AN ANALYSIS OF CURRICULUM MANAGEMENT AND ITS IMPACT ON STUDENTS' SPATIAL ABILITY.docx

by bgudhueiakoh@gmail.com bgudhueiakoh@gmail.com

Submission date: 17-Feb-2026 05:42PM (UTC+0900)

Submission ID: 2876541002

File name:
AN_ANALYSIS_OF_CURRICULUM_MANAGEMENT_AND_ITS_IMPACT_ON_STUDENTS_SPATIAL_ABILITY.docx
(294.45K)

Word count: 2096

Character count: 14492

JURNAL MANAJEMEN PENDIDIKAN ISLAM
UNIVERSITAS ISLAM NEGERI SUMATERA UTARA
Email: jurnal-benchmarking@uinsu.ac.id
Available Online at: https://jurnal.uinsu.ac.id/index.php/benchmarking/index
BENCHMARKING
JURNAL MANAJEMEN PENDIDIKAN ISLAM

AN ANALYSIS OF CURRICULUM MANAGEMENT AND ITS IMPACT ON STUDENTS' SPATIAL ABILITY

Putri Yulianti[1], Eka Putra[2], Author
Institut Agama Islam Negeri Kerinci, Indonesia[12n]
putriyulianti300703@gmail.com[1], Email Author[2], Email Author

Received:
Revised:
Accepted:

Abstract

This study is motivated by the importance of students' spatial abilities in supporting learning achievement, particularly in subjects that require visual understanding and spatial representation. Spatial ability is influenced not only by students' cognitive factors but also by the effectiveness of curriculum management implemented in the learning process. This study aims to analyze the influence of curriculum management on students' spatial abilities. The research employed a qualitative approach using the Systematic Literature Review (SLR) method. Data were collected from various relevant national and international journal articles and analyzed through identification, selection, evaluation, and synthesis stages. The findings indicate that effective curriculum management, including planning, implementation, and evaluation, plays a significant role in enhancing students' spatial abilities. A well-structured and contextual curriculum promotes meaningful learning and supports the development of visualization skills and spatial understanding. Therefore, improving curriculum management is a crucial factor in enhancing both students' spatial abilities and the overall quality of learning.

Keywords: curriculum management, spatial ability, learning process, systematic literature review.

(*) Corresponding Author: **Putri Yulianti1, Email Address, Contact Phone Number**

INTRODUCTION

Education plays a strategic role in shaping the quality of human resources capable of adapting to and competing in the rapidly evolving global era. Education is not merely a process of transferring knowledge but also a means of developing character and optimizing individual potential (Mangun et al., 2025).

In the context of Indonesian national education, Ki Hajar Dewantara emphasized that education is an effort to prepare individuals to live meaningfully in society and culture. Teachers, as agents of change, are responsible for guiding and developing students' potential in accordance with their characteristics and the demands of the times (Nugroho et al., 2023).

One of the essential competencies that must be developed in the learning process is spatial ability. Spatial ability is crucial in daily life, particularly in understanding relationships among objects in space (Rahman et al., 2022). It involves the capacity to comprehend, store, recall, and mentally manipulate spatial information (Teapon & Kusumah, 2023). This ability includes spatial visualization, mental rotation, and spatial orientation, which enable individuals to perceive, manipulate, and imagine two- or three-dimensional objects (Ismi et al., 2021; Alghadari, 2020). In mathematics learning, spatial ability is especially important for understanding geometry, three-dimensional shapes, and other visual representations (Ayu Yuniar Anggo, Sahidi, 2022).

However, students' spatial ability does not develop automatically. Its development largely depends on the quality of the learning process designed within the curriculum. Effective curriculum management covering planning, implementation, and evaluation plays a significant role in creating learning experiences that stimulate the development of students' spatial abilities (Amyus & Hamami, 2024; Dalillah et al., 2025). The current implementation of curriculum emphasizes student-centered learning and contextual, meaningful instruction, aiming to equip students with essential life skills applicable in society (Hidayat et al., 2025). Strong spatial ability also enhances students' engagement and problem-solving skills in mathematics learning contexts (Inayah & Safari, 2025).

Although previous studies have examined spatial ability and curriculum management separately, comprehensive studies analyzing the relationship between curriculum management and students' spatial ability remain limited. Therefore, this study aims to systematically analyze previous research findings regarding the impact of curriculum management on students' spatial abilities using a Systematic Literature Review (SLR) approach.

RESEARCH METHOD

This study employed a qualitative approach using the Systematic Literature Review (SLR) method to comprehensively examine the impact of curriculum management on students' spatial abilities. The SLR approach was selected to systematically collect, evaluate, and synthesize findings from previous studies in an objective and structured manner. The review process followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to ensure transparency and replicability.

The data sources consisted of scientific articles published in national and international journals. Literature searches were conducted through Google Scholar and various educational journal databases using keywords such as curriculum management, spatial ability, and their combinations with Boolean operators. The reviewed articles were limited to publications from the last ten years to ensure relevance to current curriculum developments.

The selection process followed PRISMA stages, including identification, screening, eligibility assessment, and inclusion. Initially, articles were screened based on titles and abstracts to determine relevance. Subsequently, full-text reviews were conducted for articles that met the preliminary criteria. Articles that were duplicated, methodologically unclear, or irrelevant to the research focus were excluded.

The inclusion criteria required that the selected studies discuss curriculum management or curriculum implementation in the learning process and examine students' spatial abilities, either directly or through specific instructional approaches. Only peer-reviewed articles published in Indonesian or English were included, while non-scientific publications and opinion-based articles were excluded.

Data collection was conducted through documentation techniques by extracting essential information from each selected article, including research objectives, methodologies, learning contexts, and key findings related to curriculum management and spatial ability. The collected data were analyzed using thematic analysis by categorizing findings into major themes such as curriculum planning, implementation, evaluation, and their impact on students' spatial abilities.

To ensure validity, consistent selection criteria were applied, credible journal sources were prioritized, and cross-study comparisons were conducted to generate objective and comprehensive conclusions.

RESEARCH RESULTS AND DISCUSSION

Research Results

This study aims to examine the impact of curriculum management on students' spatial abilities through a Systematic Literature Review (SLR). The findings were obtained by analyzing relevant national and international journal articles, reference books, and prior research reports discussing curriculum management and spatial ability.

The review results indicate that curriculum management plays a significant role in enhancing students' spatial abilities. Empirical findings show a consistent relationship between curriculum planning, implementation, and evaluation and the improvement of students' spatial skills (Nurussalami & Muhamamd Fadhil, 2024). Well-organized and systematically managed curricula create learning environments that support spatial visualization, spatial reasoning, and understanding of relationships among objects in space. Conversely, poorly managed curricula tend to limit learning variations and reduce opportunities for students to develop spatial competencies (Agustus et al., 2025).

In terms of curriculum planning, effective planning is characterized by clear learning objectives, relevant material selection, and appropriate teaching methods and media. Curricula incorporating visual-based activities, concrete models, and contextual approaches positively contribute to students' spatial development (Rahayu et al., 2023). Furthermore, innovative approaches such as problem-based learning and realistic approaches increase students' active engagement in learning processes (Widiansyah et al., 2024).

Regarding curriculum implementation, the findings highlight the crucial role of teachers in translating curriculum design into meaningful classroom activities. The use of visual media, manipulative tools, and educational technology significantly enhances students' spatial visualization and conceptual understanding (Anggraini et al., 2025). Flexible curricula that allow instructional adaptation based on students' characteristics also support more effective learning outcomes.

In the aspect of curriculum evaluation, continuous and comprehensive assessment provides clear insights into students' spatial development. Evaluation methods include written tests, performance assessments, project assignments, and classroom observations. Systematic curriculum evaluation enables schools to identify strengths and weaknesses in curriculum implementation and continuously improve instructional quality (Mardiah, 2023).

Overall, the findings demonstrate that curriculum management—covering planning, implementation, and evaluation—has a significant impact on students' spatial abilities. These interconnected components collectively contribute to creating high-quality learning experiences.

Discussion

The findings confirm that curriculum planning serves as the foundational element in developing students' spatial abilities. Well-structured planning involving stakeholder participation enables teachers to design learning objectives, materials, and strategies aligned with students' characteristics. This aligns with educational management theory, which emphasizes planning as a critical determinant of program success (Yolanda et al., 2024). Curricula integrating visual exploration, spatial activities, and contextual learning provide meaningful experiences that strengthen spatial understanding.

The implementation phase further reinforces the importance of teachers as key curriculum executors. Student-centered learning approaches and active engagement strategies enhance higher-order cognitive development, including spatial reasoning (Jatmika & Yogyakarta, n.d.). Learning environments that encourage exploration, discussion, and problem-solving foster reflective and analytical thinking processes (Mazna

et al., 2024). These processes indirectly strengthen students' ability to interpret and manipulate spatial representations.

Curriculum evaluation also plays a strategic role in ensuring continuous improvement. Evaluation that emphasizes both learning processes and outcomes allows teachers to adjust instructional strategies to better support spatial development. Comprehensive assessment covering cognitive, affective, and psychomotor aspects provides a holistic understanding of students' progress.

Theoretically, these findings support constructivist learning theory, which posits that knowledge is actively constructed through interaction with the learning environment. Effective curriculum management facilitates such interactions and creates meaningful learning experiences that enhance spatial abilities.

In conclusion, effective curriculum management is a key factor in fostering students' spatial abilities. Systematic planning, innovative implementation, and continuous evaluation are interrelated components that collectively enhance learning quality. Strengthening curriculum management in schools should therefore become a priority for educational stakeholders to optimize students' spatial development.

CONCLUSION

Based on the findings of this Systematic Literature Review, it can be concluded that curriculum management plays a significant role in enhancing students' spatial abilities. The analysis demonstrates that effective curriculum planning, innovative implementation, and continuous evaluation collectively contribute to the development of spatial visualization, mental rotation, and spatial reasoning skills. Well-structured curricula that integrate contextual learning, visual activities, and student-centered approaches create meaningful learning experiences that support spatial development.

Furthermore, the findings indicate that curriculum evaluation serves as a strategic mechanism for identifying strengths and weaknesses in instructional practices, enabling continuous improvement in learning quality. Therefore, strengthening curriculum management in educational institutions is essential to optimize students' spatial abilities and overall academic achievement.

SUGGESTIONS/RECOMMENDATIONS

Based on the findings, several recommendations can be proposed:

1. Schools should strengthen curriculum planning by integrating visual-based and spatial-oriented learning activities across subjects, particularly in mathematics.
2. Teachers are encouraged to implement innovative and student-centered instructional strategies that actively engage students in spatial exploration and problem-solving.
3. Future research may explore empirical investigations involving classroom-based interventions to measure the direct impact of curriculum management on students' spatial abilities.

REFERENCES

Agustus, N., Aprilia, N. A., & Sastrawati, E. (2025). *Implementasi Kurikulum Pendidikan dalam Menghadapi Masalah Kualitas Pembelajaran meningkatkan mutu pembelajaran . Namun , hasil pengamatan awal terhadap penerapannya*. *September*.

Alghadari, F. (2020). *Bagaimana Mengembangkan Kemampuan Spasial dalam Pembelajaran Matematika di Sekolah ?: Suatu Tinjauan Literatur*. *1*, 60–72. https://doi.org/10.37640/jim.v1i2.370

Amyus, R. S., & Hamami, A. R. (2024). *Manajemen Kurikulum dan Pembelajaran*. *8*,

48324–48332.
Anggraini, T., Irma, A., & Revita, R. (2025). *Tantangan dan Solusi dalam Implementasi Kompetensi Pedagogik di Sekolah Menengah Atas Sekolah Tinggi Islam Blambangan (STIB) Banyuwangi*. *1*, 30–45.
Ayu Yuniar Anggo, Sahidi, S. (2022). *ANALISIS KEMAMPUAN PERSEPSI DAN VISUAL*. *3*(Juli), 1–11.
Dalillah, A., Indrawan, T. J., & Syaifudin, M. (2025). *Manajemen Kurikulum sebagai Strategi Peningkatan Mutu Pendidikan*. *9*, 19263–19268.
Hidayat, M. A., Agustin, D. T., Hana, N., Ramadhani, R., & Ayu, D. (2025). *Keunggulan Implementasi Kurikulum Merdeka Berbasis Pendekatan Deep Learning di SDN 1 Sungai Besar*. *10*, 251–264.
Inayah, Y., & Safari, Y. (2025). *Inovasi Media Pembelajaran Matematika untuk Meningkatkan Pemahaman Siswa Sekolah Dasar*. *9*, 125–134.
Ismi, K., Kusaeri, A., Riska, K., Kurniawati, A., & Perwira, H. R. (2021). *PERBEDAAN GENDER SISWA KELAS VIII*. *4*(1), 53–62.
Jatmika, H. M., & Yogyakarta, U. N. (n.d.). *Pemanfaatan Media Visual dalam Menunjang Pembelajaran Pendidikan Jasmani di Sekolah Dasar*. *3*(1), 89–99.
Mangun, J. R., Raya, M., Rw, R. T., & Gadung, K. P. (2025). *MEMBANGUN GENERASI EMAS : PERAN PENDIDIKAN DALAM MEMBENTUK MASA DEPAN BANGSA*
Mardiah, A. S. (2023). *EL-DARISA : Jurnal Pendidikan Islam*. *2*, 1–15.
Mazna, U., Nazirah, F., Farhana, I., & Marsitah, I. (2024). *Perencanaan Pembelajaran Yang Interaktif Menumbuhkan Critical Thinking Siswa Dalam*. *4*, 1–10.
Nugroho, G. B., Studi, P., & Pendidikan, F. (2023). *BASIS DALAM MERDEKA BELAJAR UNTUK MENCETAK MANUSIA INDONESIA BERKARAKTER*. *21*(1), 28–40. https://doi.org/10.25170/psikoedukasi.v21i1.4374
Nurussalami, & Muhamamd Fadhil. (2024). *Mimbar Akademika, Volume 9, Nomor 2, Edisi Juli-Desember 2024*. *9*, 87–107.
Rahayu, M. S., Hasan, I., Asmendri, A., & Sari, M. (2023). Relavansi Kurikulum Dan Pembelajaran Dalam Pendidikan. *Dharmas Education Journal (DE_Journal)*, *4*(1), 108–118. https://doi.org/10.56667/dejournal.v4i1.925
Rahman, T., Saputra, J., Pasundan, U., Pasundan, U., Penemuan, M., & Berbantuan, T. (2022). *MELALUI MODEL PENEMUAN TERBIMBING BERBANTUAN*. *7*, 50–59.
Teapon, N., & Kusumah, Y. S. (2023). Analisis Kemampuan Spatial Siswa Sekolah Menengah Pertama Berdasarkan Teori Hubert Maier. *Proximal: Jurnal Penelitian Matsematika Dan Pendidikan Matematika*, *6*(2), 236–245. https://doi.org/10.30605/proximal.v6i2.2796
Widiansyah, S., Anam, A., Raya, A., Salsabilla, A., Khulaiyah, N., Efendi, P., Nakhlah, A. A., Azzahra, R., Sultan, U., Tirtayasa, A., & Serang, K. (2024). *Efektivitas pembelajaran berbasis masalah dalam meningkatkan pemahaman siswa sma pada kurikulum merdeka*. *2*(12).
Yolanda, A., Sihotang, M., Zebua, J. A., & Hutasoit, M. (2024). *Strategi Pembelajaran Kontekstual untuk Meningkatkan Pemahaman Konsep Siswa Sekolah Dasar*. *2*(3).

AN ANALYSIS OF CURRICULUM MANAGEMENT AND ITS IMPACT ON STUDENTS' SPATIAL ABILITY.docx

ORIGINALITY REPORT

8%	6%	4%	3%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	unsworks.unsw.edu.au Internet Source	1%
2	ejournal.lucp.net Internet Source	1%
3	Adi Tia Ningsih, Budi Handoyo, Oktaviani Adhi Suciptaningsih. "Gender Differences in Students' Spatial Abilities: A Systematic Literature Review Analysis in Educational Contexts", Jurnal Pendidikan Progresif, 2025 Publication	1%
4	www.edunesia.org Internet Source	1%
5	Submitted to University of Nottingham Student Paper	1%
6	Nur Fitriyah Indraswari, Raniati Raniati, Kurratul Aini. "Development of Module Based on Higher Order Thinking Skills on Cylinder and Cone Matter", Jurnal Pendidikan Matematika (JUPITEK), 2025 Publication	1%
7	equilibrium.uniku.ac.id Internet Source	1%
8	Nabila Artia Nada, Reva Nisa Kamilah, Ichsan Fauzi Rachman. "Pengaruh Projek P5 Berbasis Isu Lingkungan Terhadap Kemampuan	<1%

Membaca Siswa Sekolah Dasar", Jurnal Pendidikan Guru Sekolah Dasar, 2025
Publication

9	ijeks.com Internet Source	<1%
10	jurnal.iicet.org Internet Source	<1%

Exclude quotes	On	Exclude matches	Off
Exclude bibliography	On		