the survey collects data related to teachers' understanding about the relation between national assessments and 21<sup>st</sup> century skills. The result depicted in Figure 8 informs that Junior high school teachers have a very good understanding (94%) of it, on the contrary the elementary school teachers have a poor understanding (34%). The high result from Junior high school teachers

is attributed to their understanding that implementation of national assessment must be followed by the change the learning paradigm, thus the implementation of national assessment not only emphasizes on learning outcomes in the form of literacy and numeracy but also focus on changing the learning process to help students developing capability in thinking, acting and behaving. The difference in the understanding between elementary and junior high school teachers on the relationship between national assessment and 21<sup>st</sup> century proficiency is largely influenced by professional proficiency training and the number of teachers who have taken the postgraduate level. Based on the results of the interview, it can be seen that most junior high school teachers know the importance of 21<sup>st</sup> century skills that must be provided to students through training held both at the regional and national levels. Based on the results above, there is a need for socialization and training on the role of NA in improving the quality of education, especially for elementary school teachers in Kuningan Regency.

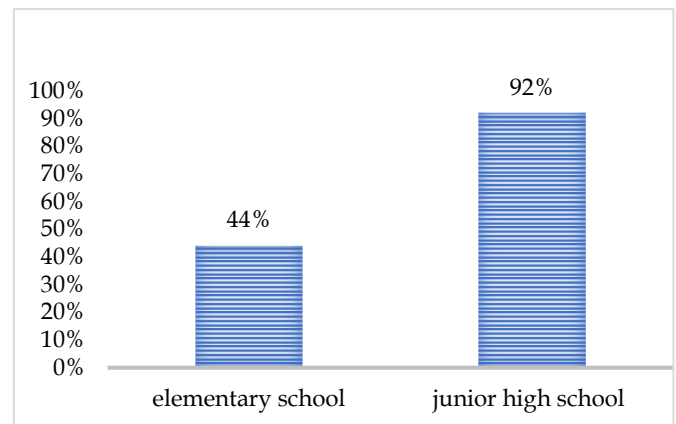


**Figure 8.** Linkage of National Assessment to 21<sup>st</sup> Century Proficiency

Questions on the indicator of teachers' ability to determine cognitive processes in the national assessment are answered correctly by a large number of teachers, in figure 9 it can be concluded that the knowledge of teachers, both elementary and junior high school teachers, is categorized as very good. This shows that teachers are able to recognize the cognitive processes needed in guiding their students to understand literacy and numeracy, and they already understood the meaning of every question of literacy and numeracy. However, this ability of teachers to determine cognitive processes in national assessments is not in line with teachers' ability to make literacy and numeracy questions. This information is obtained from the interviews when teacher state that they find it difficult to make literacy and numeracy questions, both in determining the content and the cognitive processes.



**Figure 9.** Characteristics of National Assessment Questions



**Figure 10.** Variety of Question Items

Furthermore, on the questions related to the indicators of various question items, based on the results of the research in figure 10, it can be stated that majority of elementary school teachers are not aware of the variety of national assessment questions, where they still state that the variety of national assessment questions consists of multiple choices, and only short fills, as well as the questions given in the National Examination. On the contrary, junior high school teachers already understand the variety of national assessment questions because most of them have participated in socialization about national assessment organized by the district office and through teacher deliberation activities. The teacher's understanding of the cognitive processes in national assessment questions and the teacher's understanding of variety of national assessment questions must be continuously socialized and assisted so that teachers can develop questions in the classroom assessment process to facilitate their students to be ready -to - face national assessment, thus the questions given in daily learning are expected to be able to measure various content, context, and several levels of cognitive processes (Umi et al., 2021). The role and contribution of teachers in schools to be able to implement national assessment a success is by familiarizing students with

contextual learning and the assessment process following daily life (Reder et al., 2020; Yamtinah et al., 2022).

## Conclusion

The implementation of national assessment requires preparation in the learning process and classroom assessment. Teachers must attain good understanding of the objectives, characteristics of national assessment questions, cognitive processes that must be implemented during the class assessment, as well as a learning process that facilitates students to face problems that are contextual and must be solved in a multidisciplinary manner in order for students to develop their capacity and to contribute productively to the society. Based on the results of this study, it is necessary to have training for elementary and junior high school teachers related to the development of national assessment questions, especially in determining the context, content, cognitive processes, and various question items. The training aims to enable each teacher to implement it in the classroom assessment so that students are accustomed to dealing with national assessment questions.

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## Author Contributions

Anna Fitri Hindriana, Asep Jejen Jaelani and Rio Priantama devised the project, the main conceptual ideas and proof outline.; Anna Fitri Hindriana and Ina methodology, Rio.; software, Anna Fitri Hindriana, Ina Setiawati, and Isnaeni Wulandari.; validation and formal analysis, Ina Setiawati. Isnaeni Wulandari.; investigation; Ina Setiawati, Isnaeni Wulandar.; data curation, Anna Fitri Hindriana, Isn and Isnaeni Wulandari.; writing – original draft preparation, Anna Fitri Hindriana and Ina Setiawati; writing – review and editing, Rio Priantama.; visualization, Anna Fitri Hindriana.; supervision, Isnaeni Wulandari.; project administration, Ina Setiawati.; funding acquisition. All authors have read and agreed to the published version of the manuscript.

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## Conflicts of Interest

The authors declare no conflict of interest and the funders had no role in the design of the study; in the collection, analyses, or

interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

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