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Beyond Marks: Understanding Impacts of High-Stakes Exams (Board Exams) on Grade XII students' Academic Outcomes

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Abstract: Each year, around 8,000 Grade XII students in Bhutan sit for the Bhutan Higher Secondary Education Certificate (BHSEC) examination, overseen by the Bhutan Council for School Examinations and Assessment (BCSEA). The results significantly shape students' futures, raising concerns about the effects of these exams on their well-being and coping strategies. Although standardized exams ensure quality and consistency, they can also encourage rote learning, unhealthy competition, and psychological stress. The broader impact on academic growth and long-term success remains underexplored. This study investigates student perceptions of board exams, their coping strategies, and the role of preparatory resources and teaching methods. Using a mixed-methods approach, quantitative data from 3,920 students and qualitative insights from 30 educators and 7 students were collected. Results show a strong positive link between exams and academic performance ($r_s(22) = .75$, $p \leq .001$), but also highlight high stress levels, calling for a more balanced, student-centered examination approach.

Index Terms - Board examinations, Academic performance, Stress levels, Learning outcomes, Preparatory support, Student well-being, Exam pressure, educational outcomes, Student achievement.

INTRODUCTION

In Bhutan, the first independent high-stakes exam, the Bhutan Higher Secondary Education Certificate (BHSEC) for Grade XII students, was introduced in December 2006 after delinking from India's CISCE board (Ministry of Education, 2007). Board exams in Bhutan, conducted at key stages like Grades VI, VIII, X, and XII, are critical milestones influencing students' academic and career pathways (Wangchuk, 2020).

The Grade XII exam determines eligibility for higher education and employment opportunities. However, the intense pressure associated with these exams significantly impacts students' mental health and academic performance. While some thrive under pressure, others struggle due to stress, unequal access to resources, and varying instructional support (Darling-Hammond et al., 2014). This study investigates students' perceptions of the BHSEC exams, coping mechanisms, and how stress, preparation, and pedagogy influence outcomes (Dorji, 2021).

Research Question

The central focus of the study is captured in this overarching research question:

i. What are the impacts of grade XII board exam on the academic performance of the students?

To explore this overarching question in greater depth, the study also addresses several sub-questions.

i. What are positive and negative impacts of XII board exams on grade XII students' academic performance?
ii. How do preparatory resources and teaching methodologies influence students' academic performance?
iii. What coping mechanisms and support systems are most effective in mitigating exam-related stress?

Significance of the study

This study holds importance in contributing practical insights and empirical evidence to improve the design, fairness, and effectiveness of board examinations in Bhutan and beyond.

- Provides valuable insights for policymakers, educators, and stakeholders on the impacts of board examinations on academic outcomes, well-being, and learning experiences.
- Highlights strengths and limitations of the current Bhutanese assessment system to inform more inclusive and equitable examination policies.
- Offers empirical evidence on the influence of preparatory resources, teaching methodologies, and coping mechanisms on student performance.
- Emphasizes the need for balancing academic rigor with psychological and emotional support to foster holistic development.
- Identifies gaps and disparities, advocating for policy interventions to reduce educational inequities and enhance broader learning outcomes like critical thinking and problem-solving.
- Serves as a reference for future research on assessment reforms within Bhutan and globally.

Literature Review

Board examinations are a key component of educational assessment systems globally, including in Bhutan. The Grade XII BHSEC exam plays a critical role in shaping students' academic futures and access to higher education (Wangchuk, 2020; Namgay & Sherpa, 2022). However, limited research exists on how these exams impact student performance and learning outcomes across diverse groups. This review explores existing studies on the academic and psychological effects of standardized assessments, focusing on three themes, positive and negative impacts of board exams, influence of preparatory resources and teaching methodologies on academic performance, strategies to cope with board exams anxiety and influence of support system in preparing for board exams.

1. The impact of Board Examinations on Students academic performance

Board examinations are a longstanding feature of education systems, often serving as high-stakes assessments at the end of key stages. Their impact on student academic performance has been widely debated with some advocating its positive impact (Anghel et al, 2015; Amrein & Berliner, 2002; Wiliams, 2010) while others advocating its negative impacts (Minarechová, 2012; Jones, 2003).

a. Academic performance in high-stakes examinations: Global and Bhutanese perspectives

Academic performance is often seen as a major outcome of high-stakes examinations, though its interpretation varies across educational systems. Globally, research shows that exam systems interact in complex ways with student achievement. Richardson, Abraham, and Bond (2022) found that psychological factors like motivation, self-efficacy, and test anxiety strongly influence exam performance, with motivated students generally excelling while high pressure hampers less resilient learners.

In Bhutan, Wangchuk (2020) reported that while BHSEC exams promoted short-term academic improvement, resource gaps between urban and rural schools led to persistent disparities. Namgay and Sherpa (2022) further noted that socio-economic status, resource access, and emotional resilience critically shaped student success. Bhutan's findings mirror global patterns, showing that while board exams can drive focus, they also heighten stress and widen inequalities (Trautwein & Lüdtke, 2009; Wolf & Stevenson, 2007). Thus, academic outcomes must be evaluated holistically, considering achievement alongside student well-being and access to support (OECD, 2021; Chophel & Choden, 2024).

b. Positive Effects of Board Examinations on Academic performance

Board examinations are intended to provide a standardized assessment of student knowledge and academic ability (Kellaghan & Greaney, 2019). Supporters of high-stakes testing argue that such exams promote consistency and fairness across diverse educational settings (Amrein & Berliner, 2002). Research indicates that board exams can lead to short-term academic improvements, particularly in exam performance and subject mastery (Jansen et al., 2019; Bishop, 2020). Several positive impacts of board exams have been identified.

Board examinations often motivate students to develop disciplined study habits, enhancing academic performance (Jansen et al., 2019). Suto et al. (2018) found that the anticipation of final exams directs students'

attention towards academic tasks, improving focus. In countries like Singapore and South Korea, high-stakes exams are linked to national academic success (Lee & Lee, 2019). Board exams also ensure a uniform measure of student achievement across regions and institutions (Kellaghan & Greaney, 2019).

c. Negative Effects of Board Examinations on Academic performance

While board examinations offer certain benefits, they also pose significant challenges to student learning and academic performance. Critics highlight that the high-pressure environment created by these exams can harm both student well-being and the quality of their learning (Singh & Sharma, 2020). Several negative impacts have been documented.

Rote and surface learning: Board exams often encourage memorization over genuine understanding. Studies by Kistner (2020) and Harlen (2007) reveal that the focus on passing exams promotes surface-level learning, limiting students' critical thinking and their ability to apply knowledge in real-world situations.

Stress and anxiety: The pressure to excel in high-stakes exams contributes to significant psychological strain. Research by Stewart and Richardson (2019) shows that exam-related stress can lead to anxiety, burnout, and reduced academic motivation, with Baker (2018) noting that stress may impair cognitive functioning during exams.

Equity concerns: High-stakes examinations can exacerbate educational inequalities. Jayasuriya and de Silva (2017) found that students from disadvantaged backgrounds often face greater barriers to success due to unequal access to resources and support, reinforcing existing disparities. Thus, while board exams aim to measure academic ability, they can unintentionally undermine learning quality, student well-being, and equitable educational outcomes.

2. The influence of preparatory resources and teaching methodologies on students' performance in Board Examinations

While stress plays a significant role in shaping students' exam experiences and outcomes, it does not operate in isolation. Students' performance in board examinations is also influenced by the availability of preparatory resources and the effectiveness of teaching methodologies (OECD, 2021; Darling-Hammond et al., 2014). The following section examines how differences in access to academic support and instructional quality impact students' readiness and achievement in high-stakes examinations.

Impact of preparatory resources on students' performance

Preparatory resources are essential tools that support students in preparing for board examinations, ranging from textbooks to online materials and private tutoring. The availability, quality, and accessibility of these resources significantly influence students' study effectiveness and exam performance.

Textbooks and study guides: Textbooks and study guides remain primary resources; Zhang and Zuo (2018) found that textbooks aligned with exam syllabi directly improve outcomes by offering targeted content and practice questions. Study guides further simplify complex topics, enhancing student understanding (Sharma & Tiwari, 2019).

Online resources and digital learning tools: Online resources and digital learning tools have also gained importance. Khan et al. (2019) noted that online tutorials, video lectures, and interactive exercises deepen subject understanding, particularly in STEM fields, by offering flexibility and personalized learning.
Private tutoring: Private tutoring s another key resource. Cheung and Ng (2019) reported that students receiving private tutoring often outperform peers who study independently, benefiting from individualized attention not always possible in classroom settings.

Practice tests and mock exams: Practice tests and mock exams also play a vital role. Parker et al. (2001) demonstrated that students who regularly engage with practice exams are better equipped to manage time, reduce anxiety, and improve their overall exam strategies. Altogether, access to diverse and high-quality preparatory resources substantially enhances student success in board examinations.

3. Teaching methodologies and their influence on exam performance

Teaching methodologies refer to the strategies educators employ to facilitate learning, and they play a crucial role in shaping students' understanding, retention, and ultimately, their board examination performance.

Active learning approaches: focus on student engagement through discussions, problem-solving, and hands-on activities. Freeman et al. (2014) found that active learning improves long-term retention and critical thinking, helping students better grasp complex concepts and perform well in exams. Prince (2004) also linked active learning techniques to higher academic achievement in high-stakes settings.

Inquiry-based learning (IBL): a student-centered method encouraging exploration and questioning, develops critical thinking and problem-solving skills, essential for handling complex board exam questions. Although time-intensive, IBL has shown positive impacts in subjects like science and mathematics (Hurd, 1998; Gijbels et al., 2005).

Collaborative learning: where students work in groups to solve problems and discuss ideas, also enhances academic outcomes. According to Johnson et al. (2007), collaborative learning promotes deeper understanding through peer interactions, enabling students to clarify concepts and reinforce knowledge. Overall, teaching methodologies that promote engagement, critical inquiry, and collaboration not only prepare students for board exams but also support broader cognitive and academic development.

4. Coping mechanisms and support systems in mitigating exam-related stress

Coping mechanisms refer to the strategies individuals employ to manage the psychological and physiological stress associated with challenges like exam preparation. These strategies are generally categorized as *adaptive* (positive) or *maladaptive* (negative), with adaptive coping promoting better long-term well-being and academic performance. Among adaptive strategies, *time management* is crucial. Misra and McKean (2000) found that effective time management helps students reduce anxiety, organize their study schedules, and avoid last-minute cramming. Britton and Tesser (1991) emphasized that structured study plans, goal-setting, and regular breaks enhance students' sense of control and reduce overwhelm. *Relaxation techniques* such as mindfulness, meditation, and deep breathing also play a vital role.

Research by Kabat-Zinn (1990) and Goyal et al. (2014) showed that mindfulness practices lower anxiety and improve focus. Khanna and Singh (2015) further demonstrated that regular mindfulness practice correlates with lower stress and better academic outcomes. *Physical exercise* is another effective strategy. Salmon (2001) and Rebar et al. (2015) highlighted that exercise reduces cortisol levels, boosts mood through endorphin release, and enhances cognitive performance, contributing to reduced stress and improved academic achievement. Together, these adaptive coping mechanisms offer powerful tools for students to manage exam-related stress effectively.

Social support systems play a vital role in helping students manage exam-related stress. *Family support* is particularly important; encouragement from parents or guardians can reduce anxiety and improve academic performance when offered with understanding rather than pressure (Misra & McKean, 2000; Kumar & Puri, 2014). Overly controlling behavior, however, can heighten stress levels. *Peer support* also serves as a significant buffer against stress. Engaging in peer study groups, sharing experiences, and receiving emotional support from classmates can decrease feelings of isolation and build confidence. Research by Kuehner (2017) found that students involved in peer support networks reported lower anxiety than those studying alone.

Similarly, *teacher support* is critical during exam preparation. Teachers who offer clear guidance, encouragement, and constructive feedback create a supportive environment, reducing test anxiety and enhancing academic outcomes (Tobin et al., 2015). Together, strong social support systems contribute substantially to student resilience and success.

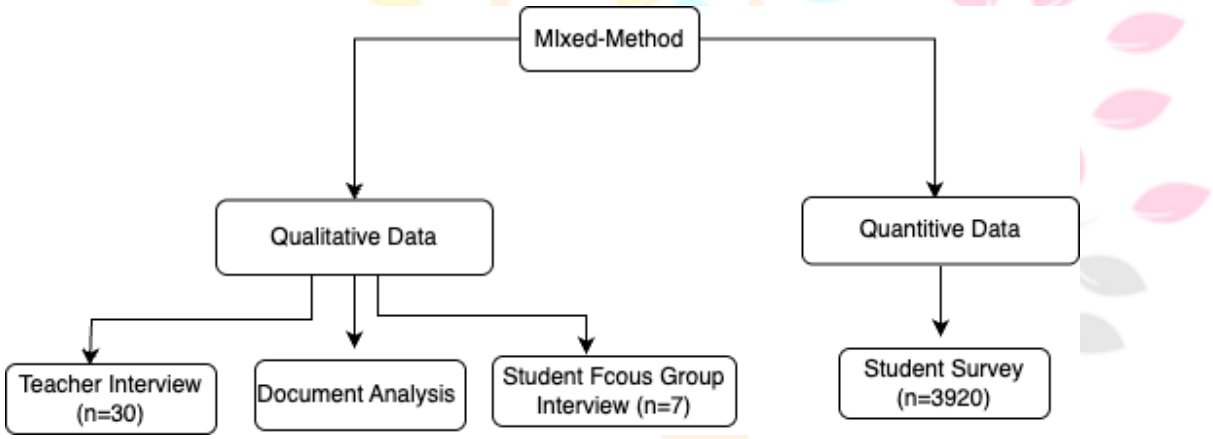
School counselors or academic advisors can provide critical emotional support during exam periods. Counseling services that focus on stress management, coping strategies, and mental health awareness have been shown to improve students' ability to manage exam-related anxiety. A study by Eapen et al. (2015) found that students who received psychological counseling for exam stress demonstrated improved emotional regulation and better academic performance.

RESEARCH METHODOLOGY

The study adopted a mixed-methods approach, integrating both quantitative and qualitative methods to examine the multifaceted impact of board examinations on Grade XII students' academic performance. Quantitative analysis, through document review of examination scores, enabled the identification of performance trends and disparities (Bhardwaj & Panda, 2022). However, numerical data alone could not fully capture the socio-cultural and psychological complexities influencing outcomes, thus necessitating qualitative inquiry (Creswell & Creswell, 2018). As illustrated in Figure 1, the mixed-method design allowed for a deeper exploration of students' lived experiences, including stress, motivation, and coping strategies associated with high-stakes examinations (Putwain & Symes, 2018).

Interviews and focus groups with students and teachers provided rich, contextual insights into how examination pressures influence learning and well-being (Kaur, 2021). This methodological combination reflects Teddlie and Tashakkori's (2009) view that mixed methods offer a more comprehensive understanding by triangulating objective performance metrics with subjective experiences.

Figure 1: Summary of research methodology



1. Data Collection Tools

For the quantitative aspect, the study utilized survey questionnaires administered to teachers and document analysis of board examination results. The teacher survey included Likert-scale items to collect measurable data on examination effectiveness, teaching methods, and student readiness (Creswell & Creswell, 2018). Additionally, document analysis of board exam results provided performance indicators such as pass rates, subject-wise scores, and student group comparisons (Bhardwaj & Panda, 2022). These methods helped establish an empirical baseline and test hypotheses related to achievement gaps (Johnson & Christensen, 2020).

For the qualitative component, semi-structured interviews with teachers and focus group discussions (FGDs) with students were conducted. The interviews explored teachers' perspectives on curriculum alignment, exam pressures, and institutional challenges (Kaur, 2021). FGDs with students provided insights into their experiences with academic stress, motivation, and learning strategies (Putwain & Symes, 2018). These qualitative methods complemented the quantitative data, offering contextual depth and explanation of observed patterns (Teddlie & Tashakkori, 2009).

2. Participants and Sampling Method

The study involved two key participant groups: (1) 30 Class XII teachers from various school types (public, private, rural, urban), and (2) 3,920 Class XII students, stratified by academic performance (high, average, low achievers) and socioeconomic backgrounds. Teachers were selected based on a minimum of five years of experience teaching board-examination classes, ensuring informed perspectives on curriculum and assessment challenges (Cohen et al., 2018). Students were chosen to represent different learning trajectories, as their experiences with high-stakes testing vary based on achievement levels (Braun & Clarke, 2022).

Purposive sampling was used to select participants who could provide rich insights into the research questions (Palinkas et al., 2015). This non-probability method ensured representation across critical variables, such as school type and student performance, while maintaining qualitative depth (Etikan et al., 2016). Teacher

selection criteria included involvement in board-exam preparation and willingness to discuss pedagogical challenges. Student recruitment ensured gender and regional balance to avoid bias (Creswell & Poth, 2018).

3. Validity and reliability of data collection tools

To ensure the credibility and trustworthiness of the study findings, rigorous procedures were applied to establish the validity and reliability of both the quantitative and qualitative tools. To ensure validity and reliability, the structured teacher survey was reviewed by experts and pilot-tested, with internal consistency confirmed through Cronbach's alpha (Drost, 2020). Document analysis relied on verified exam records to ensure construct validity (Johnson & Christensen, 2020). For qualitative tools, expert-reviewed interview and FGD guides, triangulation, member checking, and peer debriefing were employed to enhance credibility and trustworthiness (Nowell et al., 2017). These measures ensured methodological rigor across both data types.

4. Data collection procedure

Data collection began after receiving ethical approval from the Ministry of Education and Skills Development (MoESD) and the relevant administrations of Royal University of Bhutan institutions. Participants were thoroughly informed about the study's objectives, potential risks, benefits, and confidentiality measures. Informed consent was obtained from all participants, who signed consent forms acknowledging their voluntary involvement. To ensure anonymity, participant identities and research site names were kept confidential.

For quantitative data collection, a survey questionnaire was administered via Google Forms. The survey included 35 closed-ended items, adapted from Mengistie (2020) and Whipple (2012), whose instruments are contextually relevant to educational assessment and student performance, with proven validity and reliability. An expert in research reviewed the tools to enhance content validity. A pilot test was conducted to assess reliability, with Cronbach's alpha calculated to ensure internal consistency. The reliability results were satisfactory (Table 1).

Table 1: Reliability Statistics of Different Themes

Sl. No	Themes	Number of items	Cronbach's Alpha
1	Academic performance	6	0.85
2	Experience with board examinations	5	0.89
3	Perceptions of board examinations	8	0.84
4	Study habits and preparation	5	0.88
5	Learning Outcomes	6	0.76
6	**Overall items**	**30**	**0.92**

Qualitative data were collected through multiple methods, including analysis of five years of academic records, interviews with teachers currently teaching students enrolled in grade XII class and classroom observations. Observations were conducted using a modified version of the Teaching Methods Handbook: Postgraduate Diploma in Education (Samtse College of Education, 2020). Four lessons were observed using non-participant observation to examine how teachers prepared and delivered board examination-related content. Additionally, open-ended questionnaires were administered to teachers, focusing on themes such as experiences with board examinations, perceptions of exam effectiveness, student study habits, instructional strategies, and perceived learning outcomes.

To validate the finding's, semi-structured interviews were conducted with twelve students and six teachers from various schools, all of who, had recent experience with board examinations. The interviews were administered in the presence of the researcher, who provided clarification when necessary to ensure accurate responses.

Data Analysis

The Statistical Package for the Social Sciences (SPSS) was used to analyze quantitative data. The mean and standard deviation were calculated as descriptive statistics. The correlation between board examination toward the academic performance was examined using inferential statistics, such as Spearman's rank correlation. When interpreting mean scores and ranges, Pimentel's (2019) proposed level of measurement for the Likert scale is followed (Table 2).

Table 2: Criteria for Interpreting Level of Likert Scale

Likert-Scale	Likert Scale interval	Level of Interpretation	Level of Agreement
1	1.00 – 1.79	Very low	Strongly Disagree
2	1.80 – 2.59	Low	Disagree
3	2.60 – 3.39	Moderate	Neutral
4	3.40 – 4.19	High	Agree
5	4.20- 5.00	Very High	Strongly Agree

The structured questionnaire used a five-point Likert scale to gauge teachers' perceptions, with responses ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The study applied Pimentel's (2019) scale for interpreting mean scores, classifying them as: 1.00–1.79 (Very Low), 1.80–2.59 (Low), 2.60–3.39 (Moderate), 3.40–4.19 (High), and 4.20–5.00 (Very High). This helped assess the overall level of agreement across responses.

For the qualitative interview analysis, thematic analysis was employed using Braun and Clarke's (2006) six-phase framework. This approach allowed for identifying, analyzing, and interpreting patterns in the data, providing insights into teachers' views on board exam impacts. The analysis involved transcription, coding, theme development, and review to ensure accuracy. NVivo software facilitated coding and enhanced analytical rigor. This methodology supported the study's exploratory objectives by capturing the perspectives of key stakeholders in education (Nowell et al., 2017).

RESULTS AND DISCUSSION

This study aimed to assess the impact of board examinations on academic performance, considering both positive and negative effects, as well as long-term impacts. The results from the survey, analyzed through descriptive statistics (mean and standard deviation), are presented below and discussed in light of the existing literature and data triangulation obtained through interviews and document analysis (see table 3)

Table 3: Mean and Standard Deviation of board examinations on students learning outcomes and academic performance

Sl. No	Items	N	Mean	SD	Interpretation
1	**Positive effects of board examinations on academic performance**				
	Motivation and focus	3920	4.47	.42	Very High
	Accountability and standardization	3920	4.17	.30	High
2	**Negative effects of board examinations on academic performance**				
	Rote learning and surface learning	3920	4.27	.38	Very High
	Stress and anxiety	3920	4.17	.35	High
	Equity concerns	3920	4.26	.541	Very High
3	**Long term impacts of board examinations on academic performance**				
	Impact on critical thinking and lifelong learning	3920	4.35	.775	Very High
	Narrowing of the curriculum	3920	3.61	1.033	High

An analysis of data from 3,920 participants reveals both the benefits and drawbacks of board examinations on students' academic performance and long-term educational outcomes. On the positive side, the exams were found to enhance motivation and focus (Mean = 4.47, SD = .42) and promote accountability and standardization (Mean = 4.17, SD = .30). These findings are in line with Trautwein and Lüdtke (2009), who argue that standardized assessments help set clear academic goals, thereby motivating students. Similarly, Wolf and Stevenson (2007) emphasize that such exams create fairness and consistency across schools, with their study reporting a 12–15% improvement in performance in institutions subject to high-stakes testing.

However, the analysis also reveals several adverse effects. Prominent among them are increased reliance on rote and surface learning (Mean = 4.27, SD = .38), heightened levels of stress and anxiety (Mean = 4.17, SD = .35), and concerns about equity (Mean = 4.26, SD = .541). These findings are consistent with Biggs (1999), who notes that high-stakes assessments can encourage memorization rather than meaningful understanding. Zeidner (1998) similarly found that exam pressure often leads to significant psychological distress. Equity issues further complicate the scenario, as highlighted by Smith (2017), who argues that standardized exams may disproportionately affect students from less privileged backgrounds due to unequal access to learning resources.

Regarding long-term effects, the data suggest a positive impact on critical thinking and lifelong learning (Mean = 4.35, SD = .775). This supports findings by Pellegrino et al. (2014), who argue that well-designed assessments can cultivate transferable skills such as analytical thinking. Nevertheless, the concern over curriculum narrowing (Mean = 3.61, SD = 1.033) cannot be overlooked. Darling-Hammond (2017) warns that the emphasis on tested subjects often sidelines arts and humanities, thereby reducing the richness of students' educational experiences.

Qualitative data from interviews and document analysis reinforce these conclusions. Teachers reported feeling pressured to "teach to the test," which narrows instructional focus. Students spoke of the stress involved in preparing for high-stakes exams. Exam papers and curriculum documents revealed a strong emphasis on factual recall, echoing concerns about superficial learning.

Table 4: *Correlation Between stress level and board examination preparation among students*

Correlation	R	Sig.
The Relationship Between Stress Levels and Board Exam Preparation Among Students	0.75	.000

Note: p ≤0.001, Correlation is significant at the 0.01 level (2-tailed).

A strong and statistically significant correlation was found between stress levels and board exam preparation among students (r = 0.75, p = .000), indicating that increased preparation is closely linked to higher stress. This supports existing research by Zeidner (1998) and Hembree (1988), who associate high-stakes testing with elevated anxiety, especially when exams are perceived as crucial for future success. Students reported feeling overwhelmed due to fear of failure and high expectations, while teachers observed that such pressure negatively impacted both well-being and performance.

Document analysis revealed patterns of long study hours, sleep deprivation, and burnout, further confirming the toll of exam preparation. These findings highlight the urgent need for targeted interventions. Providing access to counseling, stress-management workshops, and balanced study strategies could help reduce anxiety, protect students' mental health, and enhance academic outcomes. Addressing stress proactively is essential to fostering a more supportive and effective learning environment during exam periods.

Table 5: Summary Score of preparatory resources and teaching methodologies on student performance in board examinations

Items	N	Mean	SD	Interpretation
Impact of preparatory resources on student performance				
Textbooks and study guides	3920	4.35	.775	Very High
Online resources and digital learning tools	3920	4.22	.736	Very High
Private tutoring	3920	4.26	.541	Very High
Practice tests and mock exams	3920	4.22	.33	Very High
Teaching methodologies and their influence as exam performance				
Active learning approach	3920	4.00	.603	High
Inquiry based learning	3920	3.87	.815	High
Collaborative learning	3920	4.13	.694	High
Grand Mean	**3920**	**4.22**	**.33**	**Very High**

An analysis of the influence of various preparatory resources and teaching methodologies on board exam performance revealed consistently high ratings. Key resources such as textbooks and study guides (Mean = 4.35, SD = .775), online tools and digital platforms (Mean = 4.22, SD = .736), private tutoring (Mean = 4.26, SD = .541), and practice tests and mock exams (Mean = 4.22, SD = .33) were all highly valued for their role in improving student outcomes. These findings align with studies by Belcher (2016) and Anderman & Anderman (2010), which emphasize that comprehensive content review and regular practice are essential for exam readiness. Brown et al. (2012) also highlights the benefits of mock exams in familiarizing students with test formats, reducing anxiety, and boosting performance.

Regarding teaching methodologies, active learning (Mean = 4.00, SD = .603), collaborative learning (Mean = 4.13, SD = .694), and inquiry-based learning (Mean = 3.87, SD = .815) were positively rated. Active learning was particularly recognized for enhancing engagement and critical thinking (Freeman et al., 2014), while collaborative learning was credited for improving knowledge retention through peer interaction (Johnson et al., 2007). Although inquiry-based learning received slightly lower ratings, it still contributed positively, despite its more complex, time-intensive nature that demands independent exploration.

Student feedback emphasized the importance of textbooks, online resources, and practice tests, especially digital tools like educational apps and quizzes, which supported learning through repetition and interactivity. Teachers similarly emphasized the benefits of practice exams in building exam confidence. Educator interviews also confirmed the value of active and collaborative strategies in promoting deeper understanding.

Table 6: Mean and Standard Deviation of coping mechanisms and support systems in mitigating exam-related stress

Items	N	Mean	SD	Interpretation
Adaptive coping strategies				
Time management	3920	4.09	.596	High
Relaxation techniques	3920	3.83	1.029	High
Physical exercise	3920	3.91	.733	High
Social support systems				
Family support	3920	3.87	.757	High
Peer support	3920	3.74	.752	High
Teacher support	3920	3.74	.810	High
Professional counselors				
School counselors	3920	4.04	.475	High
Grand Mean	**3920**	**4.03**	**.584**	**High**

This study explored students' use of adaptive coping strategies and social support systems in managing academic stress, revealing high engagement with time management, relaxation techniques, physical exercise, and professional counseling. Time management (Mean = 4.09, SD = .596), relaxation techniques (Mean =

3.83, SD = 1.029), and physical exercise (Mean = 3.91, SD = .733) were all rated highly, indicating that students actively use these strategies to reduce stress and support academic performance. These findings align with Britton and Tesser (1991), who found that effective time management improves academic performance and reduces stress. Relaxation methods like mindfulness and breathing exercises have also been shown to alleviate anxiety (Kabat-Zinn, 1990), while physical exercise is widely recognized for enhancing mental well-being and cognitive function (Sothmann et al., 2001).

Social support systems also played a vital role. Family support (Mean = 3.87, SD = .757), peer support (Mean = 3.74, SD = .752), and teacher support (Mean = 3.74, SD = .810) were all highly rated. Research by Cohen and Wills (1985) shows that emotional support from others acts as a buffer against academic stress. Peer support enhances motivation and reduces feelings of isolation (Wentzel, 2009), while teacher support—highlighted by Chophel & Choden (2024) and McCarthy et al. (2006)—fosters resilience and academic success, especially during exam preparation.

Professional counseling, particularly through school counselors (Mean = 4.04, SD = .475), was also seen as a valuable resource. According to Reiner and Guy (2011), such support helps students develop effective coping mechanisms and emotional regulation. Interview and document analysis confirmed these findings. Students described using planners and apps for time management and incorporating physical exercise and relaxation into daily routines. Teachers observed that students with stronger social support managed stress more effectively. School records also showed frequent use of counseling services during exam periods.

Additionally, students who viewed board exams positively performed better, with a significant correlation between exam attitude and academic outcomes ($r_s(22) = .75$, $p \leq .001$). However, barriers like large class sizes, time constraints, and rigid exam formats limited students' ability to fully demonstrate their capabilities. Overall, the study highlights that adaptive strategies and supportive environments are key to managing stress and achieving academic success.

Conclusion

This study examined the broader impacts of high-stakes examinations, specifically the BHSEC board exams, focusing on students' perceptions, coping strategies, and access to preparatory resources. It found that board exams have both positive and negative effects. Positively, they promote motivation, focus, accountability, and standardization. Negatively, they contribute to stress, anxiety, rote and surface learning, and raise concerns about equity. Students are keenly aware of the importance of these exams and adopt various strategies to meet their demands. Access to high-quality preparatory resources and effective teaching methods significantly influenced academic performance.

The findings underscore key implications. The study adds to the growing body of literature on the limitations of high-stakes assessments and highlights how students from higher socio-economic backgrounds benefit from better access to preparatory tools. This raises critical equity concerns and calls for policy interventions to ensure all students have equal opportunities.

Another major finding was the limitation imposed by rigid assessment formats. Students often lacked opportunities to express their understanding through diverse formats—such as oral, visual, or creative modes—which could better capture their learning styles. This suggests the need to diversify assessment methods to accommodate different learners. Based on these insights, several recommendations are proposed:

- **Ministry of Education and Skills Development (MoESD):** Address structural challenges like overcrowded classrooms and inflexible assessment formats. Reducing student-teacher ratios and incorporating alternative assessment modes can enhance student engagement and performance.
- **Students:** Adopt proactive attitudes and diverse study strategies tailored to individual learning styles. Time management, self-awareness, and personalized learning can greatly improve exam outcomes.
- **Global Collaboration:** Countries should engage in international dialogue to share best practices in assessment. Initiatives like the OECD's PISA and networks such as APERA and the EU's ET 2020 framework facilitate global benchmarking and collaboration in educational policy and assessment reform.

This study was limited to students taking the BHSEC exams, so its findings may not apply universally. Future research should include students from other board levels (e.g., VI, VIII, and X) to gain a more comprehensive view of the impact of board exams across different age groups.

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