

## RESEARCH PAPER

# Cognitive and Pedagogical Dimensions of Qur'an Memorization: Insights from *Tasmi'* and *Juz'iyah* Assessment Practices

Rufaidah<sup>a</sup>✉ | Nafila Faradiba<sup>b</sup> | Asa Mufidah Fiddini<sup>c</sup> | Dita Purnama Sari<sup>d</sup><sup>a</sup>Universitas Muhammadiyah Surakarta, Indonesia<sup>b</sup>Universitas Muhammadiyah Surakarta, Indonesia<sup>c</sup>Universitas Muhammadiyah Surakarta, Indonesia<sup>d</sup>Universitas Muhammadiyah Surakarta, Indonesia**ABSTRACT**

The assessment of Qur'anic memorization remains largely underexplored within contemporary educational research, particularly in terms of its cognitive and pedagogical foundations. Existing practices such as *tasmi'* and *juz'iyah* are widely implemented in Islamic educational settings; however, their roles as structured assessment mechanisms have not been sufficiently conceptualized within modern assessment frameworks. This study aims to examine the cognitive and pedagogical dimensions of *tasmi'* and *juz'iyah*, and to position these practices as integral components of a comprehensive memorization assessment system. A qualitative case study design was employed, involving five participants from an Islamic junior secondary school in Indonesia, including a vice principal, teachers, and students. Data were collected through semi-structured interviews and document analysis, and analyzed using thematic analysis to identify recurring patterns and relationships across data sources. The findings reveal that *tasmi'* functions as a real-time assessment of retrieval fluency and recitation accuracy, while *juz'iyah* serves as a mechanism for evaluating cumulative retention and mastery over time. The integration of these practices forms a complementary assessment system that captures both immediate performance and long-term memorization stability. Additionally, factors such as student motivation, teacher feedback, and consistency of implementation were found to significantly influence assessment effectiveness. These findings contribute to the development of an integrated model of memorization assessment that aligns with contemporary theories of cognitive learning and educational evaluation. These results support the development of an integrated assessment model aligned with cognitive learning and educational evaluation theories, offering implications for improving memorization-based learning practices.

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## INTRODUCTION

The assessment of Qur'anic memorization has long been a central component of Islamic education, particularly in formal and non-formal institutions that emphasize *ḥifẓ* (memorization) as a core learning outcome [1], [2]. Globally, millions of students are engaged in Qur'anic memorization programs, with countries such as Indonesia, Malaysia, and Saudi Arabia reporting significant enrollment growth in Islamic schooling systems over the past decade. In Indonesia alone, the number of Islamic junior high schools (*madrasah tsanawiyah*) has exceeded 18,000 institutions, many of which integrate structured memorization programs into their curricula [3]. Despite this expansion, empirical data indicate variability in memorization achievement, with studies reporting that only approximately 40–60% of students reach targeted memorization benchmarks within the expected timeframe [4]. This inconsistency suggests that existing assessment practices may not fully capture the complexity of memorization performance, particularly in terms of cognitive retention and recitation accuracy [5].

From a pedagogical perspective, Qur'anic memorization involves complex cognitive processes, including encoding, storage, retrieval, and verbal articulation, which align with broader theories in cognitive psychology and learning sciences. Traditional assessment methods, such as *tasmi'* (oral recitation before a teacher) and *juz'iyah* (segment-based memorization evaluation), are widely used to evaluate students' memorization progress [6]. These methods emphasize repetition, accuracy, and fluency, reflecting both behaviorist and constructivist learning principles. Recent studies have begun to explore the pedagogical effectiveness of these practices, highlighting their role in reinforcing memory consolidation and learner discipline. However, most existing research remains descriptive and context-specific, often focusing on instructional techniques rather than systematically analyzing assessment mechanisms as measurable constructs within educational evaluation frameworks [7].

The current state of the art reveals a growing interest in integrating cognitive and pedagogical approaches in religious education, particularly in the assessment of memorization-based learning. Research in educational assessment has increasingly emphasized performance-based evaluation, formative feedback, and competency-based measurement as key indicators of learning achievement [8]. In parallel, emerging studies in Qur'anic education have attempted to align traditional practices with modern assessment theories, including rubric-based evaluation and standardized scoring systems. Nevertheless, there remains a lack of comprehensive frameworks that explicitly connect traditional memorization practices, such as *tasmi'* and *juz'iyah*, with established cognitive and pedagogical theories. This disconnect limits the ability to generalize findings and to position Qur'anic memorization within broader academic discourses on learning assessment [9].

A critical research gap can therefore be identified in the absence of empirically grounded models that conceptualize *tasmi'* and *juz'iyah* as integrated assessment tools within a cognitive-pedagogical framework. Existing studies tend to treat these practices as routine instructional activities rather than as structured mechanisms for measuring learning outcomes [10]. Furthermore, there is limited quantitative evidence examining how these assessment practices correlate with students' memorization achievement, retention rates, and overall learning performance. The lack of standardized metrics and analytical models also hinders cross-institutional comparisons and the development of scalable assessment systems. Consequently, the potential contribution of these traditional practices to contemporary educational assessment theory remains underexplored [11].

This study addresses the need for a systematic examination of Qur'anic memorization assessment by analyzing the cognitive and pedagogical dimensions embedded in *tasmi'* and *juz'iyah* practices. It conceptualizes these practices not merely as instructional routines but as measurable and theoretically grounded assessment instruments that reflect students' memorization achievement. The study positions *tasmi'* as an indicator of retrieval fluency and real-time cognitive performance, while *juz'iyah* represents structured progression and cumulative retention. By framing these practices within a unified analytical

perspective, this research contributes to the development of a more robust and generalizable assessment model in Qur'anic education.

The urgency of this research lies in the increasing demand for evidence-based educational practices that can bridge traditional learning systems with contemporary academic standards. As Islamic educational institutions continue to expand globally, there is a pressing need to ensure that assessment methods are not only pedagogically sound but also empirically validated and theoretically informed. Without such integration, memorization-based learning risks being perceived as lacking rigor within modern educational discourse. Therefore, this study provides a timely contribution by offering insights that can enhance the credibility, effectiveness, and scalability of Qur'anic memorization assessment, while also opening pathways for interdisciplinary research in education, cognitive science, and religious studies.

## METHODOLOGY

### Research Design

This study adopted a qualitative research approach employing a case study design to explore the cognitive and pedagogical dimensions of *tasmi'* and *juz'iyah* as assessment practices in Qur'anic memorization programs. The qualitative paradigm was selected to capture the depth, complexity, and contextual nuances of assessment implementation, which cannot be adequately represented through quantitative measures alone. A case study design enabled an in-depth and holistic examination of naturally occurring practices within a real educational setting, allowing the researcher to investigate how assessment is constructed, interpreted, and enacted by different stakeholders. This design is particularly appropriate for understanding embedded educational processes where contextual factors play a significant role in shaping instructional and evaluative practices.

### Participants

The study was conducted at a formal Islamic junior secondary school, SMP Al Irsyad Surakarta, Indonesia, which integrates a structured *tahfidz* program into its curriculum. A total of five participants were purposively selected to represent key stakeholders involved in the assessment process, consisting of one Vice Principal responsible for *tahfidz* affairs, two *tahfidz* teachers, and two students actively enrolled in the program. The inclusion of these participants ensured a multi-perspective understanding of the assessment system, encompassing policy-level decision-making, instructional implementation, and learner experience. The Vice Principal provided insights into institutional policies and program design, teachers contributed practical perspectives on the execution of *tasmi'* and *juz'iyah*, and students offered experiential accounts of how these assessments influence their memorization practices. Such triangulation of perspectives enhances the richness and validity of qualitative findings.

### Instruments

The primary research instruments consisted of a semi-structured interview guide and a document analysis protocol, both developed based on key theoretical constructs related to memorization quality, including retention, recitation accuracy, fluency, and consistency of *muroja'ah* (revision). The interview guide was designed to allow flexibility in probing participants' responses while maintaining alignment with the research objectives, covering themes such as assessment procedures, evaluation criteria, perceived effectiveness, and challenges. The document analysis protocol was structured to systematically examine institutional records and assessment artifacts, focusing on scoring systems, progression tracking, and feedback mechanisms. To ensure content validity and contextual relevance, the instruments were reviewed by subject-matter experts, including experienced *tahfidz* educators, and refined accordingly prior to data collection.

## Data Collection Process

Data were collected through semi-structured interviews and document analysis to enable methodological triangulation and enhance the credibility of the findings. Interviews were conducted individually with each participant, lasting approximately 45–60 minutes, and were audio-recorded with informed consent. These interviews aimed to elicit in-depth insights into the objectives, implementation processes, and perceived effectiveness of *tasmi'* and *juz'iyah* as assessment tools. In parallel, document analysis was carried out on various institutional records, including *mutaba'ah* logs, *juz'iyah* assessment reports, *tasmi'* score archives, and internal policy documents related to the *tahfidz* program. The integration of multiple data sources allowed for cross-validation of findings and provided a more comprehensive understanding of the assessment system in practice.

## Data Analysis

Data analysis was conducted using a thematic analysis framework, following an iterative and systematic process. The analysis began with verbatim transcription of interview recordings, followed by initial coding to identify meaningful units of data related to assessment practices and memorization outcomes. These codes were then categorized into broader themes representing the cognitive and pedagogical dimensions of *tasmi'* and *juz'iyah*. The process involved continuous comparison across data sources to identify patterns, similarities, and discrepancies, thereby strengthening analytical depth. Data reduction and data display techniques were employed to organize findings into coherent structures, facilitating interpretation and conclusion drawing. To enhance rigor, coding was conducted iteratively, and emerging themes were refined through repeated engagement with the data.

## Trustworthiness

To ensure the rigor and trustworthiness of the study, several qualitative validation strategies were employed, including credibility, dependability, and confirmability. Credibility was established through data triangulation across interviews and documents, as well as member checking with selected participants to verify the accuracy of interpretations. Dependability was ensured by maintaining a detailed audit trail documenting the research process, including data collection procedures, coding decisions, and analytical steps. Confirmability was addressed by minimizing researcher bias through systematic coding, reflexive practices, and transparent documentation of findings. These measures collectively enhance the reliability and validity of the study, ensuring that the results are both trustworthy and grounded in empirical evidence.

## RESULTS

The findings of this study demonstrate that *tasmi'* and *juz'iyah* function as complementary assessment practices that reflect both cognitive and pedagogical dimensions of Qur'anic memorization. Data obtained from semi-structured interviews and document analysis consistently indicate that *tasmi'* serves as a primary mechanism for assessing real-time retrieval, recitation accuracy, and fluency. Teachers emphasized that *tasmi'* enables direct evaluation of students' ability to recall memorized verses independently, thereby distinguishing between genuine memorization and superficial recognition. One teacher stated that "*tasmi' is the most accurate way to see whether a student truly memorizes or only recognizes the verses*", highlighting its diagnostic value. This perspective was reinforced by the Vice Principal, who noted that *tasmi'* sessions are designed to simulate authentic performance conditions requiring uninterrupted recall.

Document analysis further supports these findings, showing that *tasmi'* scores are systematically recorded based on criteria such as fluency, pronunciation accuracy, adherence to *tajwid* rules, and error frequency. Quantitative patterns indicate that students who participated regularly in *tasmi'* sessions (at

least three times per week) achieved relatively stable scores ranging between 80 and 90, whereas those with irregular participation exhibited more variable performance, typically ranging between 65 and 85. These findings suggest that *tasmi'* not only functions as an evaluative tool but also reinforces retrieval processes through repeated practice. Students' responses confirm this interpretation, as one participant explained that "*when I know I will do tasmi', I repeat my memorization more seriously because I don't want to make mistakes*", indicating that *tasmi'* also acts as a motivational driver that enhances cognitive engagement and disciplined learning behavior.

In contrast, *juz'iyah* was found to function as a structured mechanism for assessing segmented memorization and long-term retention. Teachers described *juz'iyah* as a systematic checkpoint that ensures mastery before progression, with one teacher noting that "*juz'iyah helps us see whether students can maintain their memorization, not just memorize quickly*". Document analysis reveals that *juz'iyah* assessments are conducted after the completion of specific memorization segments and are evaluated based on completeness, continuity, and retention stability. Performance records indicate that approximately 70% of students achieved ratings categorized as "good" to "excellent," while around 30% required repetition before progressing further. These findings highlight the role of *juz'iyah* in ensuring the durability of memorization and preventing superficial learning.

Students' experiences further illustrate the pedagogical importance of *juz'iyah*, particularly in promoting continuous revision (*muroja'ah*). One student reported that "*juz'iyah makes me review old memorization because I cannot move forward if I forget*", demonstrating its role in reinforcing long-term retention. The Vice Principal similarly emphasized that *juz'iyah* serves as a quality control mechanism within the program, ensuring that memorization outcomes are sustained over time. Taken together, these findings indicate that while *tasmi'* focuses on immediate recall and performance accuracy, *juz'iyah* emphasizes cumulative retention and structured progression, making both practices essential components of a comprehensive assessment system.

A key insight emerging from the data is the integration of *tasmi'* and *juz'iyah* as a complementary system that captures both short-term and long-term dimensions of memorization. Teachers consistently reported that reliance on a single assessment method would result in an incomplete evaluation, as each method addresses distinct aspects of learning. Document analysis confirms that both *tasmi'* and *juz'iyah* scores are used collectively to determine overall student performance, enabling educators to identify discrepancies between retrieval fluency and retention stability. This integrated approach allows for more informed instructional decisions and supports a balanced combination of formative and summative assessment practices.

In addition to these core findings, the analysis identified several key factors influencing the effectiveness of *tasmi'* and *juz'iyah* implementation. These factors include student motivation, the quality of teacher feedback, consistency in assessment scheduling, and institutional support. Evidence from interviews and document analysis indicates that students' motivation is strongly influenced by the evaluative nature of *tasmi'*, which encourages intensive preparation and repeated revision. Similarly, immediate and constructive feedback provided by teachers during *tasmi'* sessions plays a critical role in improving recitation accuracy and reducing memorization errors. Furthermore, consistent implementation of assessment routines was found to contribute to more stable performance outcomes, as students engaged in regular evaluation demonstrated higher levels of memorization consistency compared to those with irregular assessment schedules. Institutional support, particularly in the form of structured program management, was also identified as a key factor in ensuring the sustainability and effectiveness of the assessment system. These influencing factors are summarized in Table 1 below.

**Table 1.** Factors Influencing Assessment Effectiveness

| Factor                 | Description                                     | Evidence from Data                           | Impact on Learning                   |
|------------------------|---|--|--------------------------------------|
| Student Motivation     | Driven by performance pressure in <i>tasmi'</i> | Interview: students prepare more intensively | Improves memorization consistency    |
| Teacher Feedback       | Immediate and corrective during recitation      | Observed in <i>tasmi'</i> sessions           | Enhances accuracy and reduces errors |
| Assessment Consistency | Regular vs irregular scheduling                 | Document analysis of score patterns          | Stabilizes performance outcomes      |
| Institutional Support  | Structured program management                   | Vice Principal statement                     | Ensures sustainability of system     |

Overall, the results indicate that *tasmi'* and *juz'iyah*, when implemented in an integrated and consistent manner, form a comprehensive assessment system that not only measures memorization performance but also actively contributes to the development of cognitive retention and disciplined learning behaviors. The presence of supporting factors such as motivation, feedback, and institutional structure further strengthens the effectiveness of these assessment practices, highlighting their potential as a robust model for evaluating memorization-based learning in Islamic education.

## DISCUSSION

### Reframing Memorization Assessment through Cognitive Retrieval and Retention Mechanisms

The findings of this study invite a critical reconceptualization of Qur'anic memorization assessment by situating *tasmi'* and *juz'iyah* within the broader framework of cognitive learning theories, particularly those related to retrieval processes and long-term memory consolidation [12]. The empirical evidence demonstrates that *tasmi'* is not merely a traditional recitation exercise but a structured form of retrieval practice that activates students' ability to recall information under performance conditions. In cognitive psychology, retrieval practice is widely recognized as a powerful mechanism for strengthening memory traces and enhancing long-term retention, as it requires learners to reconstruct knowledge actively rather than passively recognize it [13]. The observed improvement in students' performance consistency, particularly among those who engaged regularly in *tasmi'*, aligns with this theoretical premise, suggesting that repeated retrieval under evaluative conditions reinforces both accuracy and fluency of memorization.

Moreover, the role of *tasmi'* extends beyond simple recall, encompassing elements of cognitive load management and real-time processing. During *tasmi'*, students are required to simultaneously retrieve memorized verses, maintain sequential coherence, and apply rules of pronunciation and *tajwid* [14]. This multidimensional demand reflects complex cognitive processing involving working memory and executive control, indicating that *tasmi'* operates as a high-level cognitive task rather than a rote activity. From this perspective, the traditional framing of memorization as a lower-order cognitive skill becomes inadequate, as the findings demonstrate that effective memorization—particularly when assessed through *tasmi'*—engages higher-order processes such as monitoring, self-regulation, and error correction [15]. This challenges dominant assumptions in mainstream education that often position memorization in opposition to critical thinking, instead suggesting that structured memorization practices can foster sophisticated cognitive engagement when properly designed and assessed.

In contrast, *juz'iyah* reflects a complementary cognitive mechanism centered on retention stability and memory consolidation over time. The requirement for students to revisit and demonstrate mastery of previously memorized segments aligns closely with the concept of spaced repetition, a well-established principle in cognitive science that emphasizes the importance of distributed practice in strengthening long-term memory [16]. The findings indicate that *juz'iyah* functions as a systematic reinforcement process, ensuring that memorization is not transient but deeply encoded and retrievable across extended intervals.

The fact that a proportion of students required repetition before progressing further highlights the role of *juz'iyah* in identifying weaknesses in retention and preventing premature advancement, thereby supporting durable learning outcomes. This reinforces the view that effective memorization assessment must account not only for immediate performance but also for the temporal dimension of learning [17].

Importantly, the integration of *tasmi'* and *juz'iyah* reveals a dynamic interplay between retrieval and retention processes, offering a more holistic understanding of memorization as a cognitive phenomenon. While *tasmi'* captures the immediacy of recall and the strength of retrieval pathways, *juz'iyah* provides evidence of consolidation and resistance to forgetting over time [18]. This dual mechanism corresponds to contemporary models of memory that emphasize the interaction between active retrieval and spaced reinforcement in achieving long-term mastery. The empirical patterns observed in this study, including discrepancies between short-term fluency and long-term retention among some students, further underscore the necessity of integrating both dimensions in assessment practices. Without such integration, evaluation systems risk overestimating learning based on temporary performance or underestimating it due to delayed recall challenges [19].

From a critical standpoint, these findings challenge the prevailing dichotomy between traditional religious pedagogies and modern cognitive science by demonstrating that established practices such as *tasmi'* and *juz'iyah* inherently embody sophisticated cognitive principles. Rather than being viewed as pre-modern or purely ritualistic, these practices can be understood as empirically grounded strategies that align with evidence-based learning theories [20]. However, the lack of explicit theoretical articulation in existing educational frameworks limits their recognition and adaptation within broader academic discourse. This gap points to the need for a more deliberate conceptual integration, where traditional practices are not only preserved but also analytically reframed to enhance their relevance and applicability in contemporary education systems.

In sum, the reframing of memorization assessment through the lens of cognitive retrieval and retention mechanisms provides a significant theoretical contribution by bridging disciplinary boundaries between religious education and cognitive science. It highlights that *tasmi'* and *juz'iyah* are not merely evaluative tools but integral components of a cognitively informed learning system that promotes both immediate performance and long-term mastery. This perspective not only elevates the academic status of Qur'anic memorization practices but also offers broader implications for the design of assessment strategies in other memorization-intensive learning contexts.

### Positioning *Tasmi'* and *Juz'iyah* within Contemporary Assessment Paradigms

Beyond their cognitive implications, the findings of this study position *tasmi'* and *juz'iyah* as structured assessment practices that align closely with contemporary paradigms in educational evaluation. Modern assessment theory increasingly emphasizes the integration of formative and summative approaches, performance-based evaluation, and continuous feedback mechanisms as essential components of effective learning systems [21]. Within this framework, *tasmi'* can be understood as a form of ongoing formative assessment that provides immediate, performance-based feedback, while *juz'iyah* functions as a summative checkpoint that validates cumulative learning outcomes. This dual structure reflects a sophisticated assessment design that balances process-oriented monitoring with outcome-oriented validation, a principle widely advocated in current educational research [22].

The role of *tasmi'* as a formative assessment practice is particularly evident in its iterative and feedback-driven nature. Unlike conventional testing methods that often rely on delayed evaluation, *tasmi'* allows for real-time interaction between teacher and student, enabling immediate identification and correction of errors [23]. This immediacy enhances the diagnostic function of assessment, transforming it into a tool for learning rather than merely a measure of learning. Furthermore, the regular implementation of *tasmi'* fosters a continuous feedback loop, where students receive consistent guidance that informs their subsequent learning strategies. This aligns with contemporary perspectives that view formative

assessment as an integral part of the instructional process, contributing to improved learning outcomes through timely and actionable feedback [24].

In contrast, *juz'iyah* reflects key characteristics of summative assessment, particularly in its role as a gatekeeping mechanism for progression. By requiring students to demonstrate mastery of specific memorization segments before advancing, *juz'iyah* ensures that learning outcomes meet predefined standards. This approach is consistent with competency-based education models, where progression is contingent upon demonstrated proficiency rather than time-based completion [25]. The structured nature of *juz'iyah* assessment, supported by documented scoring and performance categorization, further enhances its function as a reliable measure of cumulative achievement. However, unlike traditional summative assessments that often occur at the end of a learning cycle, *juz'iyah* operates as a recurring checkpoint, thereby blurring the boundaries between formative and summative evaluation in a way that reflects more integrated and adaptive assessment systems [26].

A critical insight emerging from this positioning is that the combined use of *tasmi'* and *juz'iyah* embodies a form of performance-based assessment that prioritizes authentic demonstration of learning. In contrast to standardized testing formats that may rely on recognition or multiple-choice responses, both practices require students to actively perform their knowledge in a context that closely mirrors real-world application [27]. This emphasis on performance aligns with contemporary shifts toward authentic assessment, where the validity of evaluation is enhanced by its relevance to actual competencies. The requirement for uninterrupted recitation, adherence to linguistic accuracy, and consistency over time collectively contribute to a more holistic representation of student ability, thereby addressing limitations commonly associated with decontextualized assessment methods [28].

Furthermore, the findings suggest that the assessment system embedded in *tasmi'* and *juz'iyah* incorporates elements of continuous assessment, a model increasingly advocated in global education systems to replace high-stakes, one-time examinations [29]. The regular and structured nature of these practices ensures that assessment is distributed across the learning process, allowing for ongoing monitoring of student progress. This reduces the risk of performance distortion caused by test anxiety or situational factors and provides a more comprehensive picture of student achievement. The integration of multiple data points, including repeated *tasmi'* performances and periodic *juz'iyah* evaluations, enhances the reliability and validity of assessment outcomes [30].

From a critical perspective, however, the study also highlights limitations in the current implementation of these practices, particularly in relation to standardization and scalability [31]. While *tasmi'* and *juz'iyah* demonstrate strong alignment with contemporary assessment principles, their effectiveness remains highly dependent on teacher expertise, consistency of application, and institutional support. The absence of universally standardized rubrics and benchmarks may lead to variability in scoring and interpretation, potentially affecting the comparability of results across different contexts [32]. This challenge underscores the need for further development of structured assessment frameworks that can maintain the authenticity of these practices while enhancing their reliability and transferability within broader educational systems.

In addition, the positioning of *tasmi'* and *juz'iyah* within contemporary assessment paradigms raises important considerations regarding the integration of traditional and modern evaluation approaches. While these practices inherently reflect advanced assessment principles, their potential contribution to global educational discourse remains underrecognized due to limited conceptual articulation and empirical validation [33]. Bridging this gap requires not only empirical studies such as the present research but also efforts to translate these practices into widely accepted assessment frameworks, including the use of standardized descriptors, measurable indicators, and potentially digital assessment tools [34].

Overall, positioning *tasmi'* and *juz'iyah* within contemporary assessment paradigms reveals that these practices constitute a robust and multidimensional evaluation system that aligns with key principles of modern educational assessment. Their integration of formative feedback, summative validation, performance-based evaluation, and continuous monitoring demonstrates a level of sophistication that challenges conventional distinctions between traditional and modern assessment practices. At the same time, the findings point to the need for further refinement and standardization to fully realize their potential as scalable and globally relevant assessment models.

### Toward an Integrated Model of Memorization Assessment in Religious Education

Building upon the empirical findings, this study advances toward the development of an integrated model of memorization assessment that synthesizes the complementary functions of *tasmi'* and *juz'iyah* into a coherent and scalable evaluative framework. Rather than treating these practices as discrete or routine instructional activities, the proposed model conceptualizes them as interdependent components of a structured assessment system designed to capture multiple dimensions of learning performance [35]. This integration responds to a broader need in educational research for models that can accommodate both process-oriented and outcome-oriented evaluation, particularly in domains where memorization constitutes a central learning objective. In this regard, the model offers a systematic approach that aligns pedagogical practice with measurable indicators of learning achievement, thereby enhancing both analytical clarity and practical applicability [36].

At the core of this model is the principle of multidimensional assessment, which recognizes that memorization is not a singular construct but a composite of interrelated competencies, including accuracy, fluency, retention stability, and progression consistency [37]. The findings indicate that *tasmi'* and *juz'iyah* each address distinct yet complementary dimensions of these competencies, making their integration essential for achieving a holistic evaluation. Within the proposed framework, *tasmi'* is positioned as a continuous monitoring mechanism that generates high-frequency performance data, while *juz'iyah* functions as a periodic validation process that confirms the durability and coherence of memorization [38]. The interaction between these components enables a dynamic assessment cycle in which immediate performance is continuously refined and periodically consolidated, thereby reducing the likelihood of superficial learning outcomes.

To operationalize this integrated model, the study identifies several key components that structure the assessment process, including input conditions, assessment mechanisms, feedback systems, and learning outcomes [39]. These components are not merely sequential but interact recursively, forming a feedback-driven system that supports ongoing improvement. Importantly, the model emphasizes the role of feedback as a central mediating factor that links assessment to learning, transforming evaluation from a static measurement into an active driver of cognitive and behavioral development. This perspective aligns with contemporary views in educational design that prioritize adaptive and responsive learning systems over rigid and linear models. The proposed model is summarized in table 2 below.

**Table 2.** Integrated Model of Memorization Assessment

| Component                      | Description  | Function in Assessment System                                | Expected Outcome                 |
|--------------------------------|--|--|----------------------------------|
| Input Conditions               | Student readiness, prior memorization, instructional support | Establish baseline for assessment                            | Differentiated learning pathways |
| Tasmi' (Continuous Assessment) | Regular recitation-based evaluation                          | Monitor real-time performance and provide immediate feedback | Improved fluency and accuracy    |

|                                      |  |  |   |
|--------------------------------------|--|--|---|
| Juz'iyah<br>(Periodic<br>Assessment) | Segment-based cumulative<br>evaluation                           | Validate retention and<br>mastery before progression | Strengthened long-<br>term retention                  |
| Feedback<br>Mechanism                | Immediate and corrective<br>input from teachers                  | Bridge assessment and<br>learning process            | Reduced errors and<br>enhanced learning<br>strategies |
| Assessment<br>Integration            | Combined use of <i>tasmi'</i><br>and <i>juz'iyah</i> data        | Provide holistic evaluation<br>of memorization       | Balanced measurement<br>of performance                |
| Learning<br>Outcomes                 | Memorization<br>achievement, retention<br>stability, consistency | Final indicator of program<br>effectiveness          | Sustainable and high-<br>quality memorization         |

A critical contribution of this model lies in its potential scalability and adaptability beyond the immediate research context. While grounded in Qur'anic memorization practices, the underlying structure of the model reflects principles that are transferable to other forms of memorization-intensive learning, such as language acquisition, medical education, and foundational knowledge training in various disciplines [40]. The emphasis on continuous monitoring, periodic validation, and feedback integration provides a flexible framework that can be adapted to diverse educational settings, including both formal and non-formal institutions. Moreover, the model opens opportunities for integration with emerging approaches such as learning analytics, where data generated from repeated assessment cycles can be systematically analyzed to inform instructional decisions and personalize learning trajectories [41].

However, the transition from conceptual model to practical implementation raises several critical considerations. One key challenge relates to the standardization of assessment criteria and procedures, which is necessary to ensure reliability and comparability across different contexts. Without clearly defined rubrics and performance indicators, the effectiveness of the integrated model may be compromised by subjective interpretation and inconsistent application [42]. Additionally, the model requires a high level of teacher competence, particularly in delivering constructive feedback and maintaining consistent assessment routines. This underscores the importance of professional development and institutional support in enabling successful implementation.

Another important implication concerns the potential role of technology in enhancing the model's effectiveness. Digital tools could be utilized to record, analyze, and visualize assessment data, thereby increasing efficiency and accuracy in monitoring student progress [43]. For instance, automated tracking of *tasmi'* performance and digital archiving of *juz'iyah* results could facilitate longitudinal analysis of memorization development, enabling educators to identify patterns and intervene more strategically. Such integration would not only strengthen the empirical basis of assessment but also align the model with contemporary trends in data-informed education [44].

From a critical standpoint, the proposed model also contributes to ongoing debates regarding the positioning of memorization within modern education systems. By demonstrating that memorization assessment can be systematically structured, empirically grounded, and pedagogically meaningful, the model challenges reductive views that associate memorization solely with rote learning [45]. Instead, it positions memorization as a complex and measurable form of learning that can be optimized through well-designed assessment systems. This reframing has significant implications for both theory and practice, as it opens new avenues for integrating memorization-based approaches into mainstream educational discourse [46].

In sum, the integrated model of memorization assessment developed in this study provides a comprehensive framework that bridges traditional practices with contemporary educational principles. It offers a theoretically informed and practically applicable approach to evaluating memorization achievement, with potential relevance across disciplines and educational contexts. At the same time, its

successful implementation depends on careful attention to standardization, teacher capacity, and technological support, highlighting the need for further research and development to refine and expand the model.

## CONCLUSION

The assessment of Qur'anic memorization can be understood as a multidimensional process that extends beyond simplistic notions of rote learning, encompassing both cognitive complexity and structured pedagogical design. The complementary roles of *tasmi'* and *juz'iyah* demonstrate that effective evaluation must integrate immediate performance assessment with long-term retention validation, ensuring not only accuracy and fluency but also the sustainability of memorized content. This dual mechanism reflects a sophisticated evaluative system aligned with contemporary understandings of learning, in which knowledge is continuously retrieved, reinforced, and consolidated over time.

Positioning these practices within contemporary assessment paradigms reveals their strong alignment with principles of formative and summative evaluation, as well as performance-based and continuous assessment models. The feedback-oriented nature of *tasmi'* supports adaptive and ongoing learning processes, while the structured implementation of *juz'iyah* ensures that progression is grounded in demonstrated mastery. The integration of both practices offers a balanced and holistic assessment framework that enhances the validity of memorization evaluation and reinforces its legitimacy within global academic discourse. This integrated perspective also highlights the broader applicability of such assessment systems to other memorization-intensive domains, extending their relevance beyond religious education.

The development of an integrated assessment model further underscores the potential of synthesizing traditional practices with modern educational principles to create a scalable and theoretically grounded framework. However, its effectiveness depends on critical enabling factors, including consistency of implementation, quality of teacher feedback, and the establishment of clear and standardized assessment criteria. The incorporation of technological and data-driven approaches presents a promising avenue for strengthening the precision and scalability of assessment practices. Ultimately, this reconceptualization contributes to a broader rethinking of memorization as a cognitively rich and pedagogically significant process, offering both theoretical advancement and practical implications for improving assessment systems across diverse educational contexts.

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## Author Contribution

All authors contributed equally to the main contributor to this paper. Rufaidah conceptualized the study, developed the research design, and led the overall writing of the manuscript. Nafila Faradiba contributed to data collection and assisted in data analysis and interpretation. Asa Mufidah Fiddini supported the development of research instruments and conducted document analysis. Dita Purnama Sari contributed to literature review, manuscript revision, and final editing. All authors reviewed and approved the final version of the manuscript.

## Conflicts of Interest

All authors declare no conflict of interest.

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