JOURNAL OF INNOVATION AND RESEARCH IN PRIMARY EDUCATION | ISSN 2829-775X
Vol. 5, No. 1, 2026, 528-541
https://doi.org/10.56916/jirpe.v5i1.2777

Enhancing Academic Competitiveness Through Strategic Curriculum Development Management

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Keywords
curriculum management
academic competitiveness
university entrance examinations
educational quality
secondary education

Article History
Received 2025-11-04
Accepted 2026-01-16

Abstract
Gaining entry into state universities through competitive selection mechanisms requires systematic academic preparation beyond individual aptitude, necessitating effective curriculum development management. However, misalignment between competency-based curriculum implementation and examination-focused selection requirements poses significant challenges for secondary schools. This qualitative case study examined curriculum development management at SMAN 1 Singaparna and SMAN 2 Singaparna using semi-structured interviews, systematic observations, and document analysis. Data were analyzed through Miles, Huberman, and Saldaña's interactive model involving data condensation, display, and conclusion drawing. Both institutions implemented systematic curriculum management through collaborative planning involving multiple stakeholders, coordinated organizational structures with clear role distribution, adaptive implementation integrating HOTS-based instruction with examination preparation, and multidimensional evaluation frameworks. Strategic responses to challenges included developing internal resource banks, establishing partnerships with online learning platforms, implementing alumni mentoring programs, and scheduling intensive preparation during post-examination periods. Despite infrastructure limitations, uneven teacher capacity, temporal constraints, and policy instability, both schools demonstrated organizational innovation and teacher agency in balancing comprehensive education with competitive examination preparation. Findings demonstrate that curriculum-assessment misalignment can be addressed through strategic integration at planning and implementation stages, extending curriculum management theory to competitive contexts and providing actionable insights for educational administrators navigating similar challenges while maintaining educational integrity.

INTRODUCTION

Education serves as a fundamental pillar in developing a nation's human capital and ensuring its competitiveness in an increasingly interconnected global landscape (Sanga & Wangdra, 2023; Shastry, 2012). As noted by Spring (2014), global education policies are increasingly shaped by human capital ideology, with organizations like the OECD and World Bank promoting standardized education models designed to enhance global competitiveness. In the contemporary context of rapid globalization and intensifying competition, students' success in gaining admission to state universities (Perguruan Tinggi Negeri/PTN) has emerged as a critical indicator of educational quality at the senior high school level. This phenomenon reflects not only individual achievement but also the effectiveness of institutional approaches to preparing students for higher education. The competitive nature of university admissions has become particularly pronounced in recent years, with acceptance rates revealing the magnitude of this challenge (Bound et al., 2009). According to official data released by the Education Testing Management Center in 2025, the National Selection Based on Achievement (Seleksi Nasional Berdasarkan Prestasi/SNBP) attracted 776,515 participants, of whom only 173,028 were successful, yielding an acceptance rate of approximately 22.28%. Similarly, the National Selection Based on Tests (Seleksi Nasional Berdasarkan Tes/SNBT) demonstrated comparable selectivity, with 860,976 participants competing for limited positions across academic state universities, Islamic state universities, and vocational state universities, resulting in 253,421 acceptances and a pass rate of 29.43%. These

statistics underscore the highly competitive environment that students must navigate, necessitating comprehensive academic preparation that transcends individual aptitude and requires systematic institutional support (Cook & Turner, 2019).

The imperative for schools extends beyond ensuring student graduation to encompassing the cultivation of robust academic capabilities that enable students to compete effectively at the national level. Academic competitiveness in educational contexts encompasses students' intellectual capacity to excel among peers from diverse institutions, manifested through superior performance, notable achievements, and successful progression to tertiary education (Luhwita & Fianti, 2023). Research demonstrates that student competitiveness positively relates to academic achievement, particularly in competitive educational environments where such attitudes align with broader societal expectations (Park, 2024). Furthermore, Suryadi et al. (2024) emphasize that effective educational management represents a vital element in constructing quality schools through the synergistic integration of key components including human resources, facilities, financial resources, and educational supervision, all of which collectively support an effective learning environment.

Within the broader framework of educational management, curriculum management emerges as a particularly critical element encompassing planning, implementation, evaluation, and continuous development (Cheng, 1994; Alvarado & Galigao, 2024). Setiawan et al. (2022) conceptualize educational management as both a science and an art concerned with optimizing available resources, including human and material assets, to achieve predetermined objectives through planned and systematic approaches. Effective curriculum management serves as the strategic foundation ensuring that every element in the educational process functions optimally to achieve superior educational quality, involving thorough planning, flexible implementation, and continuous evaluation to keep curricula relevant to students' needs and responsive to ongoing social, technological, and economic changes (Govindasamy & Mestry, 2022). As Amyus et al. (2024) assert, curriculum and learning management function as essential components within the educational system, designed to guide and maximize learning processes toward achieving desired educational goals.

Despite the theoretical recognition of curriculum management's importance, empirical evidence suggests that numerous schools encounter difficulties in implementing strategic curriculum management, particularly regarding alignment between curriculum implementation and assessment requirements (Khan et al., 2019; Zhao et al., 2023). A significant challenge lies in the misalignment between curriculum implementation and state university selection requirements, resulting in suboptimal student success rates in gaining admission to desired institutions. Recent research indicates that curriculum misalignment represents a systemic challenge affecting students cognitively, affectively, and structurally, with misalignments between content objectives, cognitive processes, and assessment strategies compromising evaluation quality and hindering the development of critical thinking and problem-solving skills (Anderson & Krathwohl, 2001; Bull, 2025). This discrepancy is particularly evident in the tension between competency-based learning frameworks and assessment-focused preparation strategies. Contemporary curricula emphasize comprehensive competencies including critical thinking, creativity, collaboration, and character development aligned with national educational philosophy, incorporating authentic assessments such as projects, portfolios, and formative evaluations. However, state university selection mechanisms prioritize academic mastery and proficiency in answering standardized examination questions that emphasize higher-order thinking skills (HOTS), creating a fundamental conflict between pedagogical approaches and institutional requirements (Davey et al., 2007; Aydin & Birgili, , 2023).

This problematic dynamic is observable at SMAN 1 Singaparna and SMAN 2 Singaparna, where discernible gaps exist between curriculum implementation and state university admission requirements. Schools find themselves compelled to balance two divergent approaches: competency-oriented learning that emphasizes holistic development and grade-focused preparation that prioritizes cognitive performance in standardized assessments. This tension raises critical questions about curriculum development management and its capacity to enhance students' academic competitiveness while

maintaining educational integrity. Despite growing scholarly attention to curriculum management, limited research has examined how secondary schools specifically adapt curriculum development processes to address the dual imperatives of comprehensive education and competitive examination preparation, particularly within contexts where national selection systems exert significant influence on institutional practices Kuramoto & Koizumi, 2018).

This study addresses this knowledge gap by investigating curriculum development management practices aimed at improving students' academic competitiveness in state university entrance examinations. Specifically, it examines how SMAN 1 Singaparna and SMAN 2 Singaparna navigate the complexities of curriculum management to prepare students for PTN selection while maintaining commitment to holistic educational principles. The research seeks to elucidate the planning, organizing, implementing, and evaluating processes employed by these institutions, identify challenges encountered in curriculum development management, and analyze strategies deployed to overcome obstacles. By providing empirical insights into effective curriculum management practices within competitive educational environments, this study contributes to both theoretical understanding and practical knowledge regarding institutional approaches to enhancing academic competitiveness. The findings hold significance for educational administrators, policymakers, and practitioners seeking to develop responsive curriculum management frameworks that reconcile comprehensive educational objectives with competitive admission requirements, particularly in developing nations where access to quality higher education remains a critical developmental concern.

METHODS

This study employed a qualitative descriptive case study approach to explore curriculum development management aimed at enhancing students' academic competitiveness in state university entrance examinations. Qualitative case study methodology enables comprehensive understanding of complex phenomena within natural contexts through detailed contextual analysis (Baxter & Jack, 2008). As articulated by Sugiyono (2019), qualitative research is particularly suited for exploring natural conditions where the researcher functions as the primary instrument, with findings emphasizing meaning over generalization. This design facilitates examination of "how" and "why" questions regarding curriculum management practices in real educational settings (Yin, 2003).

The research was conducted at SMAN 1 Singaparna and SMAN 2 Singaparna, purposefully selected based on their established reputation for preparing students for state university entrance examinations. Participants comprised key stakeholders including school principals, vice principals responsible for curriculum, subject teachers specializing in UTBK/SNBT-tested areas, and guidance counselors. These participants were selected through purposive sampling based on their direct involvement in curriculum development and student academic preparation.

Data collection employed triangulation techniques to ensure validity and credibility, a widely recognized strategy for cross-verifying information from multiple sources (Carter et al., 2014; Denzin, 1978). Three primary methods were utilized: semi-structured interviews with school leaders, teachers, and counselors to obtain detailed information regarding curriculum management strategies and challenges; systematic observations of learning processes, academic guidance activities, and instructional strategies in classroom settings; and document analysis of curriculum documents, learning schedules, academic achievement programs, and student acceptance data through SNBP and SNBT pathways. This comprehensive approach ensured rich, multi-faceted evidence to address the research objectives.

Data analysis followed the interactive model developed by Miles, Huberman, and Saldaña (2014), involving four interconnected components: data collection, data condensation, data display, and conclusion drawing/verification. Data condensation involved selecting and abstracting relevant information from field notes, interview transcripts, and documents. Data display entailed organizing information into matrices and narrative descriptions that facilitated pattern recognition across data sources. Conclusion drawing occurred iteratively, with preliminary findings continuously tested against

accumulated evidence to ensure validity. This systematic analytical procedure enabled researchers to maintain methodological rigor while preserving contextual richness, ultimately producing findings that authentically represent curriculum development management practices at both research sites.

RESULTS AND DISCUSSION

Results

The findings from this qualitative case study reveal systematic approaches to curriculum development management at both research sites. Data collected through interviews, observations, and document analysis illuminate how SMAN 1 Singaparna and SMAN 2 Singaparna navigate the complex terrain of preparing students for competitive state university entrance examinations while maintaining comprehensive educational objectives. The results are organized thematically to address the research objectives regarding planning, organization, implementation, evaluation, challenges, and strategic responses.

Curriculum Development Planning

Both institutions demonstrated structured, collaborative, and adaptive planning processes responsive to students' academic preparation needs. At the beginning of each academic year, comprehensive curriculum work programs were designed specifically to equip students for SNBP and SNBT pathways. The planning involved multiple stakeholders including principals, vice principals for curriculum, guidance counselors, homeroom teachers, and subject teachers specializing in UTBK/SNBT-tested areas. This inclusive approach ensured that curriculum plans reflected diverse perspectives and addressed multifaceted student needs rather than representing unilateral administrative decisions.

At SMAN 1 Singaparna, the principal emphasized strategic collaboration with universities and tutoring institutions to gather current information about selection requirements. As one administrator stated, "We continuously strive to gather the latest information by collaborating with universities and tutoring institutions. We often invite universities to provide explanations about the state university admission process." This proactive engagement demonstrates institutional commitment to maintaining curriculum relevance with evolving selection patterns. The school conducted needs analyses through guidance counselor assessments beginning in grade X, mapping students' interests, talents, and capabilities to inform strategic decisions about subject selection, learning pathways, and supplementary programs.

SMAN 2 Singaparna implemented similar collaborative planning but with enhanced data-driven decision-making. The planning incorporated analysis of multiple variables including the number of prospective SNBT participants, teacher availability, historical tryout performance, and target study programs. A vice principal explained, "Planning is carried out adaptively, taking into account student diversity. We establish cooperation with universities and tutoring institutions, provide additional programs in the form of in-depth material classes and UTBK guidance, and develop strategies based on needs analysis." This adaptive approach allowed the institution to adjust plans based on emerging patterns in student performance and external policy changes.

An unexpected finding emerged regarding the integration of PTN selection questions into regular learning activities. Rather than treating exam preparation as supplementary to core curriculum, both schools embedded UTBK/SNBT question patterns directly into subject-specific instruction. This integration strategy represents a sophisticated response to curriculum-assessment alignment challenges, suggesting that schools can bridge competency-based and examination-focused approaches through intentional pedagogical design.

Organizational Structures and Role Distribution

The organizational phase translated planning documents into operational structures with clearly delineated responsibilities. At SMAN 1 Singaparna, organization focused on task specialization: main subject teachers (Mathematics, Indonesian Language, English Language) concentrated on SNBT practice questions emphasizing reasoning skills; extracurricular teachers guided students toward

competition participation supporting SNBP portfolios; guidance counselors identified students' interests and potentials; and homeroom teachers monitored academic grades while maintaining parent communication. This division of labor created efficiency by aligning tasks with professional expertise.

SMAN 2 Singaparna demonstrated more integrated organizational structures characterized by regular coordination forums. The principal emphasized systematic meetings where curriculum teams, guidance counselors, and subject teachers clarified respective roles and maintained alignment. A curriculum coordinator noted, "The principal emphasizes the importance of coordination through regular meetings with the curriculum team, guidance counselors, and subject teachers so that each party understands their respective roles." These coordination mechanisms facilitated information exchange and enabled real-time adjustments to implementation strategies.

Both schools established special teams for implementing reinforcement programs. SMAN 2 Singaparna created a dedicated "Bimtap SNBT" team responsible for organizing periodic tryouts and intensive tutoring sessions. This organizational innovation suggests that successful curriculum management requires both differentiated task allocation and specialized implementation units capable of executing focused interventions beyond regular instructional schedules.

Implementation Strategies

Implementation revealed sophisticated pedagogical approaches combining regular instruction with targeted academic reinforcement. At SMAN 1 Singaparna, principals and teachers emphasized learning oriented toward university entrance examinations through strengthening literacy, numeracy, critical thinking, and problem-solving skills. Subject teachers incorporated Higher Order Thinking Skills (HOTS) questions into daily lessons, organized classroom discussions and debates, and facilitated enrichment programs including study clinics and regular tryouts. A mathematics teacher explained, "We don't just focus on achieving the syllabus, but also accustom students to have high-level thinking skills related to university entrance examinations, especially the SNBT."

SMAN 2 Singaparna implemented parallel strategies with additional psychological support components. Beyond academic instruction, the school provided career counseling, individual mentoring, and stress management techniques through guidance counselors. This holistic approach recognized that student success requires both cognitive preparation and psychological resilience. The principal stated, "Learning should not stop at completing the curriculum, but should also develop literacy, numeracy, critical thinking skills, and familiarize students with UTBK-based questions."

An notable implementation pattern involved timing of intensive interventions. Both schools concentrated academic reinforcement after the PSAJ (Penilaian Sumatif Akhir Jenjang), utilizing post-examination periods for focused PTN preparation without compromising regular curriculum coverage. This temporal strategy demonstrates institutional creativity in managing competing curricular demands within constrained time frameworks.

The implementation also revealed teacher agency in adapting curriculum content. Teachers analyzed previous selection question patterns and designed exercise-based learning experiences that simultaneously addressed curriculum competencies and examination preparation. This dual-purpose pedagogy suggests that curriculum-assessment alignment can occur through teacher-level implementation decisions even when systemic tensions exist between curriculum philosophy and selection mechanisms.

Evaluation Processes

Both institutions employed systematic evaluation processes, though with different emphases and scopes. At SMAN 1 Singaparna, evaluation focused primarily on academic metrics. The principal explained, "Tryout results are used to improve the learning process going forward, as tryouts provide an overview of the material covered in class." Periodic evaluation meetings analyzed tryout scores, daily test results, and academic achievements, with subject teachers submitting progress reports and guidance counselors identifying students experiencing learning difficulties. This academic-focused evaluation enabled rapid diagnosis of content gaps and facilitated targeted instructional adjustments.

However, this narrow focus potentially overlooked non-academic factors affecting student performance. A guidance counselor noted instances where students with strong academic records experienced anxiety during actual examinations, suggesting that purely academic evaluations may inadequately capture students' holistic readiness for competitive selection processes.

SMAN 2 Singaparna implemented more comprehensive evaluation frameworks encompassing academic, psychological, and non-academic dimensions. Beyond analyzing test performance, the school systematically assessed students' mental conditions, motivation levels, and extracurricular achievements. Tryout scores underwent detailed analysis through competency mapping and SWOT models, enabling differentiated intervention strategies responsive to individual student profiles. A vice principal stated, "Tryout scores are analyzed through competency mapping and SWOT models, so that improvement strategies can be tailored to student diversity."

This multidimensional evaluation approach facilitated collaborative problem-solving involving subject teachers, guidance counselors, homeroom teachers, and external partners. The evaluation process functioned not merely as assessment but as continuous adaptive mechanism for refining instructional strategies and support services based on evolving student needs.

Challenges and Obstacles

Despite systematic management approaches, both institutions encountered significant implementation challenges. Infrastructure limitations emerged as persistent obstacles. At SMAN 1 Singaparna, the absence of interactive whiteboards in classrooms restricted teachers' ability to access current materials spontaneously, while limited computers prevented optimal computer-based test (CBT) simulations. A teacher commented, "The limited number of computers causes CBT simulations to be suboptimal," necessitating rotational practice schedules that reduced practice effectiveness.

SMAN 2 Singaparna faced similar facility constraints compounded by uneven teacher capacity in implementing HOTS-based learning. The principal acknowledged, "Teachers' abilities in implementing HOTS-based learning are uneven," indicating that pedagogical transformation requires sustained professional development beyond one-time training sessions. This finding aligns with implementation research suggesting that instructional innovation depends heavily on teacher capability and institutional support structures.

Student-related challenges included heterogeneous abilities and motivational levels. Both schools reported significant variation in student preparedness, with some excelling while others struggled with basic competencies. Motivational disparities proved particularly problematic, as intensive academic preparation programs required sustained student commitment. Additionally, insufficient parental support—primarily attributed to economic constraints—limited families' capacity to provide supplementary resources or reinforcement at home.

Temporal constraints emerged as critical structural challenges. The dense national curriculum left minimal flexibility for incorporating PTN-specific preparation within regular schedules. Schools struggled to balance comprehensive competency development mandated by curriculum policy with focused examination preparation demanded by selection mechanisms. A curriculum coordinator explained, "The dense curriculum makes it difficult to find the right additional time for enrichment programs."

An unexpected challenge involved rapidly changing national selection policies. Frequent modifications to SNBP and SNBT formats, weighting criteria, and evaluation standards required continuous curriculum adjustments. This policy instability created planning difficulties and resource allocation challenges, as schools could not implement long-term strategies with confidence in their continued relevance.

Strategic Responses and Innovations

Both institutions demonstrated resourcefulness in addressing implementation challenges through creative problem-solving and strategic partnerships. To overcome infrastructure limitations, schools maximized existing facilities through teacher creativity in utilizing available resources. SMAN 1 Singaparna developed question banks compiled by teacher teams and organized collaborative question-development workshops. These internally generated resources partially compensated for limited commercial materials and technological infrastructure.

Strategic partnerships with external organizations provided critical support. Both schools collaborated with online tutoring platforms (GO, Ruang Guru) providing digital learning resources accessible to students beyond school facilities. These partnerships expanded students' access to practice materials and instructional videos without requiring substantial institutional investment in technological infrastructure. Additionally, annual Edufair events brought university representatives and successful alumni to campuses, providing students with firsthand information about various universities and inspiration from peer success stories.

Professional development initiatives addressed teacher capacity challenges. SMAN 2 Singaparna emphasized teacher participation in training programs, subject teacher working groups (MGMP), and internal discussion forums focused on HOTS implementation and examination question analysis. The principal stated, "Teachers must participate in training, MGMP, or internal discussions" to continually enhance pedagogical capabilities. This commitment to ongoing professional learning suggests recognition that curriculum innovation requires corresponding teacher development.

To address student motivation and parental engagement, schools implemented mentoring programs utilizing successful alumni as role models and motivational speakers. These peer mentoring initiatives provided relatable success narratives that resonated more powerfully with current students than abstract statistics or teacher exhortations. The alumni connection also created networking opportunities potentially beneficial for students' university transitions.

Temporal constraint responses included strategic scheduling innovations. Both schools concentrated intensive PTN preparation during post-PSAJ periods, weekends, and school holidays, creating dedicated preparation time without displacing regular curriculum instruction. Some teachers voluntarily conducted additional sessions outside official schedules, demonstrating professional commitment exceeding formal job requirements.

Discussion

The findings from this study illuminate critical dimensions of curriculum development management in contexts where schools must simultaneously pursue comprehensive educational objectives and prepare students for competitive standardized assessments. The results demonstrate that SMAN 1 Singaparna and SMAN 2 Singaparna have developed systematic, collaborative, and adaptive curriculum management practices despite facing significant structural and resource constraints. This discussion interprets these findings within theoretical frameworks introduced earlier while critically engaging with relevant literature to situate this research within broader scholarly discourse.

The collaborative planning processes observed align closely with contemporary curriculum management principles emphasizing stakeholder engagement and needs-based design. The inclusive planning approach at both schools—involving principals, vice principals, teachers, and counselors—reflects what contemporary literature identifies as essential for effective curriculum development (Ornstein & Hunkins, 2018). This finding corroborates research by Hamalik (2019) arguing that curriculum planning must be grounded in systematic needs analysis and aligned with national educational goals. The explicit integration of student interest mapping beginning in grade X demonstrates practical application of learner-centered curriculum design principles, addressing Sukmadinata's (2017) assertion that curriculum planning must account for individual diversity in interests, talents, and learning styles.

However, this study reveals an additional dimension not fully addressed in existing literature: the strategic integration of assessment preparation directly into curriculum planning rather than treating it

as supplementary activity. This planning innovation suggests a sophisticated institutional response to what Bull (2025) identify as curriculum misalignment between instructional objectives and assessment requirements. By embedding PTN selection question patterns into regular instructional planning, both schools attempted to resolve the tension between competency-based curriculum philosophy and examination-focused selection mechanisms. This finding challenges conventional assumptions that these approaches are necessarily incompatible, suggesting instead that careful planning can create productive integration.

The adaptive and data-driven planning at SMAN 2 Singaparna particularly exemplifies what Govindasamy and Mestry (2022) describe as dynamic curriculum management responsive to evolving contexts. The incorporation of historical performance data, enrollment projections, and resource availability into planning decisions reflects evidence-based decision-making increasingly recognized as essential for educational management effectiveness. This approach aligns with continuous improvement principles emphasized in management literature (Yurkofsky et al., 2020), where systematic data analysis informs iterative refinement of institutional practices.

Notably, the proactive engagement with universities and tutoring institutions to gather current selection requirement information represents a form of environmental scanning rare in secondary school curriculum management literature. This strategic intelligence gathering enables anticipatory rather than reactive curriculum adjustments, suggesting that effective curriculum management in competitive educational contexts requires institutions to function as learning organizations continuously monitoring external environments and adapting internal practices accordingly.

The organizational structures documented in this study demonstrate sophisticated approaches to coordinating diverse institutional actors toward common objectives. The clear role differentiation at SMAN 1 Singaparna—with specialized responsibilities for subject teachers, extracurricular coordinators, guidance counselors, and homeroom teachers—reflects classical organizational management principles emphasizing division of labor and specialization (Cheng, 1994). This structural clarity potentially enhances efficiency by aligning tasks with professional expertise and preventing role ambiguity that could impede implementation.

However, SMAN 2 Singaparna's emphasis on regular coordination forums and integrated team structures suggests that specialization alone proves insufficient for complex curriculum management. The systematic coordination meetings facilitating information exchange and collaborative problem-solving address what implementation research identifies as critical: horizontal coordination mechanisms that enable different organizational units to maintain alignment and mutual adjustment (Yurkofsky et al., 2020). This finding resonates with literature on collaborative curriculum planning emphasizing that effective coordination requires both structural arrangements and cultural practices supporting communication and collective decision-making.

The establishment of specialized implementation teams (e.g., "Bimtap SNBT" team) represents organizational innovation enabling focused execution of supplementary programs. These specialized units function as what organizational theory terms "task forces"—temporary or permanent structures created to address specific challenges requiring concentrated effort and specialized expertise. This organizational strategy suggests that schools successfully managing complex curriculum objectives may require differentiated organizational structures rather than relying solely on existing role configurations.

The implementation strategies revealed in this study demonstrate sophisticated pedagogical approaches attempting to reconcile competing demands. The integration of HOTS questions into daily instruction, emphasis on critical thinking and problem-solving, and use of discussion-based pedagogies align with research on effective higher-order thinking instruction (Paul & Elder, 2007; Miri et al., 2007). These strategies suggest teachers understand that examination preparation and competency development need not be mutually exclusive if instruction consistently engages students in analytical reasoning and application rather than mere fact memorization.

The finding that teachers analyzed previous examination question patterns to design learning experiences represents teacher agency in mediating curriculum-assessment tensions. This adaptive

implementation aligns with research on curriculum enactment showing that effective teachers function as "curriculum makers" who actively interpret and adapt formal curriculum documents based on contextual realities (Priestley et al., 2015). This agency proved particularly important given structural misalignment between competency-based curriculum philosophy and examination-focused selection mechanisms identified in the introduction.

The incorporation of psychological support services at SMAN 2 Singaparna—including stress management, career counseling, and mental health monitoring—reflects emerging recognition that academic competitiveness requires holistic student development. This approach aligns with educational psychology research demonstrating that performance in high-stakes examinations depends not only on cognitive preparation but also on psychological resilience, motivation, and self-efficacy (Zeidner, 2007). The integration of academic and psychological support represents comprehensive implementation addressing both cognitive and affective learning domains.

However, the temporal concentration of intensive preparation after PSAJ, while pragmatically necessary given curriculum density, raises questions about optimal timing for examination preparation. This compressed preparation model may create unnecessary pressure and limit opportunities for sustained skill development. Research on expertise development suggests that distributed practice over extended periods typically produces superior learning outcomes compared to concentrated practice (Rohrer & Taylor, 2007), suggesting potential limitations of the observed implementation pattern.

The evaluation practices documented demonstrate varying degrees of comprehensiveness with important implications for curriculum effectiveness. SMAN 1 Singaparna's academic-focused evaluation reflects traditional assessment approaches emphasizing measurable learning outcomes. While this focus enables clear diagnosis of content mastery gaps, the relatively narrow scope potentially overlooks affective and psychological factors influencing student performance. Research on comprehensive curriculum evaluation emphasizes the importance of multidimensional assessment frameworks capturing cognitive, affective, and behavioral learning domains (Ornstein & Hunkins, 2018; Stufflebeam & Coryn, 2014).

SMAN 2 Singaparna's more comprehensive evaluation framework incorporating academic, psychological, and non-academic dimensions better aligns with contemporary evaluation principles emphasizing holistic assessment. The use of competency mapping and SWOT analysis represents sophisticated diagnostic approaches enabling differentiated intervention strategies responsive to individual student profiles. This multidimensional evaluation exemplifies what Scriven (1967) characterizes as formative evaluation—ongoing assessment intended to improve practice rather than merely judge outcomes. The iterative nature of this evaluation process, with continuous feedback loops informing instructional adjustments, reflects continuous improvement principles increasingly recognized as essential for educational quality enhancement (Yurkofsky et al., 2020).

However, both schools could strengthen documentation systems to better support systematic follow-up on evaluation findings. Research on data-driven decision-making emphasizes that evaluation data prove useful only when translated into actionable insights embedded in institutional practices (Datnow & Park, 2018). More robust documentation of evaluation results, intervention strategies, and outcomes would enable both schools to build institutional memory supporting long-term improvement cycles.

The use of tryout results as primary evaluation data represents pragmatic assessment strategy but raises validity concerns. While tryouts provide valuable practice opportunities and diagnostic information, their predictive validity for actual SNBP/SNBT performance depends on how closely they approximate actual examination conditions and content. Schools should consider validating tryout instruments against actual examination results to ensure diagnostic accuracy.

The challenges documented in this study reflect broader structural issues affecting secondary education in developing contexts. Infrastructure limitations—particularly insufficient technological resources for CBT practice—highlight persistent digital divide issues limiting educational equity (Warschauer, 2004). The necessity for rotational computer access reduces practice effectiveness and

disadvantages students lacking home technology access. This finding underscores arguments that examination format innovations (e.g., computer-based testing) require corresponding infrastructure investments to prevent exacerbating existing inequalities.

The uneven teacher capacity in HOTS implementation illuminates persistent professional development challenges. Despite widespread recognition that 21st-century education requires higher-order thinking skill development, many teachers lack adequate preparation for facilitating such instruction (King et al., 2011). This capacity gap suggests that curriculum policy innovations must be accompanied by sustained, high-quality professional development addressing both content knowledge and pedagogical content knowledge necessary for effective implementation. One-time training sessions prove insufficient for transforming deeply ingrained instructional practices.

The temporal constraints arising from dense national curriculum represent systemic policy tensions requiring attention beyond school-level management. The challenge of simultaneously covering comprehensive curriculum content while preparing students for competitive examinations reflects what Aydin & Birgili (2023) identify as misalignment between curriculum breadth and assessment focus. This tension suggests need for policy-level reconsideration of curriculum scope or examination design to create better alignment. Schools cannot indefinitely resolve through managerial creativity problems fundamentally rooted in conflicting policy demands.

Student heterogeneity in abilities and motivation represents persistent pedagogical challenge requiring differentiated instruction and support. Research on academic motivation emphasizes that sustaining student engagement in intensive examination preparation requires careful attention to autonomy, competence, and relatedness needs (Ryan & Deci, 2000). Schools might benefit from more explicit motivational strategies and differentiated support structures addressing diverse student starting points and learning trajectories.

The unexpected finding regarding rapidly changing selection policies highlights how external policy instability undermines institutional planning effectiveness. This instability creates what organizational theorists term "environmental turbulence," complicating strategic planning and resource allocation (Ansoff, 1975). This finding suggests that education policymakers should consider implementation timelines and provide adequate advance notice of policy changes to enable institutional adaptation.

The strategic responses documented demonstrate remarkable institutional resourcefulness in navigating resource constraints. The development of internal question banks through teacher collaboration exemplifies how schools can leverage existing human capital to partially compensate for limited material resources. This collegial resource development aligns with research on professional learning communities showing that collaborative professional practices can enhance instructional quality and institutional capacity (DuFour, 2004).

Partnerships with online learning platforms represent strategic boundary spanning, accessing external resources to supplement limited internal capacity. This collaboration strategy reflects contemporary emphasis on networked improvement communities where schools leverage external partnerships to access expertise and resources unavailable internally (Bryk et al., 2015). However, heavy reliance on commercial platforms raises sustainability and equity concerns, as students lacking reliable internet access may be disadvantaged.

The alumni mentoring innovation represents creative use of social capital for motivational purposes. Peer modeling through near-peer success stories can provide more relatable and credible motivational messages than abstract statistics or teacher exhortations (Lockwood & Kunda, 1997). This strategy could be systematically expanded, creating structured alumni networks providing ongoing mentoring, information sharing, and social support for current students.

The voluntary teacher engagement in supplementary instruction beyond contractual obligations, while admirable, raises sustainability concerns. Relying on teacher volunteerism for essential program components risks burnout and creates implementation vulnerabilities if key teachers leave or reduce extra commitments. This finding suggests need for institutional recognition, compensation, or load

reduction for teachers assuming additional responsibilities, preventing exploitation of professional dedication.

This study contributes several important theoretical insights. First, it demonstrates that curriculum-assessment misalignment can be partially addressed through strategic integration at planning and implementation stages, challenging assumptions that competency-based curriculum and examination-focused preparation are necessarily incompatible. Second, it illustrates how schools function as adaptive organizations employing various buffering and bridging strategies to manage environmental demands and resource constraints. Third, it shows that effective curriculum management in competitive contexts requires both technical-rational planning (clear objectives, role specification, systematic evaluation) and organic-adaptive capacities (flexibility, collaboration, continuous learning).

Practically, this research offers actionable insights for educational administrators and policymakers. School leaders should prioritize collaborative planning processes involving diverse stakeholders, establish clear organizational structures with regular coordination mechanisms, integrate assessment preparation into regular instruction rather than treating it as supplementary, implement multidimensional evaluation frameworks capturing both academic and non-academic factors, develop strategic partnerships accessing external resources, and create systematic professional development supporting teacher capacity for innovative instruction. Policymakers should consider alignment between curriculum philosophy and assessment mechanisms, provide adequate implementation timelines for policy changes, invest in technological infrastructure supporting contemporary assessment formats, and support sustained professional development rather than one-time training interventions.

This study has several limitations requiring acknowledgment. First, as a qualitative case study of two schools, findings may not generalize to significantly different institutional contexts. Schools with different resource levels, student populations, or leadership characteristics might employ different strategies or encounter different challenges. Second, data collection occurred during a specific time period and may not capture longer-term patterns or seasonal variations in curriculum management practices. Third, while efforts were made to triangulate data sources, reliance on self-reported information through interviews and observations may not fully capture discrepancies between espoused theories and actual practices. Fourth, the study did not track longitudinal student outcomes, limiting ability to assess the actual effectiveness of documented curriculum management practices in improving students' university admission success rates or longer-term academic performance.

This research demonstrates that effective curriculum development management in competitive educational environments requires sophisticated balancing of multiple, sometimes competing demands. Success depends not on choosing between comprehensive education and examination preparation, but on strategic integration addressing both through collaborative planning, coordinated implementation, and continuous evaluation. The documented practices at SMAN 1 Singaparna and SMAN 2 Singaparna illustrate how schools can navigate structural constraints and resource limitations through organizational innovation, strategic partnerships, and teacher agency. These findings contribute to curriculum management theory by showing how institutions adapt to environmental pressures while maintaining educational integrity, and to practice by demonstrating feasible strategies that other schools facing similar challenges might adopt or adapt. Ultimately, this study affirms that curriculum management represents not merely technical administration but dynamic organizational practice requiring strategic thinking, collaborative problem-solving, and sustained commitment to both student competitiveness and holistic development.

CONCLUSION

This study demonstrates that curriculum development management at SMAN 1 Singaparna and SMAN 2 Singaparna operates through systematic processes encompassing collaborative planning, coordinated organization, adaptive implementation, multidimensional evaluation, and strategic problem-solving. Both institutions successfully navigate the complex tension between comprehensive competency-based education and examination-focused preparation by integrating PTN selection

requirements directly into regular curriculum planning and instruction rather than treating them as supplementary activities. This integration strategy represents a significant finding challenging conventional assumptions about the incompatibility of holistic education and competitive examination preparation.

The research contributes theoretically by demonstrating that curriculum-assessment misalignment can be addressed through strategic integration at planning and implementation stages, extending curriculum management theory to competitive educational contexts. Practically, it provides actionable insights for educational administrators regarding collaborative planning processes, multidimensional evaluation frameworks, and strategic partnerships that enhance institutional capacity within resource constraints. The documented practices illustrate how teacher agency and organizational innovation enable schools to function as adaptive learning organizations responsive to environmental demands while maintaining educational integrity.

However, this study's limitations include its focus on two institutions, reliance on self-reported data, and absence of longitudinal outcome tracking, which constrain generalizability. Future research should examine long-term effectiveness of documented curriculum management practices on students' university admission success and subsequent academic performance, investigate comparative approaches across diverse institutional contexts with varying resource levels, and explore the sustainability of voluntary teacher engagement in supplementary programs. Additionally, research examining policy-level interventions addressing systemic curriculum-assessment misalignment would provide valuable insights for educational reform. Ultimately, effective curriculum management in competitive environments requires balancing technical-rational planning with organic-adaptive capabilities, collaborative engagement of diverse stakeholders, and sustained commitment to both academic competitiveness and holistic student development.

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