



Evaluation and Restructuring of National Education Standards

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Abstract

The Indonesian government has emphasized the need for National Education Standards, which are a reference for the quality of education at every formal and non-formal level. National education standards are the minimum criteria for the education system in all jurisdictions of the Republic of Indonesia. After being established through Government Regulation No 19 of 2005 on National Education Standards, the national education standards need to be evaluated and, if necessary, restructured. The government regulation states that the national education standards should be improved in a planned, directed, and sustainable manner by the changing demands of local, national, and global life. Evaluation needs to be carried out on the national education standards as a whole, covering the eight components of the standards and reviewed from various aspects. Evaluating and restructuring the national education standards can be done by reducing the standard content indicators, simplifying the standard aspects, and reducing the standard components. Based on the results of this study, the author concludes that it is necessary to restructure the national education standards by reducing the number of standards to four: graduate competency standards, content standards, process standards, and assessment standards. At the same time, the other four standards can be considered not to be set as part of the national education standards because they are already regulated in the national education regulations.

Keywords: Evaluation, Indonesia, National Education Standards, Restructuring

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INTRODUCTION

Since 2003, the Government of Indonesia has decided on the need for National Education Standards, which are quality references at every level of education, both formal and non-formal. National Education Standards are minimum criteria regarding the education system in all jurisdictions of the Unitary State of the Republic of Indonesia. (Law number 20 of 2003 on the National Education System, article 1, paragraph 17).

For almost the past four decades, academic standards have been a defining focus of efforts to improve student achievement. The movement for high academic standards—determining what students should know and be able to do across subjects and grade levels—promised to center teaching and learning on common themes across schools and raise expectations for all students. Standards have shaped American schools' teaching and learning landscape, dictating everything from curriculum content to assessment design. (Sarah Schwartz, 2023).

Why are standards necessary? The underlying assumption of standards-based reform is that all students can meet high expectations. In a nation that has held students to varying academic expectations according to school quality and social class, many advocates saw standards as a foundation upon which excellence and equity could be built into the nation's public education system. (Sarah Schwartz, 2023). The essential components of the standards-based reform movement are setting rigorous academic

standards, measuring student progress against those standards, and holding students and educators accountable for meeting them. The education system needs standards because the standardization of national education is a political demand, a demand for globalization, and a demand for progress. Whether or not they have helped raise the quality of education remains a heated debate.

Standards-based education measures students' proficiency based on a set of standards, written descriptions of what students are expected to know and be able to do, that determine mastery. Within these standards, educators identify goals that students should learn and what students should be able to do. Through these content and cognitive behaviors, transparency is evident in all teaching and learning areas: curriculum, instruction, assessment, and reporting (Michele Honeycutt, 2022).

Education standards are uniform across grade levels, which helps teachers determine the subject matter they should teach. In addition, curriculum rigor and college and career readiness are top priorities when designing essential questions that help focus more on deeper, more complex, and higher cognitive skills.

Government Regulation 57 of 2021 concerning National Education Standards (article 3) states that the National Education Standards include graduate competency, content, process, education assessment, education personnel, facilities, infrastructure, management, and financing standards. Furthermore, article 3, paragraph 3 states that the National Education Standards are improved in a planned, directed, and sustainable manner to improve the quality of education to the changing demands of local, national, and global life. This evaluation and restructuring study of the National Education Standards can be interpreted as an effort to improve the National Education Standards.

In 2013, 2016, and 2022-2023, the Government changed four standards related to the curriculum: Content, Process, Graduate Competency, and Educational Assessment. Article 3, paragraph 2 of Government Regulation 57 of 2021 concerning National Education Standards states that National Education Standards are used as a reference for curriculum development and education implementation to realize national education goals. In line with this, National Education Standards aim to ensure the quality of national education to educate the nation's life and shape the character and civilization of a dignified nation. Thus, there is still a need for National Education Standards, which, of course, need to be reviewed for improvement.

After Indonesia had implemented National Education Standards in 2005, the question that is often raised and becomes the central question in this study is: Is there a need to standardize the eight components of education? Do standards already regulated in other related regulations still need to be standardized by the Minister of Education and Culture? Is each standard appropriate, and what should it be? Are schools able to fulfill all education standards? How do we measure the fulfillment of the standards?

METHODS

To answer the questions above, it is necessary to evaluate the National Education Standards, which includes eight standards and is reviewed from various aspects. Reducing standard content indicators, simplifying standard aspects, and reducing standard components can be used to evaluate and restructure the National Education Standards. The draft results of the evaluation and restructuring are then discussed with education experts.

RESULTS & DISCUSSION

Review of the Eight Standards

Graduate Competency Standards

Graduate competency standards are minimum criteria regarding the unity of attitudes, skills, and knowledge that show the achievement of students' abilities from their learning outcomes at the end of the education level (article 4 paragraph 1, PP number 57 of 2021 concerning National Education Standards).

The predetermined graduate competency standards will be the primary reference in developing other standards. In addition, other standards are developed and fulfilled to achieve the competencies of graduates from education units. Graduate competency standards are also used as assessment guidelines in determining student graduation from each education unit. Graduate competency standards include competencies for all subjects or courses.

Graduate competency standards are criteria regarding the qualifications of graduates' abilities. They are the results obtained through the learning process carried out by teachers (and students) based on curriculum content and are assessed holistically.

One focus of the graduate competency standards in secondary schools is to prepare graduates to become members of society who have the skills to live independently, work, and pursue further education. Thus, secondary education graduates must be prepared to master the skills needed.

According to The Future of Jobs Report 2020 by the World Economic Forum (2020), 15 skills are most sought after in 2025, namely (1) Analytical thinking and innovation; (2) Active learning and learning strategies; (3) Complex problem-solving; (4) Critical thinking and analysis; (5) Creativity, originality, and initiative; (6) Leadership and social influence; (7) Technology use, monitoring, and control; (8) Technology design and programming; (9) Resilience, stress tolerance and flexibility; (10) Reasoning, problem-solving, and ideation; (11) Emotional intelligence; (12) Troubleshooting and user experience; (13) Service orientation; (14) Systems analysis and evaluation; (15) Persuasion and negotiation.

Critical thinking is one of the skills required by the workforce in the future. Sekar Gandhawangi (2023) said that critical thinking skills need to be cultivated in students. Apart from being needed in the world of work, critical thinking skills are essential so students can respond to an issue thoroughly. To foster critical thinking, educational institutions need space for students to explore themselves, ask questions, and make mistakes.

This is by Mead's book entitled *Critical Thinking in the Classroom: A Practioner's Guide* (2018), "Children need to be taught how to think, not what to think." Therefore, the conclusion that can be drawn based on the above thoughts is that there is a need for fundamental and conceptual changes to the composition of National Education Standards that emphasize additional graduate learning outcomes, which include changes in terms of student paradigms, critical and more logical thinking, and more positive behavior.

Therefore, graduate competency standards must remain in place and be routinely evaluated and refined by the needs and developments in science and technology. Graduate competency standards must be able to meet the competencies of graduates who want to pursue further education or fill employment opportunities that continue to grow.

Content Standards

Content standards are minimum criteria that cover the scope of material to achieve graduate competencies in specific pathways, levels, and types of education (article 8, paragraph 1, PP number 57 of 2021 concerning National Education Standards). The scope of material referred to in the content standards is the study material in the learning content, formulated based on mandatory content by statutory provisions, scientific concepts, pathways, levels, and types of education.

As the name implies, content standards are only about the scope of material or subject content. At the same time, the level of competence, which is an elaboration of graduate competencies, is included in the graduate competency standards.

Academic standards—sometimes called content standards—describe what students should know and be able to do in the core academic subjects at each grade level. They can cover skills, such as adding and subtracting within 100, or content, like understanding the roles of the three branches of government. (Sarah Schwartz, 2023).

A content standard in education is a statement that can be used to judge the quality of curriculum content or as part of an evaluation method. K-12 standards should clearly describe the specific content that should be taught and learned during the K-12 years, grade by grade. Content standards articulate a core of knowledge and skills that students should master. Content standards can accomplish three primary goals: (1) Give students and teachers a clear and challenging target, (2) Help focus energy and resources on the bottom line: student achievement, and (3) Give all of us a tool for judging how well our students are learning and how well our schools are performing (<https://intime.uni.edu/content-standards>. 2020).

Polikoff (in Baez-Hernandez, 2019) postulated that the alignment of instruction, content standards, and assessments was necessary to connect educational policies such as standards-based reform with the required student proficiency levels. This connection would help to determine students' learning growth based on standardized assessments linked to schools' yearly academic progress. Alignment proved to be a critical factor in this literature review, which revealed it to be central for helping teachers understand the alignment process during professional development training. The alignment review comes from two main points of reference: (a) alignment between standardized assessments and state content standards and (b) alignment between classroom instruction and content standards (Baez-Hernandez, 2019).

Nationally enforced content standards containing the scope of material still need to be established for schools to use in developing learning materials.

Process Standards

Process standards are the minimum criteria for learning processes based on pathways, levels, and types of education to achieve graduate competency standards (article 10, paragraph 1, PP number 57 of 2021 concerning National Education Standards). Learning planning is generally an activity that formulates three things: learning outcomes that become the learning objectives of a learning unit, how to achieve learning objectives, and how to assess the achievement of learning objectives.

The learning process in education units is organized in an interactive, inspiring, fun, and challenging way that motivates students to participate actively and provides sufficient space for initiative, creativity, and independence following students' talents, interests, and physical and psychological development. Educators implement learning in schools by providing role models, assistance, and facilitation.

Sukartono (2020) stated that the era of the Industrial Revolution 4.0 also changed the perspective on education. The changes made are not only in the way of teaching but also far more essential, namely changes in the perspective on the concept of education itself. Education must at least be able to prepare students to face three things: a) prepare children to be able to work whose jobs do not currently exist; b) prepare children to be able to solve problems whose problems have not yet appeared, and c) prepare children to be able to use technology whose technology has not yet been invented. This is not easy homework in the world of education. Teachers must be able to prepare students ready to face future challenges.

The learning process in schools can vary significantly so that the standards set are not too binding and difficult to measure their fulfillment. Variations in the learning process are influenced by many factors, including student and subject characteristics, teacher abilities and skills, and school conditions. The learning process can involve strategies to achieve one student's competency. However, the learning process must be planned and implemented by applying the learning principles.

Finally, if this standard only concerns the implementation of the learning process, it can be considered not to set process standards. However, since these standards also include planning and assessment, it is necessary to set process standards.

Educational Assessment Standards

Educational assessment standards are minimum criteria regarding the mechanism for assessing student learning outcomes (article 16 paragraph 1, PP number 57 of 2021 concerning National Education Standards). The mechanism in question is a procedure for conducting assessments, which includes formulating assessment objectives, selecting and developing assessment instruments, conducting assessments, processing assessment results, and reporting assessment results.

Student learning outcomes must be assessed in accordance with the objectives of the assessment in an equitable, objective, and educational manner. The assessment of learner learning outcomes to determine graduation from an education unit is carried out through a mechanism determined by the education unit concerning the graduate competency standards.

In standards-based systems, which are increasingly common across countries, governments set standards for student attainment, clearly defining the knowledge and skills students are expected to attain at different educational stages. The curriculum covers the objectives identified in standards, and student assessments focus on attaining standards. The core logic of standards-based systems rests upon aligning these essential elements. If the assessments do not match the curriculum and standards well, then results have little value in judging how well students are learning and diagnosing school or student needs.

Test-based accountability systems are supposed to strengthen teachers' incentives to commit to helping all students meet necessary centrally defined standards and fulfill goals within the national curriculum.

Assessment is a process to determine the extent to which educational objectives are achieved or graduate competencies can be met, so assessment standards must still be applied.

Education Personnel Standards

The education personnel standard distinguishes between educators and education personnel other than (not) educators. Previously, the term educator was specific to teachers, while education personnel directly support the implementation of learning in schools, including librarians, laboratorians, and administrative staff.

Educator standards are the minimum criteria for competencies and qualifications possessed by educators to carry out their duties and functions as role models, learning designers, facilitators, and motivators of students (article 20 paragraph 1, PP number 57 of 2021 concerning National Education Standards).

Standards for education personnel other than educators are minimum criteria for the competencies possessed by education personnel other than educators by their duties and functions in carrying out administration, management, development, supervision, and technical services to support the education process in education units.

According to Carroll and Genea (2020), standards define the minimum level of practice acquired by trainees and teachers. These standards are used to assess all trainees working towards qualified teacher status who complete the induction period according to applicable regulations.

The minimum criteria for educator competence include pedagogic, personality, social, and professional competence. Meanwhile, education personnel's competence includes personality, social, and professional competence to support education in education units.

Of the four educator competencies, the competencies specifically concerning educators are professional and pedagogical competence. At the same time, personality and social competence must generally be possessed by everyone, especially working adults, whatever their profession. Likewise, the competencies of other education personnel can be reduced so that they only contain competencies that are specific and directly related to tasks in schools.

At least five teacher qualifications and competencies are needed in the world of education in the era of the Industrial Revolution 4.0. Qusthalani mentioned five competencies teachers must possess during the Industrial Revolution 4.0 era: 1) educational competence, internet-based educational/learning competency as basic skills. 2) competence for technological commercialization, having the competence to educate students to have an entrepreneurial attitude based on technology and students' work of innovation. 3) competence in globalization, a world without insulation, not stuttering about various cultures, hybrid competence, and problem-solver competence. 4) competence in future strategies: The world is easy to change and runs fast, so it has the competence to predict precisely what will happen and the strategies to deal with it. 5) competence counselor. The future that students will undertake has various psychological-related problems and stress due to increasingly complex and severe pressures, and teachers need to be able to act as counselors. (in Elizabeth Wahyu Margareth, Indira Agus Hermanto, Suwito Eko Pramono, 2019). So, if you want to improve the quality of education, the first thing to do is improve the quality of teachers.

The National Education Standards Agency's evaluation of the achievement of teacher competency standards in 2014 with 793 schools/madrasas in 26 provinces showed that the average fulfillment of teacher competency and professional standards was still low.

Table 1. The achievement of teacher competency standards

Teacher	Competence	Standard Fulfillment
SD	Pedagogy	62,0%
	Professional	55,3%
SMP	Pedagogy	73,2%
	Professional	61,3%
SMA	Pedagogy	75,3%
	Professional	66,0%

The government standards set by professional teachers should be implemented seriously. Standards are not abstract concepts that cannot be implemented in the classroom or at school. They must be achievable both according to students' development and the demands of scientific development in society.

Given that the qualifications and competencies of teachers are fully regulated in Law No. 14/2005 on Teachers and Lecturers, as well as Government Regulation number 74 of 2008 on Teachers (which has been amended through Government Regulation number 19 of 2017), it can also be considered not to set specific standards for educators and education personnel.

Facilities and Infrastructure Standards

Facilities and infrastructure standards are the minimum criteria for facilities and infrastructure that must be available in education units to implement education (article 25 paragraph 1, PP number 57 of 2021 concerning National Education Standards). Facilities are anything that can be used as tools and equipment to achieve learning objectives. Meanwhile, infrastructure is a basic facility needed to carry out the functions of an education unit.

Facilities and infrastructure must be available in education units and adapted to the needs of each pathway, level, and type of education. The existing facilities and infrastructure standards are too detailed and must be simplified. Meanwhile, in carrying out the learning process, the education unit does not have to own all the facilities needed because it can cooperate with other institutions to utilize existing facilities.

Teachers and students need learning facilities the most in the education process. Thus, the requirement to use these facilities can be included in the process standards.

The requirements for building construction are regulated in Law No. 28 of 2002 on Building and several related regulations, including Government Regulation No. 36 of 2005 on Building Implementation Regulations, Minister of Public Works Regulation No. 29/Prt/M/2006 on Guidelines for Building Technical Requirements, and Minister of Environment Decree No. 02/MENKLH/1988 on Guidelines for Determining Environmental Quality Standards.

The technical requirements of school buildings must already be met at the time of establishment, and the Building Construction Permit (IMB) is granted by the designation of the planned building. Thus, the completeness of school infrastructure can be stipulated as an operational permit requirement, while learning facilities can be integrated into the process standards.

Thus, school facilities and infrastructure standards do not have to be explicitly set.

Management Standards

Management standards are the minimum criteria regarding the planning, implementation, and supervision of educational activities carried out by educational units so that the implementation of education is efficient and effective (article 27, paragraph 1, PP number 57 of 2021 concerning National Education Standards). These educational activities are planned, implemented, and supervised by implementing school-based management as indicated by independence, partnership, participation, openness, and accountability.

Educational management, while guiding planned change, must be responsive to unplanned, disruptive change created by rapid changes in social structures and cultures and advances in digital technologies. Effectively and innovatively managing change is the primary challenge facing educational management locally, regionally, and globally in the decades ahead (Richard Lynch et al., 2022).

Management is a series of coordinating activities, including planning, organizing, directing, controlling, placing, and making decisions to produce an effective and efficient product and service.

In planning, the institution's vision, mission, goals, and work plans are formulated and determined. In implementation, existing guidelines and regulations are used to carry out activities by the division of tasks and responsibilities contained in the organizational structure. In monitoring and evaluation, there must be a program for monitoring, self-evaluation, development, and utilization of human resources. School leaders control this by utilizing technology in implementing information and management systems.

Standardized management applies to all institutions, not specifically to educational institutions. Management, which includes planning, implementation, and supervision, is also carried out in other institutions. Thus, management standards do not have to be explicitly set for schools.

Financing Standards

Financing standards are minimum criteria regarding the components of education financing in education units (article 32, paragraph 1, Government Regulation number 57 of 2021 concerning National Education Standards). Education financing consists of investment costs and operational costs. Investment costs include components of land investment costs, provision of facilities and infrastructure, provision and development of human resources, and fixed working capital. Operational costs include personnel costs and non-personnel costs.

The Ministerial Regulation on Nonpersonal Operating Cost Standards was established in 2009 through Permendiknas number 69 of 2009. Since the financing standard also sets the cost amount, it must be set annually by price changes. However, since 2009, the standard has never been updated, even though it is only valid for one year.

The costs required by each school to organize each activity vary considerably, whereas the learning process can produce the same quality with unequal costs. There can also be activities in a school that can be carried out without spending money, while in other schools, carrying out the same activities requires money.

In general, it can be said that money spent wisely significantly impacts positive student outcomes.

The research documents that resource investments matter for student outcomes, mainly when directed to under-resourced districts and students from low-income families. Some research suggests that increasing and equalizing school funding may be most effective when it is part of a comprehensive set of efforts to improve teaching and learning.

Schooling resources that cost money are positively associated with student outcomes (Baker, Bruce D., 2018, p.1). These include smaller class sizes, additional instructional supports, early childhood programs, and more competitive teacher compensation, which permits schools and districts to recruit and retain a higher-quality teacher workforce (Baker, Bruce D., 2018).

When planning a program, whether medium-term or short-term (annual), every school must take into account the costs required according to its needs and capabilities.

Although the amount of money available is essential and influences educational outcomes, financing standards do not have to be explicitly set for schools. Of course, schools must plan, use, and be accountable for their finances by existing financial regulations.

Fulfillment and Measurement of National Education Standards

National Education Standards are often interpreted in the same way as education unit standards, so education units must fulfill all matters stipulated in government regulations on National Education Standards. Some standards set through ministerial regulations also regulate many things local governments must fulfill. For example, the standard of educators and education personnel regulates school supervisors, the standard of facilities and infrastructure regulates the number of schools in each region, the standard of management regulates the management of education by district/city governments, provincial governments, and the central government, and the standard of assessment also regulates assessment by the government.

Thus, schools must not meet all National Education Standards. In other words, education unit standards only include standards that are required to be met by education units, namely schools and madrasahs.

Furthermore, are all standards that must be met in education units the responsibility of education unit managers? There are at least three standard components whose fulfillment cannot be done alone by the education unit manager. The managers here are principals, teachers, and administrative staff who take care of the daily activities in the education unit. For example, to provide a certain amount of funds to fulfill the financing standard, it is not the responsibility of the education unit manager but the Education Office for Public Schools, the Ministry of Religion for Madrasah, and the Foundation for Private Schools/madrasahs. The same applies to fulfilling the number of educators and education personnel with the required academic qualifications. The last is the standard of facilities and infrastructure, the fulfillment of which is not the responsibility of the education unit manager but of the education organizer. Education unit managers are responsible for utilizing and maintaining or caring for facilities and infrastructure.

One of the standards' demands is that the education process should work for different groups of learners. If learners decide to work after the age of compulsory education, they must be guaranteed that they will succeed in their jobs. Similarly, the group that will continue their education at the university level must be guaranteed that they will succeed in studying knowledge at the university level.

According to Heru Triyono N. (2018), a standard is a provision that regulates the minimum target about something (e.g., product or process) that must be met by the subject subject to the standard. The basic assumption is that this target is achievable. For this reason, it is necessary to provide a device that can measure the achievement of these standards with precision and accuracy to determine which subjects have reached the standard and which have not. If analogous to the law, a good law is useless if it is not implemented (fulfilled or obeyed) and not enforced.

Furthermore, how do we measure the fulfillment of standards? Has the accreditation program been able to assess the fulfillment of National Education Standards? At least two standards are difficult to measure through accreditation programs, namely process standards and graduate competency standards.

So far, assessing the fulfillment of process standards in accreditation activities has focused more on planning and assessing the learning process. In contrast, the assessment of the implementation of the learning process only observes a minimal sample of classes, generally observing one meeting in two classes out of many meetings and classes or study groups in one school. It is difficult to conclude the quality of the learning process in one school if it is only based on a small sample.

Assessment of the fulfillment of graduate competency standards is not easy because the accurate assessment must be done after graduates follow further education or enter the world of work. Whether graduates can follow further education well or work well. The abilities in question include the attitudes, knowledge, and skills needed according to where the graduate is at that time. Thus, assessment of the fulfillment of graduate competency standards is insufficient through the accreditation program, even through graduation exams conducted at schools before students are declared graduates.

The results of Asrijanty's research (2019) concluded that there is a positive relationship between school accreditation and national exam results. The modest correlation between the two variables is understandable, given that school is only one factor that influences student achievement. Other factors, such as student mindset and behavior, are also important factors that affect student achievement.

The research results by Sapto Irawan, Umbu Tagela, and Yustinus Windrawanto (2020) concluded that there is a relationship between school accreditation status and school quality. However, the nature of the relationship is low. Thus, a school's accreditation rating is not enough to be used as an indicator of school quality.

CONCLUSION

Based on the results of this study, the author concludes that it is necessary to restructure the National Education Standards by reducing the number of standards to four: content standards, process standards, graduate competency standards, and assessment standards. The other four standards can be considered not to be set as part of the education standards due to various considerations, among others, about the standards of educators and education personnel and standards of facilities and infrastructure that have been regulated in separate regulations, about management standards that do not apply only to education, and about financing standards that vary significantly between schools and can change at any time. The fulfillment and assessment of school quality should be carried out only on matters that are the authority of the school, not including the obligations or authority of the institutions above it, namely the Education Office, the Ministry of Religious Affairs, or the Foundation. In addition, the fulfillment of graduate competency standards needs to be assessed on alumni or graduates from each educational unit.

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