Evaluating Kindergarten Teachers' Assessment Practices: Analyzing Methods, Instruments, and Challenges, in the Era of the Merdeka Curriculum

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Abstract. As early childhood education shifts towards holistic development, assessment practices play a pivotal role in bridging curriculum goals and student growth. However, in the context of Indonesia's *Merdeka* curriculum, the question arises: Are teachers equipped to implement assessments that align with the ambitious vision of the Pancasila Student Profile (P3)? This study investigates the assessment practices of kindergarten teachers in implementing the *Kurikulum Merdeka*, focusing on methods, instruments, and challenges in aligning with the Pancasila Student Profile (P3) dimensions. Utilizing a mixed-methods approach, data were collected through surveys from 45 kindergartens and in-depth focus group discussions (FGDs) and interviews with teachers from Medan City and Deli Serdang Regency. The findings reveal that while observation, sequential image assessments, and anecdotal records are popular methods, their application often lacks alignment with curriculum goals. Teachers face significant challenges in designing effective instruments, frequently relying on pre-made checklists and forgoing rubrics, which compromises the validity and reliability of assessments. The misinterpretation of the curriculum's "freedom" principle further results in vague and unmeasurable learning objectives, exacerbating inconsistencies in assessment practices. Moreover, the absence of monitoring and feedback mechanisms limits opportunities for professional growth and innovation, undermining the potential of the curriculum to transform early childhood education. The study highlights the need for systemic interventions, including targeted teacher training, the provision of structured resources such as rubrics and indicators, and the establishment of robust institutional validation systems. These findings have implications for policy, particularly in creating measurable benchmarks similar to the *Standar Tingkat Pencapaian Perkembangan Anak (STTPA)*, to ensure coherence between assessment practices and developmental goals. This research underscores the critical role of structured and validated assessment systems in realizing the transformative goals of the *Merdeka* curriculum.

Keywords: Evaluation, Pancasila Student Profile, Problem Based Learning, P5, assessment in early childhood education

1 Introduction

The curriculum serves as a vital tool in delivering quality education, functioning as both a blueprint and a mechanism for achieving educational goals [1], [2]. It defines what is taught,

how it is taught, and the outcomes that learners are expected to achieve [3], [4]. In Indonesia, curriculum reform has been an ongoing effort to align educational practices with societal needs and global standards [5], [6]. After several iterations, Indonesia has introduced the latest curriculum known as the *Kurikulum Merdeka* (*Freedom* Curriculum) [7]. This curriculum is designed to provide greater flexibility for schools and educators while promoting holistic and contextual learning experiences [8]. One of its most significant innovations is the introduction of the Pancasila Student Profile (*Profil Pelajar Pancasila*), a framework aimed at shaping the ideal character and competencies of Indonesian students [9], [10], [11].

The *Profil Pelajar Pancasila* (P3) serves as a philosophical foundation for the curriculum, grounded in Indonesia's national ideology, Pancasila [11], [12], [13]. It outlines six essential characteristics that embody the values and aspirations of the nation. These traits include (1) being faithful and pious to God Almighty with noble character; (2) independent; (3) collaborative (*gotong royong*); (4) global diversity (*Kebhinekaan*); (5) critical thinking, and (6) creative [14], [15]. This framework not only reflects the cultural and moral values of Indonesia but also aligns with global educational trends that emphasize character education and 21st-century skills [7], [8], [16], [17]. By integrating these traits into educational practices, the *Merdeka* curriculum aims to nurture students who are both rooted in Indonesian values and capable of addressing global challenges [18]. Moreover, a key feature of the curriculum is the incorporation of inter-curricular activities known as Pancasila Student Profile Reinforcement Projects (*Proyek Penguatan Profil Pelajar Pancasila*) [10], [19], [20], [21]. This type of projects is designed to foster the six key traits outlined in the P3 through experiential and collaborative learning activities. Grounded in the principles of project-based learning (PBL), these projects encourage students to engage in meaningful tasks that require critical thinking, problem-solving, and teamwork [22], [23]. As widely known that PBL is rooted in constructivist theories of learning, which emphasize active participation and the construction of knowledge through real-world experiences [24], [25]. By engaging in these projects, students are encouraged to connect theoretical knowledge with practical applications, fostering deeper understanding and skill development [26]. Furthermore, this constructivist approach that is embedded in the *Merdeka* curriculum aligns with global educational trends that prioritize student-centered learning [21], [27], [28], [29]. Unlike traditional models that rely heavily on rote memorization and teacher-led instruction, PBL shifts the focus to the learner, empowering students to take an active role in their education [26], [30], [31]. This approach has been shown to enhance critical thinking, creativity, and collaboration skills, which are essential for success in the 21st century [31], [32], [33], [34]. Consequently, the emphasis on real-world applications helps students develop a sense of agency and responsibility, preparing them to contribute meaningfully to their communities and the broader global society [24], [28], [35], [36]. Therefore, the *Proyek Penguatan Profil Pelajar Pancasila* (P5) also aligns with Indonesia's vision of fostering national identity while embracing global diversity. By participating in projects that address local and global issues, students are encouraged to develop a sense of empathy and social responsibility [37]. For instance, projects may involve environmental conservation initiatives, cultural heritage preservation, or community service activities. These experiences not only reinforce the values of Pancasila but also cultivate a mindset of global citizenship, enabling students to appreciate and navigate cultural differences while contributing to sustainable development [38].

In order to ensure that every dimension of the P3 is to be effectively cultivated, each has been structured with defined elements, sub-elements, and final phase objectives tailored to each educational level [9], [20], [22], [39], [40], [41], [42]. For example, within the Independent dimension, there are two key elements, each consisting of several sub-elements with

corresponding expected outcomes, as illustrated in the table below:

Table 1. Structure of Element, Sub-Element, and Achievement of Independent Dimension in the P3

No	Element	Sub-Element	Final Phase Achievement
1	Understanding oneself and the situations encountered	Recognizing qualities and interests, challenges faced	Recognizing one's abilities, challenges, and uniqueness, and describing learning experiences both at home and school.
		Self-reflection	Describing their learning experiences both at home and at school.
2	Self-regulation	Emotional regulation	Recognizing emotions experienced and the situations that triggered them, and starting to learn how to express emotions appropriately.
		Achievement of learning goals, achievements, and strategies to achieve them	Describing activities undertaken to achieve the specified goals.

In the context of early childhood education, the implementation of project-based learning (PBL) as part of the P5 is an innovative approach that reflects both educational reform and cultural integration [16]. This initiative is centered around four major government-determined themes: (1) I Love Earth (*Aku Sayang Bumi*), which emphasizes environmental stewardship and sustainability; (2) I Love Indonesia (*Aku Cinta Indonesia*), which fosters national pride and cultural appreciation; (3) Playing and Collaborating/We Are All Family (*Bermain dan Bekerja Sama/Kita Semua Bersaudara*), which promotes social skills and unity; and (4) My Imagination and Creativity (*Imajinasiku/Imajinasi dan Kreativitasku*), which encourages creative expression and innovation [16], [43]. While these themes provide a structured framework, the specific activities within each theme are intentionally flexible, allowing schools and teachers to design projects that are contextually relevant and tailored to the needs of their students. This adaptability reflects the constructivist underpinning of PBL, wherein students actively construct knowledge through experiences that are meaningful and engaging [23], [44].

A notable feature of the PBL approach in this framework is the involvement of various stakeholders. Some schools take a collaborative approach by involving parents and students in the planning and execution of projects. This practice aligns with research emphasizing the role of parental engagement in fostering a supportive learning environment and enhancing students' motivation and achievement [45]. However, the extent of parental involvement varies, and in many cases, the process is solely teacher-led, which may limit opportunities for broader community engagement [46], [47].

Assessment plays a pivotal role in the implementation of these projects, serving as a tool for monitoring both process and outcomes [48], [49], [50], [51]. The assessments used in this context are designed to function as both *assessment for learning* (AfL) and *assessment as learning* (AaL) [52]. AfL focuses on using assessment data to guide instructional decisions and provide feedback that supports student learning, while AaL emphasizes students' active involvement in self-assessment and reflection to foster lifelong learning skills [53], [54]. This dual purpose ensures that assessments are not merely evaluative but also formative, promoting deeper learning and skill acquisition [49], [50], [55].

Despite the innovative potential of this approach, limited research has explored the specific practices teachers employ when assessing project-based learning within the P3 framework. Existing studies on PBL highlight challenges such as the need for teacher training, the

complexity of designing meaningful assessments, and the time-intensive nature of the approach. These challenges are compounded in the Indonesian context, where disparities in resources and teacher competencies can influence the quality of implementation. Therefore, this study aims to address these gaps by examining the assessment practices employed by teachers, evaluating their effectiveness, and identifying the challenges they face in implementing PBL within the P3. By doing so, it seeks to contribute to the broader discourse on effective assessment practices in PBL and provide insights for improving the implementation of the *Merdeka* curriculum.

2   Research Method

This study employed a mixed-methods approach to thoroughly explore and understand teachers' assessment practices during project-based learning (PBL) within the framework of the *Merdeka* curriculum. Mixed methods were chosen because they allow for a comprehensive analysis by integrating quantitative data, which provides breadth, with qualitative data, which offers depth [56]. This approach is particularly valuable in education research, where understanding both general trends and contextualized experiences is essential to addressing complex phenomena such as assessment practices. The study began with an online survey administered to 45 kindergartens located in Medan City and Deli Serdang Regency. The survey aimed to gather quantitative data on the methods, instruments, and techniques used by teachers during PBL. Surveys are an efficient method for capturing broad patterns and trends in large populations [57], making it an appropriate tool for exploring the diverse assessment strategies employed under the *Merdeka* curriculum. Following the survey, a focus group discussion (FGD) was conducted with 10 teachers from 5 schools who volunteered to participate. FGDs are widely recognized for their ability to elicit rich, detailed narratives and group dynamics, which can reveal shared experiences and diverse perspectives [58], [59], [60]. The FGDs provided insights into teachers' practices and challenges in implementing the P5. To ensure the reliability of the data, the study also included in-depth interviews with 5 teachers from the same schools involved in the FGDs [59], [61]. The interviews served to validate and expand upon findings from the survey and FGDs, offering a deeper understanding of the strategies, challenges, and nuances in PBL assessment.

The study employed a combination of random and purposive sampling. Participants for the survey were randomly selected to ensure a representative sample of kindergartens in the region. For the FGDs and interviews, purposive sampling was utilized to select schools and teachers with specific criteria. Schools chosen for these methods had implemented PBL for the P3 since the policy's introduction, and participating teachers were required to be *Guru Penggerak* (motivator teachers). *Guru Penggerak* (GP) are educators trained under Indonesia's government initiative to become agents of change in education [62]. They are equipped with leadership and pedagogical skills to foster student-centered learning and innovation in teaching practices, making them ideal participants for this study.

While in the data analysis process, researchers applied appropriate methods for each type of data collected. Quantitative data from the survey were subjected to descriptive statistical analysis to identify common patterns and trends in assessment practices [63]. Qualitative data from FGDs and interviews were analyzed using Braun and Clarke's six-phase framework for thematic analysis, which provides a rigorous and systematic approach to identifying, analyzing, and reporting patterns within qualitative data [64]. This method was chosen for its flexibility and ability to provide a detailed account of complex qualitative data.

All collected data were done from April to June 2023 in North Sumatra Province. Participation was entirely voluntary, with no incentives provided to participants. Ethical research standards were upheld throughout the study. Informed consent was obtained from all participants, and data confidentiality was strictly maintained. Pseudonyms were used to protect participant identities, and all data were permanently deleted from the researchers' drives after analysis [65]. These measures align with ethical research practices as outlined by the American Psychological Association and the policy of Department of Research and Community Services (LPPM) Universitas Negeri Medan, ensuring the integrity and reliability of the study.

3 Result and Discussion

This section presents the integrated findings of the study, combining quantitative survey results with qualitative insights from focus group discussions (FGD) and interviews. The discussion contextualizes these findings within relevant literature to provide a comprehensive understanding of teachers' assessment practices during PBL implementation.

3.1 Assessment as a Complex Challenge for Early Childhood Education Teachers

Assessment in early childhood education (ECE) is inherently multifaceted, as it requires evaluating six domains of child development including religious and moral values, cognitive, socio-emotional, physical and motor, language, and character traits as embodied in the Pancasila Student Profile (P3). This holistic approach places unique demands on kindergarten teachers, distinguishing ECE from other levels of education, such as primary or secondary schooling. The integration of these domains into project-based learning (PBL) under the *Kurikulum Merdeka* further complicates assessment practices, as it requires methods, instruments, and techniques that align with both developmental milestones and curriculum goals. Many teachers expressed significant challenges in managing this complexity, such as Aminah, 42 years old teacher in a public school, noted, *"It's not just about assessing academic knowledge; we also have to evaluate how children think, behave, and collaborate. That's a lot to handle for one teacher in a class of 20 or more students."* This view is emphasized by Rini, an early career teacher from a prestigious private school in Medan, about the lack of guidance in linking assessment practices to developmental outcomes, stating, *"We're expected to cover everything, but there's no clear roadmap for how to do it effectively."*

These views, both from Aminah and Rini, highlight a wide gap in teacher preparation and support systems, particularly in balancing the demands of holistic assessment with practical classroom constraints in the context of early childhood education. Teachers often default to using simpler methods like observation or interviews, which, while effective in certain contexts, may not capture the full spectrum of child development. This underscores the need for targeted professional development programs that equip teachers with the skills and tools necessary for comprehensive and accurate assessments. Therefore, the findings of this study reveal significant challenges in kindergarten teachers' assessment practices, particularly in implementing holistic evaluations under the *Kurikulum Merdeka*. These challenges are not unique to Indonesia but reflect broader issues in early childhood education, where teachers often struggle to balance developmental objectives with practical constraints [51]. The heavy reliance on observation, for example, aligns with global trends in early childhood assessment, as it is widely regarded as a

natural and unobtrusive way to evaluate children's development [66], [67], [68].

3.2 Observation as the Most Popular Assessment Method

Observation emerged as the most widely used assessment method (28%), surpassing interviews (26%) and performance tasks (25%). Teachers explained that observation is a practical choice for assessing young children, as it allows them to monitor real-time behaviour and interactions during PBL activities. One participant commented, "Observation helps us see how children work together and solve problems without interrupting their flow." However, the study revealed critical limitations in how observation is implemented.
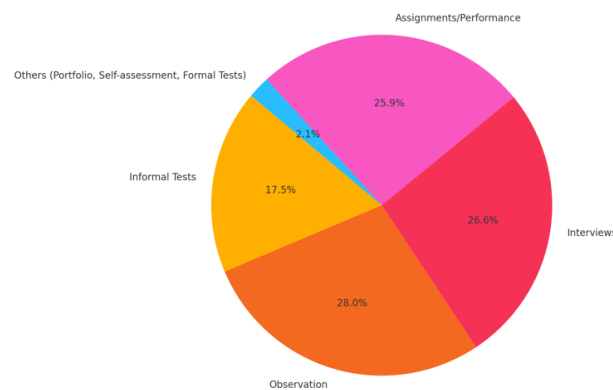

Fig. 1. Proportion of Assessment Methods Used by Teachers in Early Childhood Education

From the focus group discussion and interview results, teachers admitted to conducting observations without tools such as video recorders or assistants, particularly in classrooms with 20–25 students. This raises concerns about the accuracy and objectivity of their assessments. As Rini shared during the interview that she can only focus on a few children at a time, and she always feels worry about missing important details with others. Also, the use of checklists, which are the primary instruments for observation, further compounds these challenges. Teachers often struggle to manage multiple checklists while actively observing, leading to incomplete or biased data. As Agus, the only male teacher who participated in the FGD, explained, *"If I'm holding a checklist, I can't follow every child's activity.. for sure.."* These challenges are particularly pronounced in assessing socio-emotional and physical-motor development, where nuanced behaviours and actions are critical. For example, Marni, a *Guru Penggerak* from an Islamic-based school, that supported the Rini's view on this struggle remarked, *"It's easy to miss subtle signs of a child's progress if you're observing 20 kids alone."* Therefore, these findings show that while observation is a valuable tool, its effectiveness is undermined by classroom constraints and the lack of supporting resources, such as additional staff or technological aids. Schools must invest in tools and training to enhance the reliability and validity of observational assessments, as observation remains a fundamental assessment tool in early childhood education. It allows educators to monitor children's behaviours, interactions, and skills in authentic contexts [51], [69], [70], [71]. However, without systematic tools or training, observational data can become prone to subjectivity and inconsistency, as also emphasized by [48], [51], [72].

3.3 Sequential Image Assessment and Anecdotal Records: Popular but Misapplied

Sequential image assessments (37%) and anecdotal records (36%) are among the most commonly used instruments, reflecting their perceived utility in documenting children's progress. Anecdotal records allow teachers to capture specific incidents that demonstrate developmental milestones
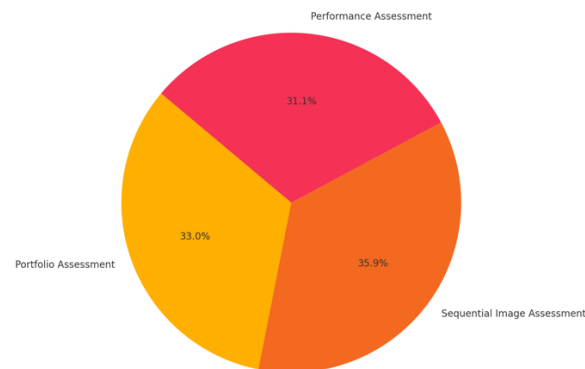

Fig. 2. Proportion of Assessment Systems Used by Teachers in Early Childhood Education

Marni stated, "*Anecdotal records help us track moments that show a child's growth, like solving a puzzle or helping a friend.*" However, teachers also reported challenges in aligning these records with specific learning outcomes. "*Sometimes we just write down what we see, but we don't know how it connects to the Pancasila dimensions..*" She later admitted in the FGD.

Sequential image assessments were popular among teachers for their ability to visually document children's learning processes. However, the study revealed widespread misinterpretations of how to use this instrument effectively. Many teachers viewed it as merely taking random photos of children during activities rather than systematically documenting the stages of a task. Agus confidently shared during the FGD, "*We, teachers, are documenters— just take pictures of kids working on their projects, one picture today, one picture tomorrow, and we'll share it with their parents through the WhatsApp group.*" This perspective highlights the common practice of using sequential images as documentation tools rather than as instruments for critical analysis. In contrast, proper sequential image assessments involve capturing key steps in a process and using rubrics to evaluate progress. For instance, during a cutting activity, teachers should document how children hold scissors, follow a pattern, and produce a finished product, evaluating their motor skills and adherence to instructions. Similarly, anecdotal records were frequently disconnected from learning indicators. Teachers often recorded general observations without linking them to developmental milestones or curriculum goals. For instance, one participant noted, "*We document what happens during activities, but it's hard to tie it back to the Pancasila dimensions.*" This disconnect underscores the need for targeted teacher training, as aligning assessment tools with curriculum objectives is essential for meaningful and valid evaluations [73].

Therefore, an absence of rubrics was a recurring challenge raised in the FGD and interviews. Teachers acknowledged that they rarely created rubrics, relying instead on subjective judgments. Leoni, a participant with over 15 years of experience as an early

childhood educator, admitted, *"Actually, without rubrics, it's quite hard to be consistent or fair in evaluating children's work."* This gap reflects a broader issue in assessment practices, while teachers recognize the potential of sequential image assessments, they lack the tools and training to utilize them effectively. As a result, this study suggests that professional development programs must prioritize the design and application of rubrics to enhance the reliability of these instruments. In fact, the rubrics itself provide a standardized framework for evaluating performance and ensuring consistency across contexts [74], [75]. Without rubrics, teachers often relied on subjective evaluations, which reduced the reliability of their assessments. Sequential image assessments, which have the potential to document and analyse complex learning processes, were reduced to simple documentation of activities with minimal alignment to learning outcomes. This misuse reflects systemic issues in teacher preparation and training. Research by Hattie and Timperley (2007) highlights the importance of feedback loops in assessment practices, emphasizing that without clear criteria, teachers miss opportunities to provide constructive feedback that fosters learning [33], [76].

3.4 Misinterpretation of *Freedom* in Assessment Indicators

One of the most striking findings of this study is the prevalent misinterpretation of the freedom (*Merdeka*) principle among kindergarten teachers, particularly regarding the use of assessment indicators. While the *Merdeka* curriculum encourages flexibility and innovation in teaching and assessment, many teachers mistakenly perceive this as permission to abandon the use of structured indicators altogether. As Marni stated, *"We assumed that the Pancasila Student Profile's elements and sub-elements are sufficient as guidelines, so we didn't think it was necessary to create detailed indicators."*

This approach, however, has led to vague and unmeasurable assessment practices. Document analysis of daily lesson plans revealed a frequent reliance on non-operational verbs such as "understand," "appreciate," or "enjoy," which are subjective and difficult to assess objectively. For instance, one plan mentioned, *"Students will understand the importance of teamwork,"* without specifying how this understanding would be observed or measured. This lack of specificity undermines the reliability of assessments and raises questions about the alignment between assessment practices and curriculum goals. Additionally, many teachers lack formal training in designing measurable and observable indicators. During focus group discussions, teachers admitted that they rely heavily on templates or pre-existing materials, which may not align with the intended learning outcomes of the P3. Agus clearly confessed that, *"I personally often copy indicators from online resources or books without checking if they match what we want to achieve in the project."* This practice suggests a need for capacity-building initiatives to enhance teachers' competency in creating and applying valid indicators, and furthermore teacher's accountability and integrity about their jobs.

Therefore, this finding reveals that there is a critical gap in the implementation of the *Merdeka curriculum*. While the framework provides overarching goals, it does not adequately support teachers in operationalizing these goals into actionable and assessable indicators. This disconnect could significantly impact the effectiveness of the curriculum, particularly in early childhood education, where assessment should guide both teaching and learning processes. Such findings resonate with Darling-Hammond [77], [78], [79], who emphasized that autonomy in education must be supported by robust professional development to prevent inconsistencies in implementation. Without operationalized indicators, assessments risk becoming arbitrary and

fail to provide meaningful insights into children's progress [80]. The government needs to clarify its stance on whether it intends to provide specific indicators for each element and sub-element of the *Pancasila Student Profile (P3)* dimensions. Without clear guidance, teachers are left to interpret these dimensions independently, often leading to inconsistencies and subjective practices. A potential solution could be adopting an approach similar to the *Standar Tingkat Pencapaian Perkembangan Anak (STTPA)*, the developmental milestones standard previously issued for early childhood education. This document provided detailed benchmarks for various aspects of child development, offering teachers a structured framework to guide their assessments. Adopting a similar strategy for the *P3* dimensions would ensure that teachers have concrete, measurable indicators to evaluate children's progress, reducing ambiguities in assessment practices and enhancing alignment with the curriculum's objectives. Such an initiative would not only improve the validity and reliability of assessments but also empower teachers to integrate assessment seamlessly into teaching and learning processes. By bridging this gap, the *Kurikulum Merdeka* could realize its potential as a transformative framework for holistic child development.

3.5 Lack of Validation and Monitoring in Assessment Practices

Another significant challenge identified in this study is the absence of systematic validation and monitoring mechanisms for assessment practices in kindergarten settings. Teachers consistently reported that their assessments, whether based on observation, interviews, or other methods, are rarely reviewed by school administrators or supervisors. As Rini highlighted in the focus group discussion, *"We're left to our own devices when it comes to assessments. Nobody checks if our methods are valid or if the results align with the curriculum."* This lack of oversight has several implications. First, it raises concerns about the validity and reliability of the data used to evaluate student progress. Without external validation, there is no guarantee that the assessments conducted by teachers accurately reflect students' development across the six domains of the P3. For example, admitted by Marni during an interview, *"Sometimes, we just write what we feel is appropriate in the report card because we don't have time to analyse every piece of data we collect."* Such practices compromise the integrity of the assessment process and could misrepresent students' true abilities and progress. Second, the absence of feedback mechanisms limits opportunities for professional growth. Teachers reported that they rarely receive constructive criticism or support to improve their assessment practices. Agus raised his view about this issue that, *"If we had regular feedback from supervisors, we could refine our methods and ensure they meet the curriculum's objectives."* The lack of feedback not only perpetuates ineffective practices but also discourages innovation and experimentation in assessment. More importantly, this issue highlights a broader systemic problem: the lack of institutional accountability in implementing the *Kurikulum Merdeka*. While the curriculum promotes autonomy, this autonomy must be balanced with adequate support and oversight to ensure that practices align with its overarching goals. The absence of monitoring and validation mechanisms significantly undermines the curriculum's potential to transform early childhood education.

In order to address this gap, schools and policymakers must establish robust systems for reviewing and validating assessment practices. Such systems should go beyond ensuring compliance with curriculum standards; they should also provide constructive feedback and professional development opportunities to empower teachers. Feedback, as Hattie and

Timperley [76] emphasize, is crucial for professional growth and the refinement of practices. Without these validation systems, teachers miss critical opportunities to identify and address weaknesses in their assessments. Moreover, the absence of accountability compromises the credibility of the assessment process, creating inconsistencies and potential biases in evaluating student progress. By implementing structured feedback and validation mechanisms, schools can not only enhance the reliability of assessment practices but also foster a culture of continuous improvement. This dual focus on accountability and support is essential for realizing the transformative aspirations of the *Merdeka* curriculum.

3.6 Gaps in the Use and Development of Assessment Instruments

The study reveals critical gaps in how teachers select and develop assessment instruments, impacting the overall reliability and validity of their practices. Quantitative data indicate that while instruments such as checklists (31%) and rating scales (29%) are commonly used (see Figure 3), their implementation often lacks alignment with learning objectives and developmental indicators.
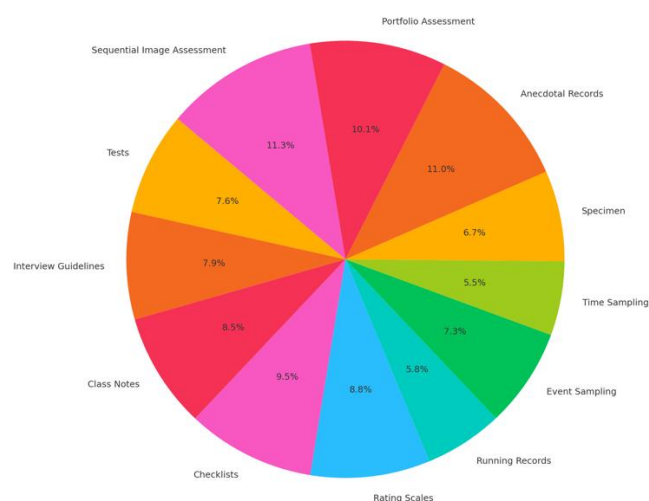

Fig. 3. Distribution of Assessment Instruments Used by Teachers in Early Childhood Education

During FGDs, teachers admitted that many of these instruments are either poorly designed or not tailored to the specific competencies outlined in the Pancasila Student Profile. Aminah, as the most senior teacher in the room, explained, "*We often buy ready-made instruments from bookstores without checking if they actually fit the project goals.*" This reliance on pre-made materials highlights a significant issue: teachers are not equipped with the skills to design their own assessment tools. Marni and Agus both expressed similar concerns, noting that creating their own instruments requires considerable time and expertise, which they often lack confidence in. Consequently, they prefer to use readily available tools, even if these are not perfectly aligned with their specific needs. For example, in a performance-based project on Indonesia's Heroes Day (*Hari Pahlawan*), teachers used a generic checklist to assess whether children participated in the activity. However, the checklist lacked specific criteria for

evaluating key aspects, such as children's understanding of the event's significance or their ability to demonstrate values like teamwork or respect. As a result, the assessments provided limited meaningful feedback on the children's learning outcomes, reducing their potential to inform instructional decisions or foster student development. Also, the absence of rubrics in most instruments further exacerbates these challenges. Rubrics provide a structured framework for evaluating performance against clear, defined criteria, ensuring consistency and objectivity in assessment [81]. Yet, many teachers admitted to skipping this step due to a lack of training or awareness of its importance. Without rubrics, assessments often rely on subjective judgments, making it difficult to ensure fairness or track progress meaningfully.

These findings highlight a particularly concerning issue: the misalignment between the instruments used and the learning activities they are intended to assess. During interviews, teachers acknowledged that instruments like anecdotal records and sequential image assessments are sometimes used incorrectly or inconsistently. This disconnect reflects a broader issue, including a lack of coherence between curriculum goals, teaching activities, and assessment practices. For example, while the curriculum emphasizes the holistic development of students through the dimensions of the Pancasila Student Profile, the absence of tailored instruments makes it challenging for teachers to measure specific competencies effectively. Therefore, this study underscores the urgent need for targeted interventions to address these gaps. Teachers require training not only in designing effective instruments but also in aligning these tools with developmental indicators and learning outcomes specified in the curriculum. Professional development programs should focus on building teachers' confidence and capacity to create and adapt tools that are both practical and aligned with curriculum goals [79], [82]. Additionally, schools should provide resources, such as templates and examples of high-quality instruments, to support teachers in this process. As Agus, the loudest participant in the room, aptly summarized, *"We want to do better, but we need help to make sure our assessments truly reflect what the children are learning."* Ultimately, addressing these gaps would not only improve the validity and reliability of assessments but also empower teachers to integrate meaningful evaluations into their instructional practices. This alignment between instruments, teaching activities, and curriculum goals is crucial for realizing the transformative potential of the curriculum in early childhood education [51].

4   Conclusion

This study sheds light on the complex and multifaceted challenges faced by kindergarten teachers in implementing assessment practices under the *Merdeka* curriculum. Despite the curriculum's innovative and transformative aspirations, the findings reveal critical gaps in teacher preparation, instrument design, and systemic accountability. The overreliance on informal methods, such as observation and sequential image assessments, highlights the need for better training and resources to ensure these tools are applied effectively. Teachers often lack the skills to design or adapt instruments to align with developmental indicators, leading to misaligned assessments that provide limited meaningful feedback. Furthermore, the absence of rubrics and tailored indicators exacerbates inconsistencies, undermining the reliability and validity of assessment practices. Another significant issue is the misinterpretation of the *freedom* principle within the *Merdeka* curriculum, which has resulted in vague and unmeasurable assessment goals. This, coupled with a lack of institutional validation and feedback mechanisms, has left teachers unsupported in refining their practices, limiting opportunities for

professional growth and innovation. The findings highlight systemic barriers, including insufficient monitoring and the absence of clear guidelines for implementing assessment practices that align with curriculum objectives.

The findings of this study have several implications for policy, practice, and future research. In terms of policy implication, policy makers should prioritize the development of clear, measurable indicators for each element and sub-element of the Pancasila Student Profile (P3). Adopting a framework similar to the *Standar Tingkat Pencapaian Perkembangan Anak (STTPA)* would provide teachers with a structured roadmap for aligning assessment practices with developmental goals. In the context of the practicality, this research implies that the schools must establish robust feedback and validation mechanisms to ensure the reliability and validity of assessments. Professional development programs should focus on equipping teachers with the skills to design effective instruments, apply rubrics, and integrate assessments seamlessly into teaching processes. Additionally, resources such as templates and guidelines should be made available to support teachers. Also, for the future studies, it is needed to explore the long-term impact of targeted interventions, such as training programs and institutional monitoring systems, on the quality of assessment practices in early childhood education.

Even though this study provides valuable insights, several limitations should be acknowledged. Firstly, the sample size was relatively small and localized, focusing on kindergartens in Medan and Deli Serdang Regency. This may limit the generalizability of the findings to other regions with different contextual challenges. Secondly, the reliance on self-reported data through surveys, FGDs, and interviews may have introduced biases, as participants could have over- or under-reported their practices. Finally, while the study offers a comprehensive analysis of existing practices, it does not evaluate the direct outcomes of these practices on student development, which could be explored in future research to provide a more holistic understanding of the effectiveness of the *Merdeka* curriculum.

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