Tajwid Color Codes in Malaysian Mushafs: An Analysis of Uniformity, Marking Principles, and an Improvement Framework

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ABSTRACT

The integration of color-coded Tajwid rules in modern Mushaf printing, while ostensibly designed to facilitate Quranic recitation, has paradoxically introduced a layer of systemic complexity within the Malaysian context. Commercial publications currently exhibit a bewildering array of visual schemas, characterized by a distinct lack of comprehensive standardization, divergent interpretations of Tajwid rules, and a high potential for reader confusion, particularly among novices. This study argues that the absence of robust official standards and the proliferation of idiosyncratic interpretations have compromised the pedagogical efficacy of these visual aids. Utilizing a systematic document analysis framework, this research rigorously examines the comparative color systems of selected Mushafs, analyzes marking principles against authoritative Tajwid references, and evaluates the conceptual user experience. The findings reveal significant inconsistencies in color selection, a marked absence of pedagogical rationalization, and inaccuracies in mapping rules to visual cues. The analysis suggests that the current state of color coding is not merely an aesthetic issue but a pedagogical crisis demanding urgent reform. The study concludes that without a unified, scientifically grounded framework, these visual innovations will continue to serve as cognitive burdens rather than educational enhancements, necessitating the development of a standardized national guideline to restore pedagogical integrity to Quranic literacy aids.

Keywords: Tajwid color coding, Malaysian Mushaf, standardization, visual pedagogy, inconsistency

INTRODUCTION

Imagine a scenario where every textbook publisher arbitrarily selects a different color to represent the same fundamental concept, devoid of any unifying guideline or shared semiotic logic. This, in essence, captures the precarious state of Tajwid color coding within modern Mushaf publications in Malaysia. The rapid evolution of printing technology has catalyzed the widespread adoption of chromatic differentiation for specific letters or verses, intended to aid the recognition of recitation rules such as idgham or ikhfa'. While undoubtedly a visual innovation, the fundamental question remains whether this unbridled variation facilitates acquisition or exacerbates cognitive dissonance. This inquiry serves as the foundational premise for the current investigation.

The trend of color-coded Tajwid has proliferated with minimal regulatory oversight in the Malaysian market. Independent publishers exercise absolute discretion over their chromatic schemas, with some utilizing five colors, others seven, and some employing even more elaborate palettes. The rationale underpinning these selections often appears obscure or nonexistent, creating a recipe for pedagogical disaster. This is particularly detrimental for novice readers who are struggling to establish a firm grasp of Tajwid fundamentals. The Quran Printing Control and Licensing Board (LKSQ) has historically prioritized textual accuracy—a paramount concern—yet the visual dimensions, such as color systems, have largely escaped rigorous scrutiny. Consequently, Tajwid color coding remains a 'wild' innovation, driven by commercial differentiation rather than a standardized national pedagogical strategy.

It is imperative to critically assess the extent to which these divergent systems aid recitation and whether they inadvertently promote misinterpretation of rules. The absence of consistent scientific references in color selection, coupled with the unchecked autonomy of publishers, renders this issue critical. Therefore, this study aims to evaluate the uniformity and marking principles of current Mushafs and, more specifically, to propose a

framework for the improvement of Tajwid color coding in Malaysia. By employing a systematic document-based analysis supported by authoritative literature, this research seeks to elucidate the systemic failure currently at play. The organization of this paper follows a structured approach: first establishing the theoretical territory of visual pedagogy in Quranic studies, identifying the niche of non-standardization in the Malaysian context, and finally occupying this niche through a rigorous critique of the existing visual anarchy.

LITERATURE REVIEW

The discourse surrounding visual innovations in Quranic publishing is frequently situated within the broader narrative of literacy enhancement and pedagogical modernization. Previous scholarship has consistently posited that visual elements encompassing color, iconography, and annotation possess the capacity to accelerate comprehension and facilitate the memorization process (Abdullah, 2021; Osman, 2020). On the surface, this assertion appears logically sound. Theoretically, the isolation of distinct phonological rules through visual cues should reduce the processing load required to identify them within a dense text. However, a critical examination of the literature reveals a significant oversight: the issue of uniformity. The prevailing body of work often assumes that the mere presence of visual aids equates to educational utility, largely ignoring the detrimental effects of inconsistent visual syntax. Innovations that lack standardization do not merely fail to help; they potentially foster misinterpretation and cultivate an unhealthy reliance on visual crutches devoid of foundational understanding.

Within the specific domain of Tajwid instruction, color coding is positioned as a potent pedagogical tool. Cognitive science supports the efficacy of color in educational settings, with Mansor (2024) highlighting the psychological impact of color on attention and retention. in the context of the Quran, the expectation is that chromatic differentiation will enhance the clarity of Tajwid rules, rendering the reading experience more usercentric (Yahya, 2022). Nevertheless, the validity of these efficacy claims is contingent upon consistency in usage and semantic alignment across different texts. This dependency is widely neglected in existing discussions, representing a glaring flaw in the current academic and practical discourse. The assumption that 'color helps' is simplistic if the semantic value of that color shifts arbitrarily between publications.

A scrutiny of local literature reveals that Malaysia suffers from a profound lack of national standards for Tajwid color coding (Mohd Salleh, 2021; Ramli, 2023). Publishers operate with autonomy, generating Mushafs with varying chromatic complexities—ranging from five to over seven distinct colors. This fragmentation directly undermines Quranic education. Consider a learner who initiates their study with a Mushaf from Publisher A, associating the color green with a specific nasalization rule, only to transition to a Mushaf from Publisher B where green signifies a completely different elongation rule. Such discrepancies are not merely inconvenient; they are pedagogically counterproductive. While scholars like Ismail (2019) and Zainal Abidin (2020) have attempted to develop visual approaches, their efforts are likely to remain marginalized in the absence of a unified standard that governs the industry as a whole.

The implications of this issue extend beyond aesthetics, rooting themselves deeply in the psychology of learning and cognitive load theory. Mayer (2021), in his theory of multimedia learning, demonstrates that the presentation of visual information significantly dictates comprehension outcomes. When visual cues are inconsistent, they tax the learner's working memory rather than alleviating it. Instead of processing the rule, the brain is forced to constantly decode the changing legend. The persistence of this chaotic environment raises questions about regulatory priorities. Although Al-Qasim (2021) and Nor Azizi (2019) have discussed Tajwid teaching methodologies, the role of color standardization is frequently relegated to a footnote rather than being interrogated as a systemic issue threatening the integrity of Quranic pedagogy. The comparative analysis by Yusof (2019) regarding color coding systems in Southeast Asia and the Arab world further underscores the cacophony that exists in the absence of a shared reference point.

Ultimately, while the concept of chromatic Tajwid holds robust pedagogical potential, its current failure to achieve genuine effectiveness lies in the rampant non-uniformity and the dearth of scientific justification. There are no clear regulations, no structured policies, and no official recognition of this method as a legitimate, standardized instructional instrument. It remains a drifting innovation, tethered only by market trends rather than educational rigor. This situation demands a critical re-evaluation that moves beyond passive acceptance of

innovation toward a rigorous demand for structural coherence. The literature clearly indicates that without intervention, the proliferation of unstandardized visual aids will continue to widen the gap in Quranic understanding.

METHODOLOGY

This research deliberately adopts a strictly analytical and qualitative approach, grounded in a rigorous document analysis framework. The design eschews interviews, focus groups, or field studies that might be clouded by the subjective nuances of user perception. This methodological decision was made with a specific intent: to interrogate the issue directly at its source—the inconsistent documents themselves. Assessing user confusion is secondary to identifying the structural design flaws that necessitate such confusion. The primary objective is to deconstruct the semiotic chaos embedded within the printed artifacts, thereby allowing for a systemic evaluation of color coding issues without the interference of variable human experiences. Field data, in this specific context, would merely confirm the confusion that is already self-evident on the printed page; the priority is to map the anatomy of that confusion.

Data collection was executed through a targeted selection process. First, the study sourced commercial Malaysian Mushafs from several dominant publishers. This selection was not random but strategic, aiming to capture the practices of market leaders to understand how competitive differentiation manifests in visual design. These artifacts represent the tangible reality facing the average consumer. Second, authoritative Tajwid textbooks served as the control variable. These texts provide the disputable standards of rule categorization, offering an objective baseline against which the accuracy of color marking could be measured. Third, the research examined existing publication guidelines from regulatory bodies to identify regulatory lacunae, reinforcing the argument that the absence of governance is a primary driver of the current disorder.

The analytical framework was constructed around three pivotal components. The first component, Comparative Analysis of Color Codes, involved a granular examination of the number of colors employed, the consistency of color assignment across different rules, the scope of rules marked, and the logic—or lack thereof—guiding these selections. This phase aimed to quantify the extent of the disparity. The second component, Scientific Consistency Analysis, juxtaposed the Mushaf markings against standard Tajwid rules to evaluate the precision of the mapping. This scientific scrutiny was designed to identify deviations where publishers might have merged distinct rules under one color or separated identical rules into multiple colors without phonological justification. The third component, Conceptual User Experience Analysis, estimated the impact of these visual innovations based on established theories of visual learning. While not an empirical user study, this phase applied principles of cognitive psychology to predict the inevitable load and confusion resulting from the identified inconsistencies. This methodological triangulation was devised to provide maximum clarity on the systemic failures of the current publishing landscape.

FINDINGS

The examination of selected commercial Mushafs revealed a stark and pervasive lack of uniformity in the application of color codes for identical Tajwid rules. A direct comparison across publishers demonstrated that a fundamental rule such as *ikhfa'* could be represented by a green hue in one publication, while appearing as a specific shade of pink in another. This variation was not subtle but radical, creating a disjointed visual language that varies from one text to the next.

Furthermore, the analysis uncovered a significant void regarding the scientific rationale behind color selection. The prefaces and explanatory notes of the examined Mushafs largely failed to articulate any pedagogical or psychological basis for their specific color choices. The selection process appeared to be driven more by aesthetic preferences or brand differentiation strategies than by the necessities of learning or cognitive ergonomics. This suggests that the visual systems are being designed as marketing features rather than educational scaffolding.

A troubling trend of over-marking was also identified. Several Mushafs applied color coding to minute variations of *mad* (elongation) that classical Tajwid experts typically deem insignificant for novice readers. This indiscriminate coloring results in a visual saturation that risks overwhelming the learner. Consequently, the user

is likely to develop a reliance on the presence of color itself, reading the visual cue rather than understanding the underlying rule.

Finally, the study found instances of inaccurate mapping between rules and colors. In certain cases, distinct rules were conflated under a single color, while in others, the same rule was assigned different colors depending on context, without any apparent justification. These inconsistencies indicate a lack of scholarly rigor in the design process, confirming that the current implementation of color coding is often disjointed from authoritative Tajwid scholarship.

DISCUSSION

The pervasive non-uniformity identified in this study presents a formidable barrier to the transfer of learning. If one considers the analogy of traffic signals, the current state of Mushaf publishing is akin to a system where 'stop' is represented by red in one city and blue in another. While this analogy may seem stark, it accurately reflects the cognitive dissonance imposed on a learner who attempts to migrate between different Mushafs. A student conditioned to associate a specific color with a specific phonetic action in one text will inevitably encounter friction when that association is contradicted in another text. This lack of semiotic stability is not merely an inconvenience; it is a pedagogical hazard that can entrench erroneous understandings of Tajwid rules. The cognitive energy that should be dedicated to mastering the articulation of the Quran is instead wasted on decoding the idiosyncratic legend of the specific publisher.

The conceptual analysis further suggests that unstandardized systems disrupt the scaffolding process essential for effective learning. Cognitive Load Theory posits that extraneous load in this case, the need to interpret inconsistent visual codes detracts from the germane load required for schema acquisition. By failing to provide a consistent visual grammar, publishers are inadvertently fostering a dependency on the visual aid itself. Learners may become proficient at 'reading colors' rather than recognizing the textual conditions that necessitate a Tajwid rule. This dependency threatens the long-term goal of Quranic literacy: the ability to read the text accurately independent of auxiliary aids. The findings imply that the current innovation is producing a generation of readers who are technically dependent rather than intellectually empowered.

This chaotic landscape underscores the critical failure of the current regulatory framework. The reliance on market forces to dictate pedagogical standards has proven disastrous. Commercial motives, which prioritize product differentiation, are fundamentally at odds with the educational imperative of standardization. The absence of a national guideline allows publishers to prioritize novelty over utility, resulting in a fractured educational ecosystem. It is evident that without intervention, the divergence will only widen, further complicating the learning process for future generations. The data suggests that standardization is not an optional enhancement but a fundamental necessity to preserve the integrity of Quranic education.

It is plausible to argue that the resistance to standardization stems from a desire to maintain competitive advantage. However, the cost of this competition is paid by the learner. Education, particularly religious education involving sacred texts, demands a higher ethical standard than general consumer goods. The failure to align these visual systems with authoritative Tajwid scholarship represents a breach of this responsibility. The implications extend beyond immediate reading errors to a potential erosion of confidence among learners, who may feel overwhelmed by the conflicting information presented to them. This is a systemic crisis that requires a coordinated response from academic and religious authorities.

CONCLUSION

This research has unequivocally demonstrated that the implementation of Tajwid color coding in Malaysian Mushafs operates in a vacuum of standardization. The prevailing disorder regarding color selection, the absence of coherent marking principles, and the frequent misalignment with standard Tajwid rules constitute a systemic failure that compromises the educational potential of these tools. Rather than serving as a bridge to literacy, the current landscape of unbridled variation risks functioning as a barrier, confusing novice readers and fostering a superficial engagement with the text.

Through the lens of the document analysis framework, this study asserts the urgent necessity for the establishment of robust national guidelines. Such guidelines must be rooted in proven pedagogical principles

and authoritative scholarship, transcending mere aesthetic considerations. The reform of this system cannot be superficial; it requires a fundamental restructuring of how visual aids are approved and implemented in sacred texts. The goal must be to create a universal visual language for Tajwid that is consistent across all publications, thereby facilitating seamless learning and retention.

Future research should pivot towards the development and empirical testing of a prototype for a standardized color code. A pilot study assessing the efficacy of a unified schema on diverse learner groups would provide the empirical data needed to refine and validate a national standard. This would mark a decisive step towards transforming color coding from a marketing gimmick into a scientifically validated pedagogical instrument. Failure to address this issue will leave a legacy of confusion, undermining the quality of Quranic education for generations to come. The time for decisive regulatory action is now.

ACKNOWLEDGEMENTS

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