16 years ESJ
Special edition

Towards Inclusive Higher Education: Curriculum Innovation through Optional Subject Integration for Students with Special Needs

Sayma Arju
Department of English, Stamford University, Bangladesh
Jana Chi-san Ho
School of Education, University of Saint Joseph, Macau, China

Doi:10.19044/esj.2026.v22n38p1

Submitted: 20 November 2025
Accepted: 23 January 2026
Published: 23 March 2026

Cite As:
Arju, S., & Ho, J.C.-s. (2026). *Towards Inclusive Higher Education: Curriculum Innovation through Optional Subject Integration for Students with Special Needs*. European Scientific Journal, ESJ, 22 (38), 1. https://doi.org/10.19044/esj.2026.v22n38p1

Abstract

Students with special needs (SSNs) have been slowly but significantly increasing in higher educational institutions (HEIs) of Bangladesh in recent years. Though their inclusion is generally welcomed by university authorities, a significant gap remains in both faculty capacity and curriculum inclusivity. SSNs often receive few accommodations from HEIs, such as assistance from a reader during examinations, extended time (usually 30 minutes), ramps for physical access, or limited library resources, such as braille materials or text-to-speech software, which are far from sufficient. The curriculum followed in most universities is designed primarily for students without disabilities, which puts SSNs at a disadvantage, as they might struggle to compete on equal terms and are unable to demonstrate their true potential under standard teaching and assessment methods. To address this gap, SSNs should be offered optional subjects aligned with their interests and strengths. Such alternatives could improve their motivation and academic performance. This case study-based research explored how three students with special needs improved their academic grades when they were allowed to substitute two of their regular curriculum courses, which they found difficult due to their specific challenges, with two supportive and interest-based courses. Additionally, 30 SSNs were

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

interviewed to determine which electives they would like to be included in the curriculum. Findings suggest that a dedicated pool of electives, designed and offered exclusively for SSNs with appropriate instructional and infrastructural support, can have a significant positive impact. The present study proposed a need-based curriculum design *(NBCD)* model to foster genuine inclusiveness within HEIs.

Keywords: Inclusive education, higher education curriculum, students with special needs (SSNs), optional supportive subjects, academic accommodations, Bangladesh, case study, need-based curriculum design (NBCD)

Introduction

The number of students with special needs (SSNs) in higher education institutions (HEIs) in Bangladesh has been gradually increasing in recent years. This rise is partly due to growing awareness among parents, many of whom now seek early interventions such as speech therapy and occupational therapy as soon as their children are diagnosed with developmental or learning disabilities. Recent studies indicated that approximately 639 SSNs were enrolled across various public universities in Bangladesh in 2023 (Alam & Kabir, 2023). In addition, records from public examinations showed a consistent presence of SSNs in the mainstream education pipelines. For example, in the 2025 Higher Secondary Certificate (HSC) examination, 220 SSNs appeared under only two education boards (Jessore and Rajshahi), whereas nationwide reports from the 2022 HSC examinations recorded 224 differently-abled students taking part across all boards (6 in total).

These numbers suggested that each year a considerable proportion of SSNs progressed to tertiary education, suggesting that their presence in HEIs was expected to grow steadily over the next four years. This projected increase calls for immediate attention, as most university curricula in Bangladesh are not designed with SSNs in mind and may not fully support their learning needs. Moreover, Bangladesh hosts several specialized schools where students requiring substantial support receive individualized instruction based on modified curricula. While many of these students continue in vocational or technical education, a smaller but significant group aspire to pursue higher education in mainstream universities. For these students, the conventional university curriculum, designed largely for neurotypical and typically-developing learners, may impose barriers rather than opportunities.

Ensuring equitable access and meaningful participation requires more than infrastructural adjustments. It also requires flexibility in the study curriculum. SSNs often struggle to demonstrate their capabilities, not because of a lack of competence, but because the curriculum does not accommodate

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

their diverse learning needs. Given this context, we believe it is crucial for Bangladeshi HEIs to develop inclusive and flexible curricular models that support SSNs' learning pathways without compromising academic rigor or the value of the degree. To address this gap, the study proposed a Need-Based Curriculum Design (NBCD) model, which introduces optional, interest-aligned courses and adapted assessment practices to further support SSNs academically within mainstream higher education.

The present curriculum in the universities of Bangladesh

At present, universities across the country are implementing an outcome-based education (OBE) curriculum as outlined in the University Grants Commission of Bangladesh (UGCBD) guidelines. This curriculum is designed around specific, measurable learning outcomes that students must demonstrate upon completion of a course or program. It follows a student-centered approach in which the curriculum, teaching methods, and assessments are derived from pre-defined learning outcomes. The goal is to ensure that students develop the necessary knowledge, skills, and attitudes required for their future professional lives. More specifically, the UGCBD initiated the introduction of the OBE curriculum by creating a standard template in 2018 (see Table 1), which was finalized and approved in early 2020 (University Grants Commission of Bangladesh, 2020). Then, with the Ministry of Education's approval, in line with the Bangladesh Accreditation Council (BAC) standards, the template was sent to universities across the country as a guideline for restructuring their curricula. Finally, in 2021, the Ministry of Education and UGCBD emphasized the implementation of OBE within the Bangladesh National Qualifications Framework (BN-QF). Since the release of the template and guidelines, many universities have been working to reconfigure their programs in line with the OBE system, with some implementing it as early as 2017.

Table 1: Curriculum Structure (OBE Template)

Section	Sub-Category	Details
a. Duration of the Program		Years /Semesters
b. Total Minimum Credit Requirement		(To be specified)
c. Course Distribution		
c-i. General Courses	1. Arts and Humanities 2. Social Sciences 3. ICT 4. Basic Science	
c-ii. Core Courses	1. Major 2. Minor	
c-iii. Optional / Elective Courses	1. Major 2. Minor	
c-iv. Capstone Requirement	Internship / Thesis/ Project	

Note: Course Distribution Breakdown

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

The UGCBD's Curriculum and Credit Framework for Undergraduate Programs (CCFUP*)*, based on the National Education Policy (NEP, 2010), does not prescribe specific percentages but outlines the credit distribution structure. A 4-year undergraduate (UG) program consists of 120 -160 total credits. The credit-based, approximate percentage distribution is shown in Table 2.

Table 2: Course-based Credit Distribution

Course Type	Approximate Percentage of Total Credits	Nature
Core Courses (CC)	50% or more	Compulsory, focuses on deep disciplinary knowledge
Elective Courses (DSE + GE)	30% - 40%	Optional/Choice-based, focuses on breadth and specialization.
Other Courses	10% - 20%	Skill Enhancement (SEC), Value-Added (VAC), Internship, etc.

In the UGCBD proposed curriculum, the Generic Elective (GE) courses are optional courses designed to provide interdisciplinary knowledge.

A student must choose GE courses from a discipline outside their major; for example, an English major may take a course in Economics or Philosophy. Meanwhile, the Discipline-Specific Elective (DSE) courses are also elective, offered within the major discipline to allow students to gain specialized knowledge and depth in specific subfields of their major. Although DSE courses are required to fulfil program requirements, students usually have a choice of which specific DSE course to take from a given pool (e.g., choosing 4 out of 8 DSE options).

However, in most cases, DSE courses are not offered as true options because their availability depends on the presence and specialization of faculty members. Under such circumstances, many universities typically offer around 25% GE courses, 65% core courses, and 10% internship or thesis components. It should be noted that the fundamental characteristic of a Core Course is its compulsory nature. Core Courses are designed to ensure that all students receive the essential, foundational knowledge of the discipline, and therefore, they are mandatory for every student enrolled in that program.

UGC BD has arrangements and policies to support SSNs and promote inclusive education in public universities. UGC BD is working to establish and implement a comprehensive inclusion policy in tertiary education that aligns with the government's commitment to the UN Convention on the Rights of Persons with Disabilities (UNCRPD) and the Persons with Disabilities Rights and Protection Act of 2013. The UGC has taken the initiative to ensure the availability of reserved seats for SSNs in universities during the admission process. In Bangladesh, public universities reserve 2% of seats for SSNs, provided they meet the minimum academic qualifications. In private

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

universities, the reserved quota varies and can reach 4%. The government, through the Ministry of Social Welfare and other programs, provides stipends, scholarships, waivers and grants to students with disabilities at the higher education level to help with costs and prevent dropouts. Besides, educational institutions are encouraged to provide accommodation facilities, including ramps, accessible classrooms, special toilets, and assistive devices such as computers with screen-reading software and Braille materials. They are also advised to offer special examination facilities, e.g., allowing extra time, providing scribes, etc. The UGCBD also promotes awareness programs for teachers and the general university community regarding the needs and capabilities of persons with disabilities. Nevertheless, these arrangements and initiatives have not yet been fully implemented due to the lack of strict policy-level guidelines. While discussions regarding the need for disability inclusion and the required infrastructure have finally begun, there is still little dialogue or initiative to integrate SSNs' needs into the curriculum. The present study aimed to bring these issues to the forefront by presenting real-life case studies as evidence.

Literature Review

The literature review addressed two major areas: key studies on disability inclusion in HEIs and key literature on the access and participation of students with disabilities in HEIs.

Global research has highlighted the ongoing barriers SSNs face in higher education, underscoring that institutional, pedagogical, and attitudinal obstacles persist despite progressive policy frameworks. Dreyer (2021), guided by Vygotsky's sociocultural theory of learning, investigated the experiences of twelve Bachelor of Education (B.Ed.) students with specific learning disabilities (SLDs) at a South African university. The study found that despite having received accommodations at the school level, such as extra time or simplified materials, these students struggled to access equivalent support at the tertiary level. This gap highlighted what Dreyer termed a "policy-practice disjuncture," where institutional commitments to inclusivity failed to materialize in classroom realities. Similarly, Kendall (2016), in a qualitative study involving twenty-five students with disabilities at a university in Northern England, found that the disclosure of students' disabilities remained fraught due to "perceived associated stigma." Students expressed dissatisfaction with Learning Support Plans (LSPs), describing them as "generic rather than individualized," revealing a mismatch between institutional support mechanisms and individualized learning needs. In the United Kingdom, Goode (2007) conducted interviews with fifteen first-year undergraduates with various disabilities, revealing the "emotional labor" required to manage identity, disclosure, and perceptions of legitimacy in

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

academic settings. These findings highlight the psychosocial dimensions of inclusion, showing that institutional accessibility alone does not guarantee genuine participation and meaningful engagement.

In addition, exclusion in assessment practice has been reported in many studies. Hanafin et al. (2006), in a study of 28 students with disabilities across three Irish universities, found that rigid assessment procedures and limited accommodations restricted students' meaningful participation. They recommended flexible and alternative assessment methods aligned with Universal Design for Learning (UDL) principles. Echoing this concern, Hariri (2018) examined the experiences of forty-eight undergraduate students with learning disabilities in Saudi Arabia and found that they "are not provided with the needed academic support," with most teachers lacking professional training to accommodate diverse learning needs. A major challenge in educational projects is the design of assessments, particularly exams. Research indicates that teachers often struggle to adapt and are frequently reluctant to implement alternative assessment methods (Moswela & Mukhopadhyay, 2011). Fernández-Batanero et al. (2022) further supported these findings through a meta-synthesis of fifty-five empirical studies conducted between 2011 and 2021 across different countries, concluding that "access and participation remain the most significant challenges" in higher education. The authors argued that addressing these challenges requires systemic reform in pedagogy, curriculum design, and institutional culture.

Couzens et al. (2015) conducted a qualitative case study at an Australian university involving seven undergraduates with hidden (not easily observed) disabilities, including dyslexia, ADHD, and mental health conditions, to explore academic support structures. Guided by inclusive education principles, the study revealed that students benefited from increased "flexibility and choice across courses and programs," especially when given time to address learning difficulties through varied learning modes, technologies, and alternative assessment formats. Similarly, Mortimore and Crozier (2006) examined 100 students with dyslexia from five UK HEIs, using surveys and interviews to assess academic experiences and support mechanisms. Their findings highlighted persistent unmet needs in organizing coursework, learning from lectures, and developing academic writing skills. The authors found that most students with dyslexia received inadequate or generic support, which often failed to account for discipline-specific demands. Again, Hammadi et al. (2024) identified four primary impediments in a meta-analysis: lack of faculty training in inclusive pedagogy, insufficient infrastructure and resources, fragmented support systems, and limited curriculum adaptation. The authors concluded that sustainable inclusion requires addressing attitudinal, resource-based, and informational barriers, particularly negative teacher attitudes, budget constraints, and limited access

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

to instructional materials. The limitation noted was that most included studies focused on developed countries, with limited representation from developing countries, where systemic barriers are often more severe.

Complementing these empirical findings, policy-oriented initiatives such as the *National Working Party on Dyslexia in Higher Education* (1999) and the *Teachability Project* (University of Strathclyde, 2000) proposed comprehensive frameworks for embedding accessibility within the curriculum, promoting inclusive assessment design, and training faculty to apply domain-specific universal design principles to accommodations for SSNs.

In the Bangladeshi context, inclusive higher education remains largely underdeveloped. While inclusive teaching is increasingly advocated at the school level, over half of the children with disabilities remain outside of formal schooling, which significantly reducing their entry into tertiary education (Education, 2023). The existing literature on inclusive education in Bangladesh focused on primary and secondary levels (Ahsan & Mullick, 2013) and highlighted systematic challenges such as a lack of teacher training, resources and attitudinal barriers (Malak et al., 2021).

Although literature has extensively documented the barriers faced by students with disabilities in higher education, a persistent gap remains: existing studies have rarely proposed a model that integrates student interest, course flexibility, and individualized curricular pathways in formal tertiary degree programs. In Bangladesh, empirical research on inclusive higher education is extremely limited. Barely any research has examined how SSNs experience curriculum-related barriers, such as specific courses they struggle with and how interest-based alternatives could affect students' engagement and performance. Also, previous studies seldom investigated the voices of parents and teachers simultaneously, who play a crucial role in curriculum decisions and student support. Therefore, this study aimed to explore the key academic and curricular challenges faced by SSNs and how curriculum flexibility and the integration of optional subjects can support SSNs in formal higher education institutions (HEIs) in Bangladesh. Specifically, we aimed to identify course-related difficulties and interest-based curricular preferences of SSNs, along with the expectations of parents and teachers regarding curriculum flexibility. This study examined data from students, parents and teachers to propose an optimal Need-Based Curriculum Design (NBCD) model for HEIs in Bangladesh and sought to identify feasible strategies for developing an inclusive curriculum model that can accommodate students' diverse learning needs without compromising academic standards.

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

The study is guided by the following five research questions:

1. What curricular and academic challenges do SSNs face in existing university programs in Bangladesh?
2. Which courses do SSNs find most difficult? Which courses do they prefer?
3. What are parents' expectations regarding curriculum adaptation and academic support for their children with special needs?
4. What strategies do teachers recommend for adapting the curriculum and assessments to better support SSNs?
5. What elements should be included to ensure inclusion, engagement and academic success for SSNs without compromising academic standards?

Methodology

This study employed a qualitative research approach and used data triangulation by including multiple types of samples and sampling procedures. First, three student participants were selected for in-depth case studies, followed by interviews and focus group discussions with 30 students (S = 30), 5 parents (P = 5), and 30 teachers (T = 30). Among the student participants, there were 6 with dyslexia, 6 with both dyslexia and speech impairments, 7 with both attention deficit and speech impairments, 2 with both speech and hearing impairment, 4 with attention deficit and social communication disorder, and 5 with ADHD. All participants were from a private university in Dhaka, Bangladesh. Given the small number of SSNs, purposive sampling was used. Student participants were drawn from the Departments of English, Journalism and Media Studies, Environmental Science, and Architecture. All student participants had been diagnosed with learning disabilities by a physician or psychologist prior to their university admission. Additionally, all of them had sought support from a counsellor or medical professional at some point in their lives(see Table 1 in the Appendix).

Three sets of semi-structured interview questions were used as data-collection instruments for students, parents, and teachers, respectively. For the student interviews, the questions explored the challenges they faced within the existing curriculum, their expectations, the courses they found most difficult and would, if possible, remove, and the courses they would like to see included to better showcase their potential. For the teachers' focus group discussion, two major questions were emphasized: 1) How can the curriculum be developed and adapted to ensure inclusivity and adequate support for SSNs? 2) What measures can be instituted to mitigate risks associated with the misuse of accommodations or fraudulent attempts to secure undue academic advantages? For parents' interviews, the questions focused on their

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

expectations of the university regarding curriculum design and support for their children.

Though three cases were presented separately in a descriptive manner, data from interviews and focus group discussions were analyzed after coding and categorizing (Lincoln & Guba, 1985). The author coded the data using free nodes to identify differences, consistencies, and connections between emerging themes. Through repeated reading, recurring patterns and themes across participants' responses were identified, and final categories were developed based on these shared insights. Notable or exceptional remarks from respondents were also documented to enrich the interpretation. The individual needs for each case are summarized in Table 3.

Table 3: Profile Summary of Individual Cases

Case	Profile Summary	Challenges Identified	Academic Needs	Curriculum Adaptation Required
Case-1	• 4th year, English Studies •Listening and speech impairment • Performs well in written tasks • Avoids speaking-heavy courses	• Cannot participate in oral presentation-based courses (i.e., Public Speaking and Advanced Conversation). • Difficulty following lecture discussions without visual/verbal support. • Relies heavily on the mentor for classroom communication.	• Substitution of speaking-intensive courses with interest-based electives. • Access to lecture transcripts, written instructions, and visual supports. • Continued structured mentoring.	• Policy allowing elective substitution for oral-performance-based courses. • Multimodal delivery guidelines for faculty. • Standardized mentoring support within the department.
Case-2	• 3rd year, English Studies • Speech impairment and dyslexia • Good conceptual grasp • Avoids all oral assessments • Performs poorly due to assessment mismatch	• Unable to participate in oral presentations and conversation-based classes. • Dyslexia makes reading-heavy and rapid-writing tests challenging. • Disadvantaged assessment formats with oral components.	• Flexible alternative assessment options (recorded presentation, written alternatives). • Extended time and dyslexia-friendly materials. • Substitution of speaking-intensive courses. • Clear and written accommodation plan.	• Formal assessment flexibility for speech-related disabilities. • Inclusion of dyslexia accommodation policy. • Policy for alternative courses in curriculum adaptation.
Case-3	• 4th year, Business Administration program • Attention disorder and dyscalculia • Repeatedly fails math courses • Strong interest in language-based subjects	• Unable to process mathematical content even after multiple attempts. • Dyscalculia affects symbolic interpretation, sequencing, and numeric reasoning. • Repeated failure delays degree completion.	• Alternative quantitative pathway or math-substitution option. • Structured remedial instruction with a learning specialist. • Assessment modification (project-based, applied tasks).	• University policy recognizing dyscalculia as grounds for course substitution. • Flexibility in compulsory quantitative requirements. • Integration of cross-disciplinary elective options.

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

CASE-1

Case-1 was a student of the 4th year in the English Studies program. She had both listening and speech impairments. Throughout her academic journey, she relied on a mentor to support her with various class activities. Despite these challenges, she consistently achieved good grades across her courses and did not request any additional examination-related accommodation.

CASE-2

Case-2 was also a student in the English Studies program, currently enrolled in the second semester of the third year. He had speech impairments and dyslexia. Although his overall course grades were just at the passing level, his in-class performance demonstrated a sound understanding of the course materials. His scores dropped primarily because he avoided all forms of oral assessment. Since each course required multiple types of evaluation, including quizzes, written tests, assignments, oral examinations, and presentations, teachers made assessment accommodations to support him.

Both Case-1 and Case-2 faced significant challenges, specifically in two compulsory speaking-based courses: Public Speaking and Advanced Conversation, which required extensive oral performance. In these courses, they became helpless and sought faculty support. As a result, the department wrote to the UGCBD through the university authority, requesting permission to offer these two student alternative courses as substitutes for the two speaking-intensive courses so they could successfully complete their degree requirements.

This decision was relatively easy for the department because the optional courses offered to the students were part of the new curriculum introduced for cohorts admitted from 2023 onwards, whereas Case-1 and Case-2 were admitted in 2022 under the previous curriculum. The need for a formal guideline to address similar cases has been highlighted by requests from multiple students with diverse special needs. Although the department initially proposed advanced computer courses as alternatives, both students declined these options.

CASE-3

Case-3 was a student of the 4th year, final semester of the Bachelor of Business Administration program. He had attention disorder and dyscalculia. He had successfully completed all courses in the syllabus except two math courses, which he had attempted twice but failed on both occasions. He reported that he was unable to cope with mathematical content and thus requested that alternative courses, preferably language courses, be substituted for the math requirements. However, the Department of Business

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

Administration did not accept his application. As a result, he enrolled in the math courses for the third time. Although a faculty mentor was assigned to support him, his performance (up to the midterm examination) remained unsatisfactory.

Data Analyses

Analyses of Students' Interview Data

In response to the questions about challenges SSNs faced within the existing curriculum and their expectations for improvement, several recurring issues emerged from the data. Many students reported difficulty managing the workload due to the number of courses they were enrolled in simultaneously. For example, one student stated, *"Too many courses going on at the same time and I cannot manage time to study."* (S-11). Others expressed frustration with incomplete syllabus coverage and a heavy reliance on self-study: *"In some courses, before completing the syllabus, exams are taken. Teachers ask us to study the text at home, and lectures are based mostly on discussion. This self-study mode is really problematic."* (S-27). Confusion regarding course expectations was also highlighted. As one student noted, *"I don't understand what to do with the courses, how to answer in the test... I want something that I can handle."* (S-14). Several students emphasized the need for more practical and experiential learning opportunities: *"I want experiment- and practical-activity-based courses; theory-based courses are hard."* (S-5). Monotony and disengagement during lecture-heavy classes were also evident: *"Theory and lecture-based classes are boring… I feel sleepy."* (S-2). In addition, some students questioned the relevance and volume of the Generic Elective (GE) requirements: *"The GE courses are huge. I don't know why I need them and study them."* (S-30).

Data collected from students highlight a distinct contrast between the courses they found difficult and the courses they wished to include in the curriculum (see Table 4). Courses that Students reported as the most challenging were with high theoretical and abstract content, heavy reading and memorization requirements, a lack of practical or applied learning opportunities, confusion regarding course expectations, and assessment. On the other hand, students expressed a desire to replace or complement these difficult courses with more applied and creative subjects. Data suggest that students valued experiential, hands-on, and creative learning opportunities over purely theoretical coursework. This analysis indicates a strong mismatch between the current curriculum's theoretical focus and students' learning preferences, highlighting the need to redesign the curriculum and to incorporate applied, creative, and student-centered learning experiences.

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

Table 4: Courses Preferred by the Students

The Most Difficult Courses Reported	Courses that Students Preferred
American Literature	Creative writing
Western History highlights	Content making
Literary Theory	Content writing
Phonetics	Story telling
Linguistics	Psychology
International relations	Movie making
Origin of Bangla culture	Graphic editing
Mathematics	Animation making
Economics	
Structures	

Analysis of Parents' Interview Data

Interviews with parents revealed consistent expectations regarding how the curriculum should support their children with special needs. The key concerns expressed revolve around alignment with student strengths, flexibility in course selection, and reducing barriers that lead to failure or demotivation. Themes that emerged from the data indicate that parents emphasized the importance of offering courses that match their children's abilities. One parent highlighted her daughter's talent in craft-making and recommended incorporating such skill-based courses into the curriculum: *"My daughter is good at painting and making crafts… If you offer a course on crafting that will be beneficial for her."* (P-1). This indicates a clear demand for courses that allow SSNs to apply their artistic and practical abilities rather than restricting them to highly theoretical content. A parent (P-2) explained that her son avoided studying subjects he found difficult and practiced only those he felt confident in. She suggested that offering more optional or interest-based courses could improve his academic achievement. This reflects a need for a curriculum structure that enables students to select courses aligned with their strengths. Another parent expressed frustration regarding her daughter's failure in linguistics: *"She does well in all subjects, but in linguistics she failed… arrange something easier for her."* (P-3). Here, parents view academic failure not only as an educational setback but also as a financial burden, illustrating the high stakes of rigid curricular requirements. One parent (P-4) reported that her son missed exams and oral presentations, suggesting he would perform better in writing-based courses. This indicates the need for diversified assessment options that cater to different cognitive and communication abilities. A more informed parent (P-5) highlighted the importance of choosing subjects that align with his son's drawing and painting skills to maintain motivation. These points indicate the need for an interest-driven curriculum to create meaningful pathways for SSNs. Data gathered from the parents' interviews are shown in Appendix A, Table 2.

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

Analyses of Data from the Teacher Focus Group

To address the issues related to curriculum adaptation in Cases 1 and 2, a focus group discussion was held with 30 teachers. Data collected from the focus group discussion are shown in Table 5. The teachers supported offering two alternative courses, *Introduction to Gender Studies* and *Introduction to Bangladesh Studies*, instead of *Public Speaking* and *Advanced Conversation*. They noted that these courses were relevant to the core modules in the English curriculum. The group agreed that special arrangements would be required to assist SSNs in the future. However, they noted a lack of government policy on curriculum adjustments for SSNs.

Table 5: Data from the Teacher Focus Group

Teacher Group Theme	Quotation / Idea	Underlying Need	Recommendations
Flexible Course Options	Replace Public Speaking & Advanced Conversation with *Introduction to Gender Studies* and *Bangladesh Studies*	Course relevance & accessibility	Alternative courses aligned with core curricula are meaningful and accessible for SSNs.
Curriculum Flexibility	Policy for Alternative Courses: 10% core credits as substitutes	More autonomy for SSNs	Flexibility allows students to choose courses that match their strengths, thereby reducing barriers.
Support Mechanisms	Extra time, scribes, and alternative assessments	Reasonable accommodation	Alternative assessments (oral and project-based) and extra support are needed to fairly evaluate SSNs.
Guided Course Selection	Help SSNs choose GE / DSE courses	Matching ability & interest	Without guidance, students may pick courses that are too difficult or misaligned with their strengths.
Skill-Based Learning	Practical activity-based courses	Professional and experiential learning	Hands-on courses help students develop real-world skills and improve inclusion.
Integrity & Accountability	Require authentic documentation to access accommodations	Prevent misuse of accommodations or fraudulent attempts	Safeguards are necessary to ensure that only eligible students benefit from accommodations.

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

Discussion

The findings of this study revealed significant gaps in the university-level curriculum structure and delivery mechanisms for SSNs in Bangladesh. Although HEIs have begun adopting outcome-based education, students' experiences indicated that the current implementation remained exclusive (Biggs & Tang, 2011; UGCBD, 2020).

The cases collectively illustrated the urgent need for a flexible, needs-based curriculum structure in Bangladeshi higher education, particularly for students whose special needs directly conflict with compulsory course and assessment requirements. Across the cases, a consistent pattern emerges: students were not struggling due to the lack of ability or effort, but because the existing curriculum is rigidly tied to uniform course pathways and assessment formats that do not account for diverse learning profiles. All three cases of the study demonstrated how mandatory courses, especially those requiring oral performance or mathematical reasoning, can become structural barriers when they do not align with a student's special needs profile. For Case-1 and Case-2, speaking-intensive courses and oral assessments directly contradicted their speech-related impairments. Their academic challenges intensified due to the rigidity of the curriculum. Similarly, Case-3 repeatedly failed in math courses, not because of a lack of conceptual understanding but due to dyscalculia, which fundamentally hindered numerical processing. These findings highlight the necessity of interest-driven elective substitution and alternative curricular routes. For example, for students with oral communication barriers, substituting speaking-heavy courses with writing- or reading-based electives can enable meaningful academic participation without compromising learning outcomes. For students with dyscalculia, alternative quantitative courses or project-based modules can offer valid pathways to demonstrate competency. Thus, a Need-Based Course Pathway (NBCP) model, where compulsory courses can be replaced by aligned alternatives, emerges as a critical structural reform.

Assessment rigidity further enhances inequality. Case-1 and Case-2 both experienced assessment mismatch due to compulsory oral presentations and tasks. Case- 2, in particular, showed a clear gap between conceptual understanding and assessed performance, as his academic results did not reflect his class performance, which revealed that standardized assessment formats posed unfairness for SSNs. Flexible accommodations in assessments, such as allowing recorded presentations, written alternatives, extended time, or multimodal submissions, can uphold academic standards while ensuring accessibility. For Case-3, alternative assessment formats (applied tasks, projects, or technology-assisted problem-solving) would offer a more accurate measure of learning. These examples demonstrated the need for institutionalized assessment-accommodation policies to support SSNs.

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

The parents' perspectives also supported the importance of designing an inclusive curriculum that aligns with the abilities, interests, and learning profiles of SSNs. By tailoring curriculum structures to student strengths, universities can enhance motivation, reduce failure rates, and support academic persistence. This finding resonates with the inclusive pedagogy research by Florian & Black-Hawkins (2011). The parents' concerns about their children failing theoretical or linguistics-heavy courses mirror challenges identified in Bangladeshi research, where students with disabilities often struggled due to inaccessible curricular demands and limited academic accommodations (Rahaman, Das, & Zaman, 2024). These findings suggest that despite national policies promoting disability inclusion, curriculum-level adaptations remain insufficient in practice. Moreover, parents' requests for alternative courses and assessment formats show the need for more flexible curricula. In outcome-based education, inclusive implementation allows students to achieve learning outcomes through different learning paths and assessment methods (UGCBD, 2023). However, rigid course structures and standardized assessment formats may inadvertently disadvantage SSNs.

Another major concern emerging from student interviews is the heavy course load and the simultaneous enrolment in many courses, which created an unmanageable academic burden to SSNs. SSNs often require extended time for comprehension and reinforcement; therefore, a dense course schedule contradicts principles of inclusive curriculum design (Hehir et al., 2016). This finding aligns with existing literature, which emphasizes flexible pacing and reduced cognitive load to support diverse learners (CAST, 2018). The students also reported incomplete syllabus coverage and rushed assessments, which were often accompanied by an overreliance on self-directed learning. SSNs benefit from predictable instructional structures and guided scaffolding (Rao et al., 2017). Learners experience heightened anxiety and reduced performance when assessments are conducted without adequate instruction, indicating that current practices do not meet inclusive standards recommended in higher education (UNESCO, 2020).

Students also expressed a preference for practical, experiential, and hands-on learning as alternative or optional to courses. This aligns with Universal Design for Learning (UDL) principles, which recommend multiple means of engagement and representation to accommodate diverse learning needs (CAST, 2018). Finally, students questioned the relevance and volume of Generic Elective (GE) courses, suggesting that current GE offerings did not align with their academic readiness or interests. Similar concerns have been noted in studies examining student workload and curriculum relevance in OBE structures (Spady, 1994). This indicates a need to re-evaluate GE design and credit distribution within an inclusive framework. Spady (1994) recommended providing multiple pathways for diverse learners to achieve outcomes. His

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

recommendation houses flexibility in varied learning strategies, alternative assessment options, differentiated instructional methods, and flexible timeframes for achieving mastery.

The teachers' recommendations reflect a strong commitment to inclusive curriculum design, aligning with principles from both Universal Design for Learning (UDL) and inclusive pedagogy. Their call for optional courses, flexible assessments, and guided course selection resonates with research showing that flexible course structures and assessments enhance engagement and support diverse learners (CAST, 2018; Rao et al., 2017). In Bangladesh, this push is especially timely. Despite existing policy rhetoric on disability inclusion, practical implementation at the curriculum level remains weak (Zaman & Raqib, 2023). Teachers' emphasis on substituting a percentage of core credits for more suitable alternatives suggests a feasible reform route without compromising academic standards. This reflects a rights-based, equity-focused approach to curriculum adaptation advocated in Bangladeshi policy critique (Ferdousi, 2022). Additionally, the concern about the misuse of accommodations is a realistic one and mirrors findings in the inclusive education literature: institutions must balance flexibility with accountability (Florian & Black-Hawkins, 2011). Requiring authentic documentation and maintaining academic integrity through varied assessments offer practical and ethical safeguards. Moreover, integrating practical, activity-based courses supports both skill development and inclusion, which in turn could reduce dropout rates and improve retention (Rahaman et al., 2024). Implementing these changes will require institutional initiatives, government policy support, and resource investment.

Recommendations

Based on the findings of the study and stakeholder discussions, several key recommendations emerge to guide curriculum reform for supporting SSNs in higher education institutions in Bangladesh:

Introduce Curriculum Flexibility

The findings strongly indicate the need for institutionalized curriculum flexibility that allows SSNs to complete their degree requirements without being disadvantaged by compulsory courses that do not align with their abilities. Flexibility should be embedded as a formal policy rather than negotiated on a case-by-case basis.

Provide Flexible Course Options (to Address Course-specific Challenges)

- A 10% substitution of Core Course credits may be allowed for SSNs, enabling them to replace the most challenging compulsory courses with elective or interest-based alternatives.

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

- Alternative course selection must be student-driven, ensuring choices aligned with the learner's strengths, interests and long-term goals.
- Advanced computer courses should not be set as default alternatives, as evidenced by the cases' rejection of such options. Instead, course options should be drawn from a broader choice pool with clear academic alignment.

Include Skill-Based and Practical Courses

The study recommends integrating skill-oriented, practical and activity-based courses to enhance employability and professional readiness, and to reduce the cognitive load associated with lecture-heavy content.

Implement Alternative Assessment Methods

To ensure fair evaluation, introduce multiple alternative assessments, such as recorded presentations, oral exams, projects, portfolios, viva alternatives, and extended time. Develop a formal assessment flexibility policy for students with speech impairments, dyslexia, attention disorders and other learning disabilities.

Establish Safeguards Against Misuse of Accommodations

To prevent misuse, it is required to submit authentic medical or psychological documentation for accessing curriculum flexibility or assessment accommodations, and to develop a standardized departmental verification process to ensure transparency.

Move Toward a Need-Based Curriculum Design (NBCD) Model

Findings of the study emphasize the need for a NBCD (see Figure 1) to support SSNs in Bangladesh. Such a model should integrate:

- flexible pathways,
- alternative course substitutions,
- multimodal instruction,
- inclusive assessment formats,
- policy-level recognition of learning disabilities, and
- faculty training on inclusive pedagogy.

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

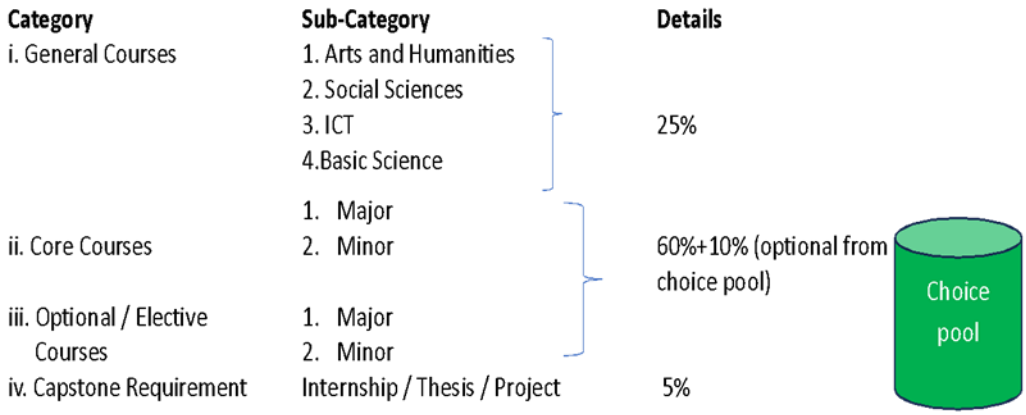

Figure 1: Proposed Curriculum in NBCD with a Course Distribution Breakdown

Conclusion

Given the increasing number of SSNs in secondary schools in Bangladesh, it is essential to develop a Need-Based Curriculum Design (NBCD) to promote inclusivity and strengthen equity within higher education. Findings from this study, drawn from real cases, show that curriculum rigidity, uniform assessment practices, and limited course choice significantly restrict meaningful participation for SSNs. The proposed NBCD seeks to enhance academic equity, improve student engagement, and align Bangladeshi higher education with global standards of inclusive practice. Additionally, this study empowers two key stakeholder groups: students and parents, by providing evidence to support their claims for accessible and equitable education. Although the sample size of the present study is small, it offers a critical pathway for rethinking the existing curriculum, which currently fails to address the needs of SSNs in practice. The findings also highlight the need for future research with larger and more diverse samples to strengthen the reliability and generalizability of the results.

Conflict of Interest: The authors reported no conflict of interest.

Data Availability: All data are included in the content of the paper.

Funding Statement: The authors did not obtain any funding for this research.

References:

1. Biggs, J., & Tang, C. (2011). *Teaching for quality learning at university* (4th ed.). McGraw-Hill.

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

2. CAST. (2018). *Universal Design for Learning guidelines version 2.2.*http://udlguidelines.cast.org.
3. Couzens, D., Poed, S., Kataoka, M., Brandon, A., Hartley, J., & Keen, D. (2015). Support for students with hidden disabilities in universities: A case study. *International Journal of Inclusive Education, 19*(10), 1068–1087.
4. Dreyer, L. M. (2021). Specific learning disabilities: Challenges for meaningful access and participation at higher education institutions. *Africa Education Review, 18*(2), 14–28.
5. Florian, L., & Black-Hawkins, K. (2011). *Exploring inclusive pedagogy*. *British Educational Research Journal, 37*(5), 813–828. https://doi.org/10.1080/01411926.2010.501096.
6. Fernández-Batanero, J. M., Montenegro-Rueda, M., & Fernández-Cerero, J. (2022). Access and participation of students with disabilities: The challenge for higher education. *International Journal of Environmental Research and Public Health, 19*(19), 11918. https://doi.org/10.3390/ijerph191911918.
7. Goode, J. (2007). Managing' disability: Early experiences of university students with disabilities. *Disability & Society, 22*(1), 35–48.
8. Government of the People's Republic of Bangladesh, Ministry of Education. (2010). *National Education Policy 2010*. Secondary and Higher Education Division. https://planipolis.iiep.unesco.org/sites/default/files/ressources/bangladesh_national_education_policy_2010.pdf.
9. Hammadi, S., Al-Dhawi, A., & Ahmed, R. (2024). Barriers and inclusion strategies in higher education institutions: A systematic review. *Education Sciences, 14*(3), 210. MDPI.
10. Hanafin, J., Shevlin, M., Kenny, M., & McNeela, E. (2006). Including young people with disabilities: Assessment challenges in higher education. *Higher Education, 54*(3), 435–448. https://doi.org/10.1007/s10734-006-9005-9.
11. Hariri, R. A. (2018). The challenge of being a higher education student with learning disability: Examining available and needed support. *Journal of Education and Special Needs, 7*(2), 45–57.
12. Hehir, T., Grindal, T., Freeman, B., Lamoreau, R., Borquaye, Y., & Burke, S. (2016). *A summary of the evidence on inclusive education*. Abt Associates.
13. Kendall, L. (2016). Higher education and disability: Exploring student experiences. *Cogent Education, 3*(1), 1256142.
14. Malak, M. S. (2013). Inclusive Education Reform in Bangladesh: Pre-Service Teachers' Responses to Include Students with Special

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

Educational Needs in Regular Classrooms. *International Journal of Instruction, 6*(1), 121-136.

15. Mortimore, T., & Crozier, W. R. (2006). Dyslexia and difficulties with study skills in higher education. *Studies in Higher Education, 31*(2), 235–251.
16. Moswela, E.; Mukhopadhyay, S. (2011). Asking for too much? The voices of students with disabilities in Botswana. *Disabil. Soc. 26*, 307–319.
17. National Working Party on Dyslexia in Higher Education. (1999). *Dyslexia in higher education: Policy, provision and practice.* University of Hull.
18. Rahaman, M. M., Das, A., & Zaman, R. A. (2024). Accessibility and Inclusion of Students with Disabilities in University of Dhaka: Transforming the University in Line with Sustainable Development Goals. *Teacher's World: Journal of Education and Research, 49*(1), 205–225. https://doi.org/10.3329/twjer.v49i1.70271.
19. Spady, W. (1994). *Outcome-based education: Critical issues and answers*. American Association of School Administrators.
20. University Grants Commission of Bangladesh. (2020). *Template of outcome-based education (OBE) curriculum* [PDF]. University Grants Commission of Bangladesh. https://www.ugc.gov.bd/sites/default/files/files/ugc.portal.gov.bd/notices/e4c1bdfd_8db9_4af8_a538_34dbc84ed2b0/OBE131019.pdf.
21. UNESCO. (2023). *Guidance for generative AI in education and research*. UNESCO. https://www.unesco.org/en/articles/guidance-generative-ai-education-and-research.

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

Appendix

Table 1: Students' demographics and support received

Sample No.	Category of Special Needs	Support Received	Present Condition
S-1	Speech and hearing impairment	Medication, therapy	Requires medication and therapy
S-2	Dyslexia	Speech therapy; behavioural therapy	Requires medication
S-3	Dyslexia and speech impairment	Medication and therapy	Requires medication and therapy
S-4	ADHD	Medication, therapy	Requires medication
S-5	Dyslexia	Speech therapy	Requires medication
S-6	Attention and communication disorder	Medication, therapy	Requires medication and therapy
S-7	ADHD	Medication, therapy	Requires medication
S-8	ADHD	Medication, therapy	Requires medication
S-9	Dyslexia	Speech therapy	Does not currently receive support
S-10	Attention and communication disorder	Medication, therapy	Requires medication and therapy
S-11	Dyslexia and speech impairment	Medication and therapy	Receives medication and therapy
S-12	Attention and speech impairment	Medication	Requires medication
S-13	Speech and hearing impairment	Medication, therapy	Requires medication and therapy
S-14	ADHD	Medication	Requires medication
S-15	Dyslexia and speech impairment	Medication and therapy	Requires medication and therapy
S-16	Attention and speech impairment	Speech therapy	Requires medication
S-17	Attention and speech impairment	Speech therapy	Requires no support
S-18	Dyslexia	Speech therapy	Does not currently receive support
S-19	Attention and communication disorder	Medication, therapy	Requires medication and therapy
S-20	Attention and communication disorder	Medication, therapy	Requires medication and therapy
S-21	Attention and communication disorder	Medication, therapy	Requires medication and therapy
S-22	Dyslexia and speech impairment	Medication and therapy	Requires medication and therapy
S-23	Attention and speech impairment	Speech therapy	Does not currently receive support
S-24	ADHD	Medication, therapy	Requires medication
S-25	Dyslexia	Speech therapy	Requires medication
S-26	Dyslexia	Speech therapy	Requires medication
S-27	Attention and speech impairment	Speech therapy	Requires medication
S-28	Dyslexia and speech impairment	Medication and therapy	Requires medication and therapy
S-29	Attention and speech impairment	Speech therapy	Requires medication
S-30	Attention and speech impairment	Speech therapy	Requires medication but does not take

Note. Sample identifiers are pseudonyms used to ensure participant anonymity. Categories of special needs, support received, and present condition are based on participant self-reports.

ISSN: 1857-7881 (Print) e - ISSN 1857-7431
20-21 November 2025, Tbilisi, Georgia

Table 2: Data Interpretation Chart: Students' Interview

Parent Code	Quotation	Key Concern / Need	Interpretation
P-1	*"My daughter is good at painting, making crafts… her handicrafts are sold in a boutique shop. If you offer a course on crafting, that will be beneficial for her."*	Need for skill-based, strength-oriented courses	Parents prefer curriculum options that align with students' artistic strengths, suggesting that creative and practical courses can enhance confidence, employability, and academic success.
P-2	*"My son does not study the subjects he finds hard and only practices subjects he is confident in… if you offer optional courses that match his choice, his result may improve."*	Need for flexible elective choices	Students with learning disabilities avoid cognitively demanding subjects; offering more choice-based, interest-driven electives may improve academic performance and reduce stress.
P-3	*"She does well in all subjects, but in linguistics she failed… arrange something easier for her. Failing means time and money wasted."*	Need to reduce barriers caused by difficult theoretical courses	High-failure courses disproportionately burden students with special needs; failure is viewed as both emotional and financial loss, indicating the need for alternative course pathways.
P-4	*"My son missed exams last semester… teachers said he did not appear in oral tests and presentations. He needs writing-based courses."*	Need for alternative assessment methods	Students with communication challenges struggle with oral, presentation-based evaluations; diversified assessment formats are required for equitable participation.
P-5	*During university admission, I preferred subjects where he could use his skills. He is good at drawing… I want him to find a subject that demands drawing that will keep him motivated."*	Need for interest-driven, motivation-sustaining courses	Parents believe motivation improves when coursework aligns with existing talents; the curriculum should offer creative pathways that maintain student engagement.