

Imbalance of Cognitive and Psychomotor Assessment on Student Learning Motivation in State High Schools

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Keywords:	Abstract
<i>Cognitive Assessment, Psychomotor Assessment. Learning Motivation, Holistic Evaluation</i>	<i>This study examines the impact of the imbalance between cognitive and psychomotor assessment on student learning motivation at State Senior High School 1 Kajen. Using a qualitative approach, data were collected through observation and interviews with students active in non-academic activities. The data analysis technique used three stages: data reduction, data display, and description/verification of conclusions. The study results indicate that an excessive emphasis on cognitive achievement in the formal assessment system causes students who excel in psychomotor skills to feel unappreciated, negatively impacting their learning motivation. This non-holistic assessment can hinder students' development, especially in character building and life skills. This study emphasises the importance of a balanced educational evaluation system that recognises students' contributions in various domains, both academic and non-academic. The uniqueness of this study lies in its emphasis on the need to redefine indicators of educational success to be more inclusive and humanistic.</i>
Kata Kunci: Penilaian Kognitif, Penilaian Psikomotorik, Motivasi Belajar, Evaluasi Holistik	Penelitian ini bertujuan untuk mengkaji dampak ketidakseimbangan penilaian antara aspek kognitif dan psikomotorik terhadap motivasi belajar siswa di Sekolah Menengah Atas Negeri 1 Kajen. Melalui pendekatan kualitatif, data dikumpulkan menggunakan teknik observasi dan wawancara terhadap siswa yang aktif dalam kegiatan non-akademik. Teknik analisis data menggunakan tiga tahap: Pengurangan data, tampilan data, dan penggambaran/verifikasi kesimpulan. Hasil penelitian menunjukkan bahwa penekanan berlebihan pada capaian kognitif dalam sistem penilaian formal menyebabkan siswa yang unggul dalam keterampilan psikomotorik merasa tidak dihargai, sehingga berdampak negatif pada motivasi belajar mereka. Penilaian yang tidak holistik ini berpotensi menghambat perkembangan siswa secara menyeluruh, terutama dalam pembentukan karakter dan keterampilan hidup. Penelitian ini menegaskan pentingnya sistem evaluasi pendidikan yang seimbang dan mengakui kontribusi siswa dalam berbagai ranah, baik akademik maupun non-akademik. Keunikan penelitian ini terletak pada penekanan terhadap perlunya redefinisi indikator keberhasilan pendidikan agar lebih inklusif dan humanistik.



1. Introduction

Education is an investment that is very important in order to face an increasingly complex and evolving world like today (Siregar et al., 2022). The development of the times requires the world of education to adapt to the needs of the times. According to Ulfah & Arifudin (2021), it is stated that the change of the times has an impact on developing science, so the process of implementing education must follow the needs and developments of the times (Ulfah & Arifudin, 2021). Students are said to have succeeded in learning if they can develop their abilities, knowledge, and attitude (Daley et al., 2025). Some of the domains that students must possess are cognitive and psychomotor aspects. The cognitive realm is concerned with intellectual learning outcomes, while the psychomotor realm is concerned with skills and the ability to act.

Educational psychology plays a central role in supporting the success of holistic assessment (Sipahutar et al., 2025). As a discipline that studies the learning process, development, motivation, classroom interaction, and evaluation, educational psychology helps teachers understand the characteristics of students and design effective learning strategies (Daumiller & Meyer, 2025). This understanding is important so that assessment instruments not only measure cognitive aspects, but also psychomotor and affective aspects, through valid, trustworthy instruments that reflect students' complete competencies.

Cognition is all a person's activities related to the teaching and learning process in understanding an event and then becoming an understanding of it (Silaji & Extension, 2024). Cognition can also be defined as all mental activities that enable an individual to connect, assess, and consider an event, resulting in the individual receiving knowledge afterwards (Mauda & Arsyad, 2021). Therefore, cognition cannot be separated from a person's intelligence. Cognitive factors have an important role in learning success, because most learning activities are always related to remembering and thinking. Thus, cognitive is closely related to a person's level of intelligence.

Psychomotor is an aspect that is closely related to skills after a person has received a specific learning experience. Psychomotor is related to learning outcomes achieved through skills due to the achievement of knowledge competencies (Marcelina et al., 2024). In line with the research conducted by Ulfah & Arifudin (2021), the psychomotor realm is a realm related to aspects of skills that involve the functioning of the nervous and muscular system and psychic functions (Ulfah & Arifudin, 2021). This psychomotor realm is related to physical activity, such as writing, hitting, jumping, etc. Therefore, psychomotor skills are related to human physical activity, or psychomotor skills are an aspect that emphasises a person's motor skills more.

The cognitive aspects related to the ability to think and understand, and the psychomotor aspects related to physical skills and movement coordination, play an important role in creating a well-rounded learning experience (Shinta et al., 2025). Learning that only emphasises cognitive aspects without being balanced with psychomotor skills can make students feel monotonous and less motivated

because they do not see the relevance between theory and practice (Akbar et al., 2025). Conversely, excessive focus on psychomotor aspects without adequate cognitive understanding can decrease motivation because students do not feel intellectually developed.

Learning is an activity that is deliberately carried out so that there is a change in one's ability. By learning, individuals who initially did not know or were not skilled become knowledgeable and skilled (Hartmann et al., 2023). A person initially unaware or unskilled will become knowledgeable and skilled through learning. Teaching is the interaction process between educators and students and learning resources in the educational environment (Azani et al., 2024). In this process, learning functions as an aid provided by educators so that students can gain knowledge and mastery of the necessary skills.

Motivation has an important role in improving student learning outcomes. Motivation can affect students' levels of engagement in learning and their success in achieving educational goals (Utami et al., 2024). Students' involvement can influence self-learning motivation in meaningful learning processes, both cognitively and psychomotorically. Students who feel capable and successful in both aspects will be more motivated to continue learning and developing.

The cognitive aspect is related to thinking, understanding and solving problems. Meanwhile, the psychomotor aspect is related to physical or motor skills and activities that require coordination of movements (Daley et al., 2025). If learning only emphasises cognitive aspects without being balanced with psychomotor skills, students can feel that learning is monotonous, less relevant, and meaningless. This can lower their interest and motivation to learn because they do not see the connection between theory and practice in real life. Conversely, if the psychomotor aspect is more dominant without adequate cognitive understanding, students may be able to perform tasks physically but not understand the concepts behind the activity. It can also decrease motivation because students do not feel intellectually developed or cannot solve more complex problems.

Effective learning is not only determined by the content of the material taught, but also greatly influenced by the strategies, approaches and methods teachers use in the learning process (Sukatin et al., 2022). When teachers can create learning situations that are engaging, contextual, and in accordance with the needs of students, then learning motivation and student involvement will increase. Many students have difficulty understanding the subject matter because the learning process takes place conventionally and is teacher-centred, so learning becomes less meaningful, and students tend to be passive (Salsabila, 2024).

This research shows that balanced cognitive and psychomotor development will produce better learning outcomes, because students can understand concepts cognitive and at the same time be able to apply them in real situations psychomotor. The imbalance between the two will lead to non-optimal learning outcomes and ultimately impact students' motivation to learn further. In short, the imbalance of cognitive and psychomotor aspects prevents students from getting a complete learning experience, so that their motivation to learn can decrease because they feel that learning is irrelevant, less challenging or not in accordance with their needs.

2. Methods

The methods used in this study were qualitative observation and interviews. This research was conducted at State Senior High School (SMAN: *Sekolah Menengah Atas Negeri*) 1 Kajen. The researcher used the interview technique as a method of data collection. Interviews are conducted through direct interaction between researchers and respondents, where researchers ask pre-arranged questions to dig into in-depth information related to the topic being studied. This technique allows researchers to obtain more detailed, contextual, and reflective data because respondents can explain their experiences, views, and understandings directly and openly. The interviews were conducted to dig deeper into their learning experiences, particularly related to cognitive and psychomotor assessments and their influence on learning motivation. The resource persons showed a high commitment to developing potential outside of academic activities, but the awards given by the school system tended to be limited to cognitive achievements alone.

In this study, observation techniques are carried out through four main stages, namely Selection, alteration, recording, and coding. The research observation was carried out for five days, and interviews were conducted three times. Data mining was obtained from students, counselling guidance teachers and the principal of SMAN 1 Kajen. Qualitative observation is used to understand the background with different functions, such as objective, interpretive, interactive, and interpretive grounded (Hasanah, 2017). The data analysis technique in this study uses three stages: Data reduction, data display, and conclusion-delineation/verification (Huberman & Michael, 1992).

3. Result and Discussion

Students who use the overnight speed system (SKS: *sistem kebut semalam*) learning strategy can achieve high exam scores, but experience fatigue, difficulty maintaining long-term understanding, and low time management and motivation for continuous learning (Octavia & Amalia, 2023). This shows that high learning outcomes do not always reflect the quality of learning, and can signal an imbalance in teachers' learning approach. An effective learning process must reflect the achievement of learning objectives that integrate cognitive, affective, and psychomotor aspects. When the assessment instrument does not follow the principles of correct question preparation, the measured learning outcomes do not reflect the expected behavioural changes from the learning process.

3.1. Imbalance in Learning Outcomes and Assessment Domains

Introducing several ideas and concepts to describe and explain the changes in logical thinking that he observes in children and adults can have a positive impact. Cognitive development starts from concrete thought processes to higher ones, namely abstract and logical concepts (Marinda, 2020). Piaget believed that children are naturally interested in the world and actively seek information to help them understand it. As an expert who has researched the level of human cognitive development, Piaget stated in his theory that human cognitive ability consists of four stages, from birth to adulthood. Cognitive assessment is an activity carried out to measure students' mastery of knowledge. The goal of the cognitive aspect is oriented to thinking skills, which include the ability to solve problems that require students to connect and combine some ideas, methods, or procedures learned to solve the problem (Putri et al., 2022).

Psychomotor assessment includes abilities related to physical activity, such as movements, actions, or skills that require coordination between the central nervous system and the body's muscles (Buzescu et al., 2021). In students, the psychomotor aspect is one of the most important aspects for a teacher to know. Psychomotor abilities are related to motor skills related to limbs or actions that require coordination between nerves and the brain (Saputri et al., 2024). Psychomotor learning outcomes are actually a continuation of cognitive learning outcomes. Cognitive learning outcomes will become psychomotor learning outcomes if students have shown certain behaviours or deeds in accordance with the meaning contained in the cognitive realm (Zainudin & Ubabuddin, 2023).

There are key findings when non-academic activities that require high psychomotor skills are not proportionately reflected in formal assessments, such as report cards or grade rankings. Activities outside the classroom that develop discipline, strategy, concentration, and teamwork often do not get a fair assessment. For example, when a student does not complete an assignment because he is participating in a legitimate school activity, his grades remain blank without considering other contributions that are also important in forming students' character and competence.

The results of research and observations in schools show that cognitive aspects still dominate learning outcomes assessment, while affective and psychomotor aspects are often ignored. These three domains, cognitive, affective, and psychomotor, are inseparable in the entire educational process. However, in practice, assessment instruments developed by teachers in the field still focus more on the cognitive domain, such as written tests or objective exams. In contrast, affective (attitude, moral, ethical) and psychomotor (practical skills) assessments are rarely carried out or completely ignored. This is as conveyed by the Indonesian Subject Teacher:

"Assessments at our school are still very focused on cognitive aspects, such as written tests and objective exams. Affective and psychomotor assessments are seldom carried out systematically. In fact, these aspects are crucial to shaping students' character and skills as a whole."

Motivation is one of the most important dynamic aspects in the learning process. It often happens that students who do not achieve well are not due to their lack of ability, but because there is no motivation to learn, so they do not try to direct all their abilities. Learning motivation is a state that exists in an individual where there is an urge to do something to achieve a goal. Motivation is a series of efforts to provide certain conditions, so that a person wants to do something, and if he does not like it, he will try to eliminate or avoid the feeling of dislike. External factors can stimulate motivation, but that motivation grows inside a person. The environment is one of the external factors that can foster motivation in a person to learn.

Cognitive learning strategies can be a regulation of individual efforts to carry out resilient learning activities in order to achieve learning goals. Cognitive learning strategies are based on self-regulated learning involving cognitive processes, namely receiving, managing and recalling information in students' memories. Students with high instinctive learning motivation do not necessarily achieve high learning achievement if they do not use cognitive learning strategies well. Motivated learners will use cognitive learning strategies to increase their

desire to start and direct their learning activities to achieve the expected learning goals. The cognitive learning strategy is then achieved through conscious and deliberate efforts by managing or directing the learning process using cognitive learning strategies.

One speaker shared his experience participating in class meeting activities as part of the Student Council. At that time, he did not have time to make sports videos because his time was spent preparing and implementing the competition. In fact, in the class meeting, he actually became part of the school basketball team that was competing, an activity that clearly required high commitment and psychomotor skills. However, the basketball coach blanked his report card scores because his video assignments were not collected on time. He was surprised that his contribution to school activities that were legitimate and relevant to the material was not considered. For him, even though his grades are not perfect, at least he can still be given an assessment as a form of appreciation for his efforts. This is as conveyed by the counselling guidance teacher:

"We often face situations where students who are active in sports activities cannot complete academic assignments on time due to having to practice or compete. However, their grades remain blank without considering their contribution to the activity. In fact, the psychomotor skills and teamwork they show are critical and should be recognised in the assessment."

Conditions like this certainly raise significant questions about the true purpose of education. Suppose education aims to form a complete human being who is intellectually intelligent, skilled, tough, and characterful. In that case, it is appropriate that all aspects of student development be appreciated and recognised. When assessments only highlight the academic side, active, creative students who contribute significantly to activities outside the classroom will feel that their efforts are in vain. They are like being in a space that does not give room for their true strength and potential. This is as conveyed by the students:

"I felt disappointed when my assignment grades were blanked because they were not collected on time, even though I was participating in a basketball game that required high commitment and skill. I hope the school can see our efforts and contributions outside the classroom, not just academic grades."

Students active in sports, arts, leadership, or social activities often can manage time, face pressure, work together, and even think strategically. All of these are important provisions in real life. However, because it is not reflected in the numbers on the report card, that ability is often considered less important. As a result, students can feel disappointed, lose enthusiasm, and even question the meaning of their hard work.

The resource person hoped the school assessment system would be more holistic. They consider that processes, consistency, and achievements in the psychomotor field should be recognised and rewarded on par with academic achievements. This imbalance impacts the spirit of learning and can lead to feelings of injustice and loss of motivation, especially when efforts and achievements outside the classroom are ignored. The inequality between cognitive and psychomotor assessments can be a serious obstacle in encouraging overall student growth and development, especially for those with great potential outside of academia. Therefore, educational institutions need to start designing an

evaluation system that is not only oriented to numerical scores, but can also represent all aspects of student development. The principal said:

"We realise that implementing the Independent Curriculum requires a more holistic assessment, but the challenges in the field are still large. Teachers need further training to develop assessment instruments that accommodate cognitive, affective, and psychomotor aspects in a balanced manner."

One of the significant steps taken by the government is the implementation of the Independent Curriculum. However, implementing the Independent Curriculum in various educational units faces challenges, especially balancing assessments between the cognitive and psychomotor domains. Research at SMA Negeri 1 Palipi, for example, shows that although there has been an increase in student participation in project learning and skills-based activities, the assessment system still dominantly accommodates the cognitive aspect alone (Shinta et al., 2025). This shows a gap between the spirit of the Independent Curriculum and the reality of its implementation in the field.

4. Conclusion

This study confirms that the imbalance between the assessment of cognitive and psychomotor aspects in the education system, especially in SMAN 1 Kajen, impacts students' learning motivation. Students who excel in non-academic activities tend to feel unappreciated because their contributions are not reflected in a formal grading system that places more emphasis on academic achievement. This condition not only affects the spirit of learning but also has the potential to hinder the development of character and life skills that should be an integral part of the educational process. Therefore, a more holistic and inclusive evaluation system is needed to proportionately accommodate all students' potential. Education should pursue numbers and appreciate the process and diversity of student achievement in various fields.

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