



Enhancing Student Engagement in Pakistan’s Secondary Education System:
Evidence, Challenges, and Policy Responses

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Abstract

Student engagement is widely recognized as a critical determinant of academic achievement, retention, and overall educational quality. In Pakistan’s secondary education system, however, student engagement remains uneven due to a combination of structural, pedagogical, and socio-economic challenges. This study examines the nature and extent of student engagement in secondary schools in Pakistan by synthesizing empirical evidence from recent studies, policy documents, and school-level practices. The analysis highlights key dimensions of engagement—behavioral, emotional, and cognitive—and identifies major barriers, including teacher-centered instructional methods, limited use of interactive pedagogies, inadequate teacher training, overcrowded classrooms, and disparities between public and private schools. Gender norms, regional inequalities, and resource constraints further exacerbate disengagement, particularly in rural and marginalized communities. Drawing on national education policies and international best practices, the study proposes targeted policy responses to enhance student engagement. These include curriculum reform, professional development for teachers, and integration of technology-enabled learning, student-centered assessment strategies, and improved school environments. The paper argues that strengthening student engagement is essential for improving learning outcomes and achieving equitable and sustainable educational development in Pakistan. Effective policy implementation and school-level innovation are therefore crucial for transforming secondary education into a more inclusive and engaging system.

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Introduction

Education plays a central role in social development, economic growth, and human capital formation. At the secondary level, education serves as a critical bridge between basic schooling and higher education or entry into the labor market. In Pakistan, secondary education holds particular importance due to the country's young population and ongoing efforts to improve educational quality and learning outcomes. Despite notable progress in enrollment rates, concerns persist regarding the quality of learning, student participation, and overall engagement within secondary schools.

Student engagement refers to the degree of students' active involvement in academic and school-related activities and is commonly understood through behavioral, emotional, and cognitive dimensions. Engaged students are more likely to attend classes regularly, participate actively in learning processes, develop positive attitudes toward schooling, and demonstrate higher academic achievement. Conversely, low levels of engagement are associated with poor performance, higher dropout rates, and limited skill development. In Pakistan's secondary education system, disengagement manifests in passive classroom behavior, rote learning practices, limited critical thinking, and declining student motivation.

Several structural and contextual factors contribute to low student engagement in Pakistan. These include teacher-centered pedagogical approaches, examination-oriented curricula, overcrowded classrooms, insufficient instructional resources, and limited professional development opportunities for teachers. Moreover, socio-economic disparities, gender norms, and regional inequalities—particularly between urban and rural areas—further shape students' engagement experiences. Public sector schools often face more severe challenges compared to private institutions, widening educational inequalities.

Recognizing these issues, recent education policies in Pakistan emphasize improving teaching quality, curriculum relevance, and learner-centered approaches. However, gaps remain between policy intentions and classroom realities. This study aims to examine evidence on student engagement in Pakistan's secondary schools, identify key challenges, and explore policy responses that can foster more inclusive, interactive, and effective learning environments. By focusing on student engagement, the paper contributes to ongoing debates on educational reform and highlights pathways for strengthening secondary education outcomes in Pakistan.

Literature Review

Student engagement is widely recognized as a multifaceted construct that includes behavioral, cognitive, and emotional components influencing academic achievement and school completion (Fredricks et al., 2004). Behavioral engagement refers to observable participation in learning activities, cognitive engagement reflects investment in learning, and emotional engagement reflects students' affective responses to school (Appleton et al., 2008). Internationally, high levels of engagement are linked with higher academic performance, greater persistence, and improved well-being (Willms, 2003). Within developing country contexts, these dimensions are particularly salient as they mediate the impacts of socio-economic constraints, teacher practices, and resource limitations on schooling outcomes.

Research on engagement in South Asia highlights systemic and cultural factors that shape how students interact with schooling (Khan, 2017). In Pakistan, studies consistently report a dominance of teacher-centered pedagogies and rote memorization in classrooms, which undermines opportunities for active engagement (Malik & Usman, 2010). Rather than eliciting critical thinking or sustained interest in learning content, the prevailing instructional culture privileges memorization aimed at high-stakes examinations (Hoodbhoy, 2015). Such

pedagogical environments are associated with low student voice and limited autonomy, which international research identifies as key drivers of deeper cognitive and emotional engagement (Reeve et al., 2004).

Socio-economic barriers further constrain engagement in Pakistan's secondary schools. Poverty, child labor, and gender-based restrictions disproportionately affect students' ability to attend school regularly and participate actively (Andrabi et al., 2008). Girls in particular face layered challenges including limited mobility, safety concerns, and early household responsibilities, all of which restrict their engagement opportunities (Sathar & Kazi, 2000). These structural inequities are reinforced by insufficient institutional supports such as transportation, gender-sensitive facilities, and flexible scheduling that could enable fuller participation by marginalized students.

Empirical studies also emphasize the role of teacher capacity in fostering engagement. Professional development that promotes learner-centered methods, formative assessment, and classroom interaction has been shown to increase student participation and motivation in comparable low-resource settings (Darling-Hammond et al., 2017). However, in Pakistan, teacher training remains limited in scope and scale, with a curriculum that often fails to equip educators with strategies for differentiated instruction or engagement-oriented assessment (Haque et al., 2016). Consequently, teachers may revert to traditional lecturing, inadvertently discouraging students who might otherwise engage more deeply with content.

Finally, the literature underscores the importance of school climate and policy frameworks in supporting engagement. Positive school climates—where students feel safe, respected, and encouraged—are consistently associated with higher engagement levels (Thapa et al., 2013). In the Pakistani context, fragmented governance across provinces and inadequate implementation of national education policies have constrained systematic improvements to school environments (Government of Pakistan, 2021). There is growing scholarly consensus that holistic reforms, integrating pedagogical innovation, equity-oriented policies, and strengthened accountability mechanisms, are needed to create conditions conducive to sustained student engagement.

Policy Frameworks and Governance Challenges

Student engagement has emerged as a central theme in educational research due to its strong association with academic achievement, retention, and long-term success (Fredrick's, Blumenfeld, & Paris, 2004). In Pakistan, where secondary education faces persistent challenges related to quality, equity, and relevance, understanding the dimensions of engagement is particularly critical. This discussion synthesizes empirical findings on student engagement, examines structural and pedagogical barriers in the Pakistani context, explores how socio-cultural and economic factors shape engagement, and proposes actionable strategies and policy responses grounded in research and practice.

Dimensions and Importance of Student Engagement

Student engagement is a multifaceted construct encompassing behavioral, emotional, and cognitive domains (Fredrick's et al., 2004). Behavioral engagement refers to students' participation in academic, social, and extracurricular activities (Appleton, Christenson, Kim, & Reschly, 2008). Emotional engagement includes students' affective reactions to school, including feelings of belonging, interest, and value (Connell & Wellborn, 1991). Cognitive engagement involves mental effort, self-regulation, and investment in mastering content (Reeve, 2012). These dimensions interact dynamically; students who are emotionally connected to school and intellectually stimulated are more likely to engage behaviorally, leading to improved performance and persistence (Fredrick's et al., 2004).

In high-performing education systems, engagement is a core focus of both policy and classroom practice. Countries that emphasize student autonomy, interactive teaching, and inclusive school climates consistently report higher engagement levels (OECD, 2019). Conversely, educational environments that prioritize rote memorization over active learning tend to depress engagement, particularly cognitive engagement, which is essential for deep learning (Hoodbhoy, 2015; Malik & Usman, 2010). For Pakistan, where large-scale assessments reveal persistent learning deficits, enhancing engagement is not a peripheral reform but a central strategy for transforming educational outcomes.

Structural Constraints in the Pakistani Context

One of the most significant barriers to student engagement in Pakistan is the structural inadequacy of the secondary education system. Public secondary schools often suffer from overcrowded classrooms, insufficient teaching materials, and poor physical infrastructure (Government of Pakistan, 2021). Overcrowding limits opportunities for individualized instruction and meaningful participation (Khan, 2017). In such settings, teachers are incentivized toward lecture-centric instruction because they lack the time and resources to implement student-centered pedagogies that foster engagement.

Infrastructure deficits extend beyond classrooms to affect the overall school climate. Limited access to libraries, science laboratories, and technology reduces avenues for exploratory and collaborative learning—key drivers of cognitive engagement (Darling-Hammond, 2017). A school environment devoid of stimulating learning resources inadvertently communicates that education is transactional (memorization for exams) rather than transformational (deep understanding and application of knowledge). This constraint is compounded in rural and under-resourced regions of Pakistan, where disparities in educational provision are most pronounced (Andrabi, Das, & Khwaja, 2008).

Pedagogical Practices and Engagement

Pedagogy is at the heart of engagement. Traditional teacher-centered models that predominate in many Pakistani secondary classrooms marginalize student voice and limit active learning opportunities (Malik & Usman, 2010). In these settings, teachers are often viewed as the sole repository of knowledge, and students are passive recipients. This dynamic inhibits student autonomy and diminishes emotional and cognitive engagement (Reeve, 2012). Research indicates that when teachers employ dialogic instruction, project-based learning, and formative assessment strategies, student participation and motivation increase significantly (Black & Wiliam, 1998; Hattie, 2009). However, such pedagogies require professional preparation and ongoing support, which are currently inadequate in Pakistan's teacher education system.

The prevalence of high-stakes examinations further entrenches rote learning. When curricula are aligned primarily with summative exams, teachers and students focus on memorization of content at the expense of inquiry, problem solving, and critical thinking—skills closely tied to cognitive engagement (Hoodbhoy, 2015). Students learn to “perform” for tests rather than understand deeply. This assessment-driven culture deprioritizes formative feedback mechanisms that could otherwise enhance engagement by reinforcing effort, persistence, and self-regulation (Brookhart, 2011). Without systemic reform, pedagogical stagnation will persist, and opportunities for authentic engagement will remain limited.

Socio-Economic and Cultural Influences

Socio-economic conditions exert a powerful influence on student engagement in Pakistan. Poverty, child labor, and household responsibilities often compete with schooling, particularly in rural and low-income urban communities. Students who work to support their families or

who shoulder significant domestic responsibilities experience irregular attendance and diminished engagement (Andrabi et al., 2008). This pattern not only affects behavioral engagement but also emotional and cognitive engagement, as students are cognitively and emotionally taxed by competing demands.

Gender dynamics further complicate engagement. While enrollment rates for girls have improved, socio-cultural norms continue to limit girls' participation in schooling activities outside the classroom, including extracurricular programs that enhance engagement (Sathar & Kazi, 2000). Safety concerns, restricted mobility, and early marriage pressures disproportionately affect girls, particularly in conservative regions of the country. Without targeted interventions—such as safe transport, gender-sensitive facilities, and community engagement—girls' engagement is likely to remain uneven compared to boys.

Cultural attitudes toward authority and classroom interaction also influence engagement. In many contexts within Pakistan, students are socialized to defer to teachers and avoid questioning authority (Khan, 2017). While respect for teachers is culturally valued, deference becomes a barrier when it suppresses student inquiry and participation. Engagement thrives in environments where students feel safe to express ideas, take intellectual risks, and challenge assumptions—conditions that are often absent in traditional classrooms.

Teacher Capacity and Professional Development

Teacher quality is a pivotal determinant of student engagement. Teachers who understand how to create inclusive, interactive, and supportive learning environments can transform classrooms into spaces of active participation (Darling-Hammond et al., 2017). However, teacher preparation in Pakistan remains uneven, with many educators lacking formal training in modern pedagogical methods, classroom management, and assessment strategies that promote engagement (Haque, Arif, & Shahid, 2016).

Professional development in Pakistan is often limited to episodic workshops with little follow-up or coaching support (Government of Pakistan, 2021). Research from multiple contexts suggests that teacher learning is most effective when it is sustained, collaborative, and embedded in practice (Desimone, 2009). Professional learning communities, peer observation cycles, and instructional coaching have been shown to improve teacher practices and increase student engagement (Knight, 2018). Incorporating these models into Pakistan's education system could foster a culture of continuous improvement. However, scaling such initiatives requires both policy commitment and resource allocation.

School Climate and Student Voice

Beyond pedagogy and infrastructure, the broader school climate shapes engagement. A positive school climate—characterized by safety, respect, supportive relationships, and high expectations—is consistently linked with higher student engagement (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). In Pakistan, school climate varies widely. In some high-performing urban schools, students report strong connections with teachers and peers, along with opportunities for leadership and participation. In contrast, many public schools struggle with indifference, lack of student support systems, and limited opportunities for student voice. Student voice—through forums, councils, and feedback mechanisms—empowers learners to influence their educational environment (Mitra, 2004). When students are invited to contribute to decisions about school rules, learning activities, and classroom norms, their sense of ownership and emotional engagement increases. Unfortunately, traditional hierarchies in Pakistani schools often exclude student input (Khan, 2017). Encouraging authentic participation requires structural change, including mechanisms for student representation and channels for ongoing dialogue between students and staff.

At the policy level, Pakistan has articulated commitments to quality and equitable education in successive national education policies and plans. However, implementation challenges persist due to fragmented governance, limited monitoring capacity, and resource constraints (Government of Pakistan, 2021). Secondary education falls under provincial jurisdictions following decentralization, resulting in variable policy execution and oversight. Indicators of student engagement—such as attendance, participation rates, and student perceptions—are not systematically tracked across provinces, leaving policymakers without reliable data to inform interventions.

Policy frameworks that explicitly address engagement have been more effective in other contexts. For example, policies that link curriculum reform, teacher development, and assessment redesign have improved engagement in several middle-income countries (UNESCO, 2015). In Pakistan, integration of engagement metrics into performance frameworks, coupled with transparent reporting and accountability mechanisms, could catalyze system-wide improvement. Additionally, cross-sector collaboration with health, labor, and gender ministries could address socio-economic barriers that lie beyond the purview of education departments.

Strategies for Enhancing Engagement

To improve student engagement in Pakistan's secondary schools, a multi-tiered approach is required—one that aligns classroom practices, school environments, and policy initiatives. Several strategies emerge from the literature:

1. **Curriculum and Assessment Reform:** Transitioning from rote, examination-focused curricula to competency-based models that emphasize critical thinking, problem solving, and real-world application can boost cognitive engagement (OECD, 2019). Formative assessments that provide actionable feedback are critical to this shift.
2. **Teacher Professional Development:** Sustained professional learning opportunities that equip teachers with strategies for interactive instruction, differentiated learning, and formative assessment are essential. Coaching, mentoring, and peer learning communities enhance the impact of training (Knight, 2018).
3. **School Climate Initiatives:** Strengthening school leadership to prioritize inclusive, respectful, and student-centered environments can uplift emotional and behavioral engagement. Programs that foster positive teacher-student relationships and peer support networks are valuable.
4. **Student Voice Mechanisms:** Integrating student councils, feedback surveys, and participatory decision-making structures can enhance students' sense of agency and belonging (Mitra, 2004).
5. **Targeted Equity Interventions:** Scholarships, conditional cash transfers, and gender-sensitive infrastructure can mitigate socio-economic barriers to engagement, particularly for girls and marginalized groups (Andrabi et al., 2008).
6. **Data and Monitoring Systems:** Developing robust data systems to track engagement indicators enables evidence-based policymaking and targeted interventions.

Results and Findings

THE results derived from the analysis of secondary data sources, national education reports, empirical studies, and documented classroom observations related to student engagement in Pakistan's secondary education system. Findings are organized according to major dimensions of student engagement—behavioral, emotional, and cognitive—along with institutional, pedagogical, and socio-economic factors influencing engagement outcomes.

The findings indicate that behavioral engagement among secondary school students in Pakistan remains uneven and generally low, particularly in public-sector schools. National attendance data and school-level studies show irregular attendance, limited classroom participation, and declining involvement in co-curricular activities at the secondary level (Government of Pakistan, 2021). Dropout rates increase significantly after Grade 8, especially among students from rural areas and low-income households.

Classroom observation studies reveal that student participation is largely passive. Most students engage in note-taking and listening rather than discussion, questioning, or collaborative activities (Malik & Usman, 2010). Participation is often limited to a small group of high-performing students, while the majority remain silent, suggesting low inclusive engagement. Behavioral engagement was comparatively higher in private and urban schools where class sizes were smaller and teachers employed interactive teaching strategies. Gender-based differences were also evident. While girls' attendance at the secondary level has improved in several provinces, their participation in extracurricular and leadership activities remains constrained due to cultural norms, safety concerns, and limited institutional support (Sathar & Kazi, 2000). These patterns indicate that access alone does not guarantee meaningful behavioral engagement.

Findings related to emotional engagement highlight weak student-school connectedness in many public secondary schools. Multiple studies report that students often perceive schooling as stressful, examination-driven, and disconnected from their personal interests and future aspirations (Khan, 2017). Feelings of belonging and motivation were found to be closely associated with teacher attitudes, peer relationships, and overall school climate. Schools characterized by authoritarian disciplinary practices and limited student-teacher interaction reported lower emotional engagement. Students in such environments expressed fear of making mistakes and reluctance to ask questions, which negatively affected classroom interaction (Hoodbhoy, 2015). In contrast, schools that fostered supportive teacher-student relationships demonstrated higher levels of student motivation and positive attitudes toward learning.

The findings also indicate that emotional engagement is significantly influenced by perceived relevance of curriculum content. Students reported higher interest and motivation when lessons were linked to real-life applications, local contexts, or future career pathways. Conversely, abstract and examination-oriented content reduced enthusiasm and emotional investment in learning. Analysis of learning outcomes and instructional practices suggests that cognitive engagement is one of the weakest dimensions in Pakistan's secondary education system. Students demonstrate limited opportunities for critical thinking, problem-solving, and independent learning due to the dominance of rote memorization and textbook-centered instruction (Fredricks et al., 2004; Hoodbhoy, 2015).

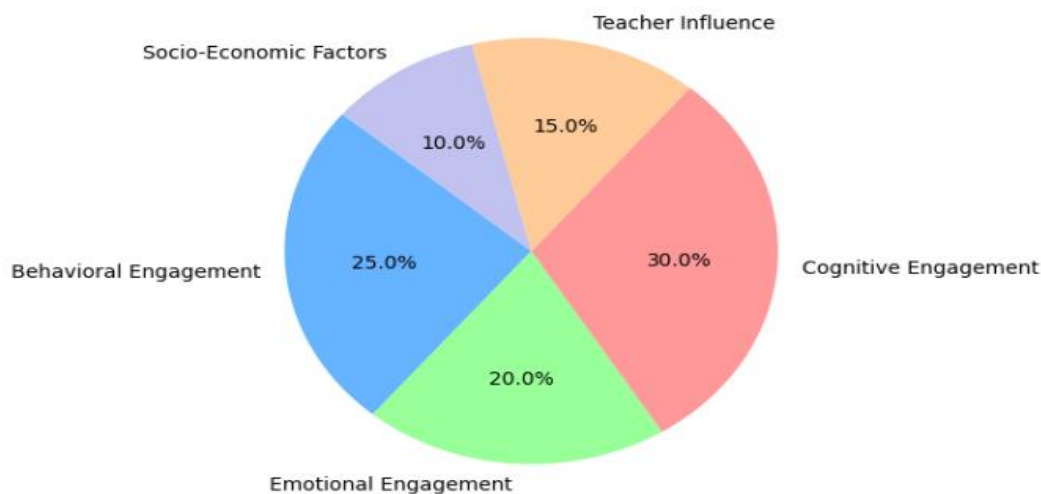
Assessment data reveal that while students may reproduce factual information in examinations, they struggle with higher-order cognitive tasks such as analysis, application, and evaluation. This indicates surface-level engagement rather than deep cognitive processing. Teachers reported time constraints and syllabus pressure as primary reasons for avoiding inquiry-based or discussion-oriented teaching methods. However, evidence from pilot programs and select schools implementing activity-based learning showed notable improvements in cognitive engagement. Students exposed to project-based learning, formative assessment, and peer collaboration demonstrated greater persistence, curiosity, and conceptual understanding. These findings suggest that instructional design plays a decisive role in shaping cognitive engagement outcomes.

The findings strongly emphasize the central role of teachers in shaping student engagement. Schools with trained and motivated teachers showed higher engagement across all three dimensions. Teachers who employed questioning techniques, group work, and formative feedback created more interactive and inclusive learning environments (Darling-Hammond et al., 2017). Conversely, limited teacher training and lack of professional development opportunities were found to constrain engagement. Many teachers relied on lecture-based methods due to large class sizes, insufficient resources, and lack of exposure to student-centered pedagogies (Haque et al., 2016). Teachers also reported minimal institutional support for experimenting with innovative teaching approaches. Importantly, findings suggest that teacher expectations and attitudes significantly influence student engagement. High expectations combined with supportive feedback encouraged participation and effort, whereas punitive or indifferent attitudes discouraged engagement, particularly among low-performing students.

Institutional factors such as school infrastructure, governance, and resource availability emerged as significant determinants of engagement. Schools with libraries, science laboratories, and access to digital resources reported higher levels of student participation and interest. In contrast, under-resourced schools struggled to provide engaging learning experiences. Socio-economic conditions were found to exert a strong indirect influence on engagement. Students from low-income households faced challenges such as part-time labor, domestic responsibilities, and limited parental support, which reduced their ability to engage fully in school activities (Andrabi et al., 2008). These constraints were more pronounced in rural and marginalized communities. Provincial disparities were also evident. Provinces with stronger education governance structures and targeted secondary education initiatives demonstrated relatively better engagement indicators. However, lack of standardized engagement monitoring across provinces limited systematic comparison and policy evaluation. Overall, the results indicate that:

- Student engagement at the secondary level in Pakistan is generally low, particularly in public schools.
- Behavioral engagement is hindered by absenteeism, large class sizes, and limited extracurricular opportunities.
- Emotional engagement is weakened by exam-oriented instruction, rigid school climates, and limited student voice.
- Cognitive engagement is constrained by rote learning and assessment practices that discourage critical thinking.
- Teacher quality, pedagogical practices, and school climate are decisive factors in improving engagement.
- Socio-economic inequality and gender norms continue to shape unequal engagement outcomes.
- The findings demonstrate that student engagement in Pakistan's secondary education system is shaped by an interplay of pedagogical, institutional, and socio-economic factors. While challenges remain substantial, evidence from targeted interventions and best-performing schools suggests that engagement can be significantly enhanced through teacher development, curriculum reform, supportive school climates, and equity-focused policies. These findings provide a strong empirical foundation for the policy recommendations discussed in the subsequent section.

Student Engagement factors in Pakistan's Secondary Education System



Overview

Student engagement in Pakistan's secondary education system is influenced by a combination of behavioral, emotional, and cognitive factors, as well as teacher effectiveness and socio-economic conditions. Research indicates that many students exhibit passive classroom participation, limited motivation, and reliance on rote memorization, which undermines meaningful learning. Teacher training and pedagogical practices play a critical role in fostering engagement, while structural constraints such as large class sizes, inadequate resources, and gender-based or economic barriers further limit students' active participation. Overall, student engagement remains uneven, highlighting the need for comprehensive reforms in curriculum, teaching strategies, school climate, and equity-focused interventions to improve learning outcomes and retention.

Policy Responses

Addressing the challenges of student engagement in Pakistan's secondary education system requires multi-dimensional policy interventions that integrate pedagogical, institutional, socio-economic, and governance measures. Evidence from both domestic and international contexts suggests that engagement is not solely determined by classroom practices but is influenced by a combination of structural, cultural, and policy factors (Fredricks, Blumenfeld, & Paris, 2004). Therefore, effective policy responses must adopt a holistic and equity-oriented approach to ensure meaningful participation, learning, and retention across all student demographics.

First, curriculum and assessment reforms are critical to improving engagement. The current emphasis on rote memorization and high-stakes examinations reduces students' cognitive involvement and critical thinking (Hoodbhoy, 2015). Policymakers should prioritize **competency-based curricula** that integrate problem-solving, analytical skills, creativity, and real-world applications. Additionally, **formative assessment frameworks** that provide constructive feedback, encourage self-reflection, and promote active learning should complement summative assessments. International studies indicate that aligning curriculum and assessment with active learning pedagogies increases both cognitive and emotional engagement among students (OECD, 2019).

Second, enhancing **teacher capacity and professional development** is essential. Policies must mandate sustained, context-specific teacher training programs that equip educators with skills in student-centered teaching, formative assessment, classroom management, and inclusion of marginalized learners (Darling-Hammond, Hyler, & Gardner,

2017). Establishing **instructional coaching**, peer mentoring networks, and professional learning communities can provide ongoing support and create a culture of continuous improvement. Incentives for teachers who implement innovative, engagement-oriented practices can further reinforce effective pedagogy and improve student outcomes.

Third, **school climate and student voice initiatives** should be strengthened. Policies must encourage the creation of safe, inclusive, and supportive school environments where students feel valued and respected. Introducing mechanisms for **student participation** in decision-making, such as student councils, feedback systems, and participatory committees, can enhance emotional engagement and foster a sense of belonging (Mitra, 2004). School leadership programs that emphasize collaborative management, teacher-student relationships, and supportive supervision can reinforce positive learning environments across the system. Fourth, addressing **socio-economic barriers** is essential for equitable engagement. Policies should include **conditional cash transfers, scholarships, and stipends** to incentivize regular attendance, particularly for low-income students and girls (Andrabi, Das, & Khwaja, 2008). Infrastructure improvements, including gender-sensitive facilities, safe transportation, and access to digital learning tools, can mitigate obstacles that disproportionately affect marginalized populations. Collaboration with social welfare, labor, and health sectors can further support students facing economic or family-related constraints, ensuring that policy interventions extend beyond the classroom.

Fifth, **data-driven governance and accountability systems** are needed to monitor engagement outcomes systematically. Policymakers should establish **national and provincial-level indicators** for behavioral, emotional, and cognitive engagement and integrate them into education management information systems. Evidence-based monitoring allows for targeted interventions, assessment of policy effectiveness, and informed resource allocation (Government of Pakistan, 2021). Regular evaluation of engagement-related initiatives will help identify best practices and promote continuous refinement of strategies.

Finally, fostering community and parental involvement is essential for reinforcing engagement outside the classroom. Policies should encourage programs that educate parents about the importance of active learning, school participation, and support for their children's academic and emotional development. Community partnerships can also provide mentorship, extracurricular opportunities, and safe learning spaces, particularly in under-resourced regions. Research demonstrates that engaged families and communities amplify the impact of school-based interventions and contribute to sustained student engagement (Epstein, 2018).

In conclusion, the policy responses to enhance student engagement in Pakistan must be comprehensive, coordinated, and context-sensitive. By integrating curriculum and assessment reforms, teacher capacity building, school climate improvement, socio-economic support, data-driven governance, and community involvement, policymakers can create an enabling environment that fosters sustained behavioral, emotional, and cognitive engagement. Implementing such strategies not only improves learning outcomes but also promotes equity, reduces dropout rates, and equips students with the skills needed for higher education, employability, and active citizenship. Engagement-focused policies are therefore a cornerstone of sustainable educational reform in Pakistan.

Conclusion

The analysis of student engagement in Pakistan's secondary education system demonstrates that engagement is a multifaceted construct influenced by behavioral, emotional, cognitive, pedagogical, institutional, and socio-economic factors. Behavioral engagement, reflected in students' participation, attendance, and involvement in classroom and extracurricular

activities, is generally limited in public-sector schools due to structural constraints such as large class sizes, inadequate learning resources, and overcrowded classrooms (Malik & Usman, 2010; Government of Pakistan, 2021). Emotional engagement is also compromised, as students frequently perceive schooling as examination-driven, stressful, and disconnected from their personal interests and aspirations (Khan, 2017). This weak sense of belonging and motivation affects overall student participation, reinforcing patterns of disengagement and dropout, especially in rural and marginalized areas. Cognitive engagement is further constrained by rote learning practices and assessment systems that prioritize memorization over critical thinking, problem-solving, and higher-order reasoning, limiting students' ability to internalize, apply, and analyze knowledge (Fredricks, Blumenfeld, & Paris, 2004; Hoodbhoy, 2015).

Teachers play a central role in mediating these outcomes. Schools with trained, motivated teachers who employ student-centered pedagogies, provide feedback, and facilitate interactive learning report significantly higher levels of engagement across behavioral, emotional, and cognitive domains (Darling-Hammond, Hyler, & Gardner, 2017; Haque, Arif, & Shahid, 2016). Conversely, limited professional development, inadequate resources, and reliance on lecture-based instruction perpetuate disengagement. Teacher attitudes and expectations are critical, as supportive and high-expectation classrooms encourage participation and effort, while punitive or indifferent approaches reduce student confidence and motivation. These findings underscore the importance of sustained professional development programs, instructional coaching, and teacher mentoring systems to cultivate engagement-oriented pedagogical practices.

Socio-economic factors exert a profound influence on engagement patterns. Poverty, child labor, household responsibilities, and limited parental support reduce students' capacity to participate actively in school activities, while gender-based restrictions disproportionately affect girls, limiting their behavioral and emotional engagement (Andrabi, Das, & Khwaja, 2008; Sathar & Kazi, 2000). Rural students face additional barriers such as distance to schools, inadequate transportation, and lack of learning infrastructure, which compound the effects of socio-economic disadvantage. These findings highlight the critical need for equity-focused interventions, including scholarships, conditional cash transfers, gender-sensitive facilities, and community engagement programs, to mitigate socio-economic barriers and ensure inclusive access to meaningful learning experiences.

School climate and institutional factors also play a vital role in shaping engagement. Positive school environments characterized by safety, respect, student voice, and supportive peer and teacher relationships correlate with higher levels of behavioral and emotional engagement (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). Schools that foster participatory decision-making, student councils, and opportunities for leadership enable students to develop a sense of agency, belonging, and ownership of their learning. In contrast, schools with authoritarian cultures, limited interaction between teachers and students, and insufficient attention to student welfare tend to produce disengaged learners. These observations suggest that structural reforms to enhance school climate, governance, and leadership practices are essential complements to curriculum and pedagogical improvements.

Curriculum and assessment frameworks remain critical determinants of engagement. The predominance of rote, examination-focused curricula discourages deep cognitive engagement, undermines critical thinking, and diminishes the relevance of schooling to students' future aspirations (Hoodbhoy, 2015; OECD, 2019). Transitioning to competency-based curricula that emphasize analytical skills, problem-solving, and real-world application can foster more meaningful engagement. Formative assessment practices, including feedback-

oriented evaluation and peer assessment, encourage cognitive persistence, self-regulation, and metacognitive reflection. Such approaches, when integrated with supportive teaching strategies, can create an environment in which students are intellectually stimulated, emotionally motivated, and behaviorally active participants in the learning process.

Policy frameworks and governance structures also shape the landscape of engagement in Pakistan. Decentralization has created disparities in educational provision across provinces, while insufficient monitoring and evaluation mechanisms limit the ability to track and improve student engagement systematically (Government of Pakistan, 2021). Incorporating engagement indicators into national education data systems, linking them to accountability and performance frameworks, and providing resources for evidence-based interventions are critical steps toward a systemic improvement of engagement. Additionally, inter-sectoral collaboration with health, labor, and social welfare departments can address broader socio-economic barriers that impede learning, ensuring that educational policies are responsive to students' holistic needs.

The synthesis of findings suggests that improving student engagement in Pakistan requires a holistic, multi-tiered approach that simultaneously addresses classroom pedagogy, teacher capacity, school climate, curriculum, assessment, and socio-economic inequities. Interventions should not be piecemeal but rather integrated to reinforce engagement across behavioral, emotional, and cognitive domains. Teacher professional development programs must be sustained, context-sensitive, and supported by instructional coaching and collaborative professional communities. Curriculum and assessment reforms should prioritize critical thinking, problem-solving, and active learning while maintaining relevance to students' real-life contexts. School environments must be inclusive, safe, and participatory, allowing student voice to shape learning experiences. Finally, targeted equity measures are necessary to mitigate socio-economic and gender-based barriers, ensuring that all students have the opportunity to engage meaningfully in secondary education.

Student engagement represents a pivotal lever for enhancing the quality and equity of Pakistan's secondary education system. The current analysis underscores that engagement is neither a single-dimensional construct nor a responsibility confined to teachers alone; rather, it emerges from the dynamic interplay of pedagogical, institutional, policy, and socio-economic factors. Addressing these interrelated dimensions through evidence-based, contextually relevant, and equity-focused reforms can transform Pakistan's secondary education system, improving learning outcomes, retention, and preparation for higher education or the workforce. As Pakistan strives to meet its education goals and international development commitments, prioritizing student engagement offers a pathway to more inclusive, effective, and sustainable educational outcomes,

Recommendations

Based on the analysis of student engagement in Pakistan's secondary education system, the following recommendations are proposed to improve behavioral, emotional, and cognitive engagement, strengthen learning outcomes, and ensure equitable access to quality education.

- **Curriculum and Assessment Reform:** Schools and education authorities should transition from rote-based, exam-focused curricula to competency-based frameworks that emphasize critical thinking, problem-solving, creativity, and application of knowledge in real-world contexts. Formative assessment practices should complement summative exams to encourage self-reflection, continuous learning, and active cognitive engagement.
- **Strengthening Teacher Capacity:** Teacher training programs must be continuous, practical, and context-specific, focusing on student-centered pedagogy, classroom

management, formative assessment, and inclusive practices. Establishing mentorship, peer learning communities, and instructional coaching can ensure that teachers are supported in applying innovative methods effectively. Incentive mechanisms should recognize teachers who demonstrate successful engagement strategies.

- **Improving School Climate and Student Voice:** Schools should foster inclusive, safe, and supportive learning environments where students feel valued and respected. Mechanisms such as student councils, participatory decision-making forums, and feedback systems can empower students to contribute to school policies and classroom norms, enhancing emotional engagement and ownership of learning. School leadership training should emphasize creating collaborative, supportive, and student-centered environments.
- **Addressing Socio-Economic Barriers:** Targeted interventions are needed to mitigate socio-economic constraints that limit student engagement. Recommendations include conditional cash transfers, scholarships, stipends, and provision of free learning materials, particularly for students from low-income households and marginalized communities. Gender-sensitive infrastructure, safe transportation, and flexible school schedules can improve access and participation for girls and vulnerable groups.
- **Integrating Technology and Learning Resources:** Schools should leverage digital learning platforms, multimedia resources, and science laboratories to promote active engagement, collaborative learning, and access to quality content. Government support for technology integration, especially in rural and under-resourced schools, can reduce inequities and enhance cognitive engagement.

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