



BRIDGING THE DIGITAL DIVIDE IN EDUCATION: A SYSTEMATIC REVIEW (SLR-PRISMA) OF DIGITAL INCLUSION STRATEGIES

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Abstract:

This study examines the management of sports extracurricular activities as a strategic medium for students' mental refreshment during intensive Al-Qur'an memorization programs. The background of this research is based on the phenomenon of high cognitive load and the risk of psychological burnout faced by students in tahfidz-based Islamic educational institutions. Such conditions require a management system capable of balancing spiritual demands with mental health and physical fitness. This study aims to describe in-depth the management processes, including synchronous schedule planning, resource organization, implementation of contextual sports activities, and the evaluation of students' mental readiness. Using a library research method with a qualitative approach, the results indicate that well-structured extracurricular management functions as a stress-relief medium and concentration enhancer. Through POAC management functions (Planning, Organizing, Actuating, and Controlling), sports are proven to provide positive impacts on emotional stability, which supports memorization success. Overall, harmoniously integrated curriculum management significantly supports the holistic development of students in both physical and spiritual aspects.

Keywords: *Extracurricular Management, Tahfidz Al-Qur'an, Sports Activities, Mental Refreshment.*

INTRODUCTION

As an Islamic educational institution, the tahfidz Islamic boarding school (pesantren) plays a strategic role in forming a generation of Al-Qur'an memorizers who are not only spiritually superior, but also intellectually and emotionally balanced (S. N. A. Hasanah, 2026). This role places the pesantren at the forefront of maintaining the purity of revelation through the memorization sanad of the students (santri). However, this process is not an easy journey. Memorizing the Al-Qur'an intensively and continuously demands high concentration, time discipline, and mental readiness from the students. The pressure to maintain the correctness (itqan) of memorization amidst an extremely tight schedule often creates extraordinary neurological tension. This condition has the potential to cause mental fatigue (burnout) and boredom if it is not balanced with the management of adequate supporting activities (Rahman, 2026).

Therefore, pesantrens need to develop an educational management system that pays attention to the balance between cognitive-religious demands and the mental health of students through measured physical activities (Aisyah et al., 2022). This approach ensures that the educational process remains humane and sustainable in accordance with the principle of wasathiyah (moderation/balance) in Islam. The mental health of students is a determinant factor that directly affects the effectiveness of the Al-Qur'an tahfidz process (Umiarso et al., 2021). A healthy soul is the foundation for a clear mind. Students with a stable psychological condition tend to have higher learning motivation, sharper memory, and resilience in maintaining the quality of memorization (muraja'ah).

Explains that learning processes taking place in a positive psychological atmosphere will enhance cognitive functions, particularly long-term memory and concentration (R. Hasanah et al., 2024). Neuropsychologically, positive emotions trigger the brain to release neurotransmitters that strengthen memory synapses. Conversely, excessive pressure without any refreshment medium will inhibit the process of storing information in the brain. Prolonged tension will actually result in a "stuck" phenomenon in memorizing. Thus, mental refreshment becomes an essential need in modern pesantren education systems to create a learning ecosystem that is enjoyable yet disciplined.

One effective medium to support mental refreshment is sports. In Islamic tradition, physical strength is highly valued as a support for spiritual strength (a strong believer is more loved by Allah) (Sugiono, 2022). Physical activity serves not only to improve physical fitness, but also has a significant impact on psychological well-being, such as lowering cortisol (stress) levels and increasing endorphins that improve mood. Sports provide an intermezzo effect that refreshes the tired nerves of the brain. The World Health Organization states that regular physical activity contributes positively to the mental health and quality of life of learners (Rofik & Mudarris, 2024). Shifting energy through physical activities is proven to reduce students' anxiety. In the context of the pesantren, sports can be a strategic medium to maintain balance between the spiritual (ruhiyah) and physical (jasmaniyah) activities of the students, so they remain fit in carrying out their memorization duties (Hefniy et al., 2022).

However, the effectiveness of sports as a medium for mental refreshment highly depends on the quality of its management. Improperly managed physical activities can be counterproductive if they cause excessive physical fatigue that disrupts primary study time. The management of sports extracurriculars includes the processes of planning, organizing, actuating, and evaluating activities systematically (Novita, 2025). This involves selecting appropriate types of sports, proportional duration, and a conducive environment. Reinforces that good educational organization management will produce sustainable program activities that have a real impact on student development. Without structured governance, sports activities in pesantrens are often seen only as additional activities that lack clear targets for the students' mental health (Khomairotusshiyamah, 2026). Therefore, professional management is the main key to optimizing the potential of sports.

Several previous studies have discussed tahfidz curriculum management and physical health separately. Research by Arifin focuses more on memorization methods, while Fitriani (2021) discusses stress management in general. However, not many have touched upon the realm of physical governance as a cognitive catalyst. The research gap found is the lack of studies specifically integrating sports extracurricular management as a "cognitive support instrument" for Al-Qur'an memorizers. This provides urgency to this

study. The novelty of this paper lies in the integrative analysis of management functions (POAC) that positions sports not merely as a hobby, but as a professionally managed mental refreshment medium to support the academic and spiritual success of students. Based on this exposure, the purpose of this study is to describe and analyze sports extracurricular management comprehensively as a medium for mental refreshment for students undergoing the Al-Qur'an memorization process.

RESEARCH METHODS

In compiling this research, the researcher uses descriptive research, which systematically and accurately explains phenomena, facts, or events regarding the characteristics of a specific population or region using a library research approach. This type of research tends not to require searching for or explaining existing relationships or testing hypotheses. The goal is to capture social reality objectively and deeply without providing special treatments to the research subjects.

The library research methodology is often known as a naturalistic research method because the research is conducted in its natural setting. Sugiyono states that the library research method is based on postpositivism philosophy, used to study objects in natural conditions, where the key instrument is the researcher themselves (human instrument), data collection is done through triangulation (combination), data analysis is qualitative/library-based, and the results emphasize substance rather than generalization.

Furthermore, this research method emphasizes a deep understanding of a problem rather than conducting a generalized study. In-depth analysis techniques are used by conducting case-by-case reviews because according to qualitative methodology, each problem has unique characteristics distinct from others (Mundiri & Manshur, 2020). This approach allows the researcher to capture meaning behind behaviors, policies, or texts that form the object of study. The researcher plays an active role as the main instrument who not only gathers raw data but also interprets texts and written data to obtain credible research results.

RESULTS AND DISCUSSION

Theoretical Review and Research Variable Indicators

Management is essentially a process of organizing, regulating, managing human resources, and controlling to achieve organizational targets effectively and efficiently (Sain, 2026). Good extracurricular governance must fulfill four main indicators of management functions based on the synthesis of thought by Bararah (2023), Zakiyah & Munawaroh (2018), and Hartina & Siahaan (2024): Planning: Formulating schedules, budgets, selecting sports branches, and determining instructor targets thoroughly at the beginning of the academic year. Organizing: Clear division of tasks among musyirif (wardens), sports instructors, and the tahfidz curriculum section. Actuating: Mobilizing students to actively move in accordance with agreed-upon discipline rules. Controlling: Periodic supervision to ensure that physical intensity does not create extreme fatigue that is counterproductive.

In educational psychology, mental refreshment is viewed as a crucial phase to restore cognitive function and temporarily detach from routine pressures (psychological detachment). Based on cognitive psychology studies, mental burnout is caused by three factors: limited memory capacity (Restorative Theory), internal motivation stagnation, and central nervous system fatigue in processing new data. Theoretical studies by Iwasaki (2001) and Sonnentag &

Fritz (2007) establish four main indicators of successful mental refreshment: (1) The appearance of a relaxed feeling; (2) Restored concentration and sharp focus; (3) The presence of positive emotions; (4) Psychological adaptability to new task loads.

Tahfidz Al-Qur'an is a high-level spiritual and cognitive process to systematically memorize holy verses (Sa'dulloh, 2008). According to Sa'dulloh the success level of tahfidz is measured through four indicators: Fluency (Fashahah), Accuracy (Itqan), Consistency of Muraja'ah, and Quantity of Achievement (Ziyadah).

Document Review Results and Analysis of POAC Functions in Pesantrens

Curriculum document data shows that modern tahfidz pesantrens that implement structured sports governance succeed in minimizing student drop-out rates caused by academic stress. Findings regarding the implementation of POAC management functions are detailed as follows:

The sports program planning is designed at the beginning of the academic year through coordination meetings between the Pesantren Leadership (Kiai), the head of the boarding section, and the person in charge of tahfidz. The program is divided into three timelines: Annual Program (sports week), Semester Program (inter-class league), and Routine Weekly Program (on pesantren holidays/Friday). Strict integration with the educational calendar is conducted so that physical training schedules are placed exactly after the peak time for memorization deposits (ziyadah) is completed. Organizing is carried out with a clear division of authority: musyrif is in charge of supervising attendance, while sports instructors focus on technical aspects of the training (Rozi et al., 2021).

Program actuating is driven through transformational leadership communication from the figure of a Kiai by applying Supportive Theory and Humanistic Theory. Regular controlling is carried out to assess whether the duration, intensity, and types of sports (such as archery, horse riding, swimming, futsal, or badminton) run in harmony with the main target of tahfidz (Haisuma et al., 2026).

Characteristics and Classification of Sports Branches in Pesantrens

The implementation of sports management within the institution is systematically classified into three major categories based on the characteristics of each sport and its contribution to students' physical, psychological, and cognitive development (Sudarwan, 2025). This classification demonstrates that sports activities are not merely recreational programs but constitute an integral component of the institutional strategy for maintaining students' learning performance, particularly during intensive *tahfidz* and religious learning activities.

The first category consists of accuracy and concentration sports, represented primarily by archery. This sport functions as a cognitive strengthening instrument that requires emotional stability, calmness, precision, and sustained concentration (Razaq, 2026). The management of archery activities is closely aligned with the educational objective of developing *itqan* (precision and excellence), enabling students to cultivate self-control and focused attention that support the accurate memorization and recitation of Qur'anic verses. Consequently, archery serves not only as physical exercise but also as a medium for strengthening students' mental discipline and cognitive endurance.

The second category includes recreative and aerobic sports, particularly swimming and gymnastics. These activities are designed to reduce muscle tension, improve blood circulation, and alleviate motor nerve fatigue resulting from prolonged static sitting positions during *tahfidz* halaqahs. Through scheduled aerobic exercise sessions, students experience physical relaxation and improved physiological recovery, enabling them to maintain higher levels of concentration and learning motivation (Zain, 2026). This finding suggests that appropriate physical activity contributes significantly to balancing intensive religious learning with students' overall health and well-being.

The third category comprises team-based competitive sports, including futsal, badminton, and volleyball. These sports are managed through structured internal leagues that encourage teamwork, healthy competition, and social interaction among students. More importantly, they function as an effective medium of emotional catharsis by providing opportunities for students to release accumulated psychological stress and reduce learning-related burnout (Sa'diyah et al., 2025). Participation in competitive team sports also strengthens communication skills, leadership, cooperation, and mutual respect, all of which contribute positively to students' social and emotional development.

Overall, the classification of sports management reflects a holistic educational approach that integrates cognitive enhancement, physical fitness, emotional regulation, and social competence. The strategic organization of different sports according to their respective functions supports students' academic achievement while promoting balanced personal development within the Islamic boarding school environment.

Discussion and Integrative Analysis Between Variables

The findings reveal a strong functional relationship between sports management and the effectiveness of intensive *tahfidz* learning (Abdurrahman, 2025). The high cognitive demands experienced by students during continuous Qur'anic memorization require flexible educational management that incorporates regular recovery periods through structured physical activities. Such managerial flexibility enables students to maintain psychological balance while sustaining high levels of academic engagement. This finding supports the argument that intensive learning environments should be complemented by well-organized recreational programs to prevent cognitive overload and learning fatigue.

From a neuropsychological perspective, effective sports management contributes to the recovery of students' central nervous system by providing appropriately scheduled physical exercise. Regular participation in sports allows students to restore mental energy after prolonged memorization sessions, thereby improving cognitive readiness for subsequent learning activities (Abdurrahman, 2025). Furthermore, from a physiological perspective, moderate physical exercise stimulates the reduction of cortisol, the primary stress hormone, while simultaneously increasing the release of endorphins that promote positive emotions, relaxation, and psychological well-being. These biological responses create favorable conditions for sustained concentration and emotional stability throughout the learning process.

The interaction between physical activity and cognitive performance also demonstrates important educational implications. When students experience optimal mental refreshment, their capacity for long-term memory consolidation and sustained attention increases significantly. As a result, the quality of Qur'anic memorization improves in several measurable aspects. Students are able to perform *ziyadah* (adding new memorization) more efficiently, maintain

greater consistency in *muraja'ah* (systematic revision of previously memorized verses), and achieve higher levels of *itqan* (accuracy and mastery) due to reduced psychological tension and improved concentration. These outcomes indicate that sports management serves not merely as a complementary extracurricular activity but as a strategic educational intervention that directly supports students' academic achievement.

Overall, the interaction between sports management and *tahfidz* performance illustrates a holistic educational model in which physical well-being, emotional regulation, and cognitive development reinforce one another. The integration of structured sports programs into intensive Islamic learning environments contributes to improved learning outcomes while fostering students' physical and psychological resilience (Khofsah, 2026). These findings highlight the importance of incorporating evidence-based sports management into educational policies designed to enhance both student well-being and academic excellence.

CONCLUSION

Based on the results of document analysis and integrative discussion, it can be concluded that: Sports Extracurricular Management functions implemented systematically through POAC prove to be the main foundation in transforming the image of sports from merely additional recreative activities into professional cognitive support instruments in *tahfidz pondok pesantrens*.

The Mental Refreshment of students is empirically influenced positively by the quality of sports management. Measured physical activity interventions are able to suppress cortisol hormones and trigger endorphins, fulfilling mental refreshment indicators namely the presence of positive emotions and central nervous system recovery. The quality and achievement of Al-Qur'an Tahfidz among students experience significant improvements as a direct implication of a fresh mental condition. When burnout is eroded, the long-term memory capacity and concentration of students are at their peak performance, optimizing *ziyadah*, *muraja'ah*, and *itqan* aspects.

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