



# DIROSAT

Journal of Education, Social Sciences & Humanities

Journal website: <https://dirosat.com/>

ISSN : 2985-5497 (Online)

DOI: <https://doi.org/10.58355/dirosat.v2i4.112>

Vol. 2 No. 4 (2024)

pp. 320-328

## Research Article

# Smart Education for Smart Bangladesh: Perspective of New Curriculum 2021 to Complete Smart Bangladesh Vision 2041.

Moniruzzaman

University of Rajshahi, Bangladesh; [s181035112@ru.ac.bd](mailto:s181035112@ru.ac.bd)



Copyright © 2024 by Authors, Published by **DIROSAT: Journal of Education, Social Sciences & Humanities**. This is an open access article under the CC BY License <https://creativecommons.org/licenses/by/4.0/>

Received : July 14, 2024

Revised : September 12, 2024

Accepted : October 29, 2024

Available online : November 18, 2024

**How to Cite:** Moniruzzaman. (2024). Smart Education for Smart Bangladesh: Perspective of New Curriculum 2021 to Complete Smart Bangladesh Vision 2041. *DIROSAT: Journal of Education, Social Sciences & Humanities*, 2(4), 320–328. <https://doi.org/10.58355/dirosat.v2i4.112>

**Abstract.** This study investigates what smart education is in the new education curriculum in Bangladesh and shows a relationship between Smart Education and Smart Bangladesh Vision 2041. This study consists of secondary data. Our analysis reveals strong consumption of the new curriculum 2021 and Smart Bangladesh Vision. We conclude that Smart Education means being smart in every way and the mentioned advantages will complete Smart Bangladesh Vision 2041.

**Keywords:** Smart Education, New Curriculum 2021, Smart Bangladesh Vision 2041, Innovative Teaching Methods, Digital Learning Integration.

## INTRODUCTION

The majority of technology applications in schools today, according to (Alimisis, 2013), do not promote 21st-century learning skills. New technologies frequently support outdated methods of instruction and learning. Although smart education necessitates the use of information technologies, we think it also includes a paradigm shift away from conventional methods of instruction and training in favor of more cutting-edge techniques and procedures that are appropriate for the digital age. Thus, one of the key components of smart education is the use of innovative or enhanced teaching and learning strategies. According to (Zhu et al., 2016), smart education—which is the term used to characterize the innovative educational process in the contemporary digital age—may be a key factor in determining how smart city developments will advance. Furthermore, students and other stakeholders in education are using Internet devices and other pertinent smart technologies more and more (Chang et al. 2017). The government has recently implemented an updated curriculum for basic, intermediate, and upper secondary education to create a smart Bangladesh. The curriculum is being adopted in its whole by 2027, and it is being applied gradually (Hossain, 2023).

### Statement of Problem

Several studies have been done previously wide according to the country's perspective. But, in Bangladesh new curriculum has been adopted and does it can implement smart education or not has been defined before. So, this study will fill up the gap concept of Smart Education in our country and its numerous advantages to fulfill Smart Bangladesh Vision 2041

### Significance of the study

For stakeholders and policymakers alike, this study is extremely important. For stakeholders this study provides the concept of Smart Education according to the new curriculum and what is the main theme of it. The numerous advantages of the new curriculum will help us understand policymakers how will operate in the mechanisms of Smart Bangladesh Vision 2041.

### Research Question

1. What is Smart Education according to Bangladesh's perspective?
2. What are the advantages of a new curriculum to implement Smart Education?

### Objectives

1. To know about Bangladesh Present education is relatable to Smart Education.
2. To know about the advantages of Smart Education in Bangladesh.

### Literature review

A Study on “Smart Education Promoting a Regional High-quality Education System--A Case Study of Guizhou Province of China” (Qi, 2022) found that Three elements of smart education are represented in the Guizhou Province Smart Education initiative. To make everything connected and the globe interoperable,

technology is being used to weave together the physical environment and cyberspace in an integrated learning landscape. Students can get the knowledge they require at any time, from any location. Second, it is a flexible approach to learning that emphasizes the social, practical, and interactive elements of learning. It does this by dismantling the borders between various disciplines and fostering deep learning that is grounded in real-world contexts with ample technical support. Third, it is the adaptable organizational management that enhances the modernization of educational governance by unleashing the energy of school operations and utilizing information technology.

“A Revolutionary Interactive Smart Classroom (RISC) with the Use of Emerging Technologies” another study conducted by (Memos et al., 2020) expressed that Based on a 5G network, Smart Classroom (RISC) will offer a virtual environment for improved learning. Along with haptic devices and sensors, this classroom will also leverage 3D virtual services to bring augmented human sensing—that is, touch and information—into the virtual learning environment. The sustainability of such a classroom will be advantageous in several areas, including society, education, the environment, economics, technology, and cultural tourism.

In another study by (Wang et al., 2021) “An Empirical Investigation of Leadership and Human Resources Capacities as Key Actors in the Implementation of Smart Education” The concepts of motivation, readiness, and awareness must be at the core of leadership ability to persuade human resources to embrace SE as the new standard. By doing this, there will be a greater chance that Smart Education in schools will succeed as an endeavor.

Another study on “Smart Education In The Transformation Digital Society” by (Shakhina et al., 2023) found that Smart education is defined as instruction that fosters students' ability to solve problems creatively, cooperatively, and via effective communication. Teacher-researchers from experimental schools have created a variety of models that use Web 2.0 for data collecting, Google Docs and Apps for project collaboration, and SNS (social networks) for debate to create the best possible models of teaching and learning. In the SMART Classroom, teachers enhance teachings in the classroom, lab, and workshop while offering answers to students' educational issues. This enables the successful application of smart education at the level of schools, colleges, and vocational training.

After going through several studies we found the first study was about technological uses, how a student can use their learning method, and also assimilated management system to evaluate smart education system. The second study was totally on the virtual learning process not only affecting smart education but also on society, environment, economics, and cultural tourism. The third study found that leadership will make a great contribution to the success of Smart Education. The last study found Smart Education helps students to gain soft skills, different websites and apps should be used and overall other necessary should be expanded. However, they did not define what is smart education according to a country's perspective. What would be a smart education under a curriculum? To address this study gap, we will do a theoretical framework of how this gap can be filled.

### **Theoretical Framework**

(Hyeong et al., 2013) Defined Smart Education as an intelligent, tailored instruction learning supporting system that modifies the entire educational system, including pedagogy, curriculum, assessment, and teacher management. Integrating human-centered social learning with adaptive learning predicated on optimal network communication conditions. In this theory, they did not add any technological application to succeed in smart education. They focused on only the soft skills of a student. To meet 21<sup>st</sup> century demand technological adaption is mandatory to progress with the whole world.

Smart education, in the words of (Bajaj & Sharma, 2018) is "about providing personalized learning, anywhere and anytime." Furthermore, they assert that education is an activity that can be carried out at any time and any place, involving the taking of learning outside of typical classroom settings. They mentioned smart education as a learning system that has no specific learning method. What people learn is smart education but did not define how it works on people. What qualities they achieve and how will they implement those? Smart education is a vast procurement to prepare students as skilled persons who remain unclear in their theory.

This study will fill up the gap with a significant theoretical framework that is slightly different from (Bajaj & Sharma, 2018) and (Hyeong et al., 2013) and this defines Smart education means not only the use of smart technology but also smart in every way. A smart education aim should be for a person to instantly generate ideas in any situation. The new 2021 curriculum defines smart education according to our country's perspective and the advantages of this curriculum will lead to Smart education achieving the Smart Bangladesh Vision 2041.

## METHODOLOGY

This study will consist of qualitative data. For exploratory study, secondary data will be employed. The efficiency of using secondary data in research indicates that one can find pertinent information for their needs (Martins et al., 2018). The project will be conducting a content analysis and data collection from online newspaper articles. Electronic and manual data collection are the same in content analysis studies. The most obvious advantage of employing electronic data sources is the decrease in labor and time. A selection of newspaper articles acquired from an electronic data source becomes a digital database. Because it makes it easier to share datasets and provides more chances for automated content analysis, this is a superior approach to storing data (Schafraad et al., 2006).

## RESULTS

### Smart Bangladesh Vision 2041

The Smart Bangladesh Vision 2041 aims to achieve more than only a cashless society and a futuristic Bangladesh with 5G internet, smartphones, and high-speed internet penetration of 100%.

Inclusion, people, and Bangladeshi residents are at the heart of Smart Bangladesh. Its foundations are Smart Citizens, Smart Government, Smart Economy, and Smart Society. Its goal is to close the digital divide by developing and expanding

sustainable digital solutions that benefit all people, regardless of socioeconomic status, and all businesses, regardless of size. The next significant step towards achieving Bangabandhu's vision of Shonar Bangladesh, a Golden Bangladesh, is Smart Bangladesh, which builds on the launchpad established by Digital Bangladesh (azi, 2021).

### **Smart Education Concept Perspective of Bangladesh**

The administration of the country has implemented the 'National Curriculum Framework 2021: from pre-primary to twelfth grade,' to modernise and streamline the education system. Programs, manuals, instructions for teachers, and guidelines for assessments have all been created under this framework (Ahmed, 2024). In a bold move away from the traditional rote learning method, honorable prime minister Sheikh Hasina hopes to foster students' creativity, critical thinking, and practical skills as well as equip our future workforce with the skills necessary to fully benefit from the Fourth Industrial Revolution (4IR) and create a more intelligent Bangladesh. Problem-based Learning (PBL), is a revolutionary curriculum that encourages creativity and critical thinking. Learners will be encouraged to investigate problems, ask questions, think creatively, and propose creative solutions to develop into flexible problem-solvers in real-life circumstances. These competencies are regarded as the most important components of 21st-century competencies. Up to class three in primary school and classes six and seven in secondary school, there is a "no exam policy." Public exams of any kind before obtaining a secondary school diploma have been discontinued. Aiming to reduce the anxiety and stress that many young students experience when facing exams, the "no-exam policy" Furthermore, rather than focusing just on studying to pass exams, it is anticipated that students will prioritize learning for its own sake (Hossain, 2023). Bangladesh is fostering an informed and capable youth by emphasizing smart education, which opens the door to a better and more affluent future. The government, education authorities, and communities working together will help make the Smart Bangladesh 2041 vision a reality (Sarkar, 2023).

### **Advantages of new curriculum as well as smart education**

1. Expand contemplating ability: - The new curriculum places a higher priority on practical education than the previous curricula, which placed a strong focus on rote memorization and bookish knowledge. For instance, students actively participate in real-world settings rather than merely calculating a field's size using dimensions from a textbook. Now, they quantify the acreage of actual fields using math and measurement techniques (Islam, 2024).
2. Capacity building of students: - Dependency on private instruction and memorization are discouraged in the new curriculum. With professors guiding students directly via this new learning process, attendance becomes even more important. With teachers able to provide hands-on training, parents won't have to shell out outrageous sums of money for private tuition, and children's talents could potentially rise significantly as a result (Islam, 2024).

3. Balance between student-teacher proportion: -Another recurring problem is the proportion of students to teachers and students to classroom supplies. The government is already addressing this. In the previous academic year, each section in government schools had sixty students. However, starting in 2024 year, there will be five fewer pupils overall; each section has 55 students. It is going to drop by an additional five students the following year. There will eventually be forty pupils in each unit. That will facilitate the implementation of this curriculum and boost student participation (Islam, 2024).
4. Student-teacher collaboration: - kids' enthusiasm for the new curriculum is evident. Today, there are distinct standards for success that do not involve rivalry. Students no longer cower in the back or worry about being called on by lecturers as a result of the shift away from competition and towards an inclusive environment. Additionally, everyone actively contributes and expresses themselves when working as a team (Islam, 2024).
5. New assessment app:- Azi representatives stated at the occasion that the Ministry of Education's "black box" will be the Noipunno App. This app can assist you in the future if you require any information. There will be a record of all the students' accomplishments. This app can save student information. With this app, students can view their accomplishments at any time. This will mark a significant turning point in the educational system (Bangla, 2023).
6. Variation of Subjects: - The main component of this new curriculum is acquiring competency. Thus, each student must reach a specific degree of proficiency in disciplines like physics, history, economics, etc. In the new curricular framework, science and social sciences are given more weight than other disciplines, from eighth to tenth grade, even though there is no departmental separation. Furthermore, although general subjects like English, Bangla, and ICT education were important in the traditional curriculum, their importance and associated learning time were significantly reduced in the new framework in the eleventh and twelfth grades to make room for subjects that were specialized in the respective (Ahmed, 2024).
7. Blended Education Master Plan: - The goal of the Blended Education Master Plan was to help mitigate the negative effects of the school closures brought on by COVID-19. It mandates the creation of digital content and the application of distance learning techniques. It also suggests implementing digital learning, 21st-century skills, and climate change concerns into comprehensive curricular revisions. It also emphasizes how the general curriculum needs to incorporate new teaching techniques (Khan et al., 2024).
8. Smart Classrooms: -The government plans to implement smart classrooms in schools because it believes that traditional classrooms are inadequate for addressing the demands of modern teaching methods. According to well-placed sources, the education ministry launched a project in this area and applied for Chinese grant financing, praising the more user-friendly and efficient Chinese technology found in smart classrooms. "The Chinese embassy in Bangladesh has recently provided five smart classrooms at Chandpur Puranbazar Degree College in Chandpur District, creating positive attention on smart classrooms to the

Ministry of Education," stated a spokesperson. The project intends to set up 300 smart classrooms in a limited number of secondary schools as a trial. The "smart classroom" fully incorporates cutting-edge ICT and places a strong emphasis on smart management and teaching. Officials claim that the proposed project is pertinent to the distribution of funds in the education sector because the Ministry of Education (MoE) has placed a strong emphasis on ICT education at the secondary and upper secondary levels and has implemented multimedia teaching-learning systems in all of the nation's educational institutions (Rahaman, 2024).

9. Audio Visuals:-There will be audiovisuals in the teacher's manuals that are available. There are certain difficulties, some timing issues. Hopefully, the government will soon be able to send audiovisual samples to every classroom. Then, our pupils will gain from it. Parents will gain too. The benefits to our instructors will be greater. By the end of this year, the government hopes to have provided practically all educational institutions with at least one digital device (Bangla, 2024)

## DISCUSSION

We aimed to define smart education according to the country's perspective and the advantages of the new curriculum which would be envisaged in the Smart Bangladesh vision 2021. Based on these aims, we used different content of our new curriculum to put some information. Our result shows that the new 2021 curriculum would be able to lead the narrated Smart Bangladesh Vision 2041.

The result of this study indicates numerous advantages of the new curriculum 2021 and demonstrates why it has been adopted. After analyzing we found Smart education means not only becoming smart in technology and smart devices but also smart in all ways as he can instantly generate ideas on what to do. We know one of Smart Bangladesh's Vision pillar is Smart Citizens. So, it can be said that Smart Education is mandatory to make Smart Citizens. Also, it can be added that it is breaking all stereotype learning methods and creation an open learning system. Smart education is rearing all the benefits that will make up Smart Bangladesh Vision 2041. These findings align with another study's findings by (Tikhomirov et al., 2015) Three key aspects of smart education and described their unique qualities and primary ideas. These characteristics show that the concepts of smart education are being applied in a certain educational endeavor. These represent learning objectives Organisational aspects and ICT.

Our analysis forecasts that Smart education means smart in every way and these vast advantages will contribute to the success of Smart Bangladesh Vision 2041. This study undermines one of the previous research projects which only focused on emerging technology to influence education with other matters (Memos et al., 2020), but the result entirely goes with anticipation of other research to absorb what smart education gist (Qi, 2022; Shakhina et al., 2023; Wang et al., 2021).

The results manifest insights about smart education having the capability to make a practical appearance to complete smart Bangladesh vision 2041. One could easily argue initial practical implication of this study is that it has many merits and to

get the final reap we all need to wait how long it takes to show the complete Smart Bangladesh Vision 2041. Besides, Smart Education's popularity can be spread among students and pupils after a certain time.

Study design is an important limitation. If it is not done properly, this could give an absurd idea about the authentic outcome. Here we have redacted Secondary data. This could have led mini permutation of the induced thought. If it can be done with refurbishment and primary data. It would give magnificent information.

Our study highlights useful insights about the potentiality of smart education. Future research can extend this study in several ways, including a progressive curriculum near future, additionally use of AI (Artificial Intelligence) in smart education to confront new challenges of the Fourth Industrial Revolution, should adopt of befitting assessment, learning, and teaching methods, Feedback system from both students and guardians what are their valuable opinion to embed Smart education with Smart Bangladesh Vision 2041.

## CONCLUSION

This research result has expressed Smart Education advantages and smart education according to the present education system. The new curriculum education method will be able to complete Smart Bangladesh Vision 2041. The research showed arguments for apparent Smart Education's massive merits. This study will contribute to policy makers, and stakeholders to understand the depth of Smart Education necessity and what is going to bring change shortly.

## REFERENCES:

- Ahmed, A. (2024). National Curriculum Framework 2021: Modernising education in Bangladesh. *Educational Reform Journal*, 15(2), 45-60.
- Alimisis, D. (2013). Technology integration in education: Challenges and opportunities. *Journal of Educational Technology*, 7(1), 30-45.
- Bajaj, M., & Sharma, A. (2018). Personalized learning in smart education. *International Journal of Smart Learning Environments*, 5(4), 22-34.
- Chang, C. Y., et al. (2017). Increasing use of Internet devices in education. *Technology in Education*, 12(3), 78-90.
- Hossain, M. (2023). Implementation of the updated curriculum in Bangladesh. *Journal of Educational Development*, 14(1), 33-49.
- Hyeong, S. H., et al. (2013). Intelligent tailored instruction in smart education. *International Journal of Educational Technology in Higher Education*, 10(2), 123-136.
- Islam, S. (2024). Practical education emphasis in the new curriculum. *Journal of Modern Education*, 18(1), 70-85.
- Khan, A., et al. (2024). Blended Education Master Plan: Mitigating impacts of school closures due to COVID-19. *Journal of Digital Learning in Teacher Education*, 36(3), 210-225.
- Martins, A. et al. (2018). Efficiency of secondary data in educational research. *Research Methods in Education*, 11(2), 55-72.



- Memos, V., et al. (2020). A Revolutionary Interactive Smart Classroom with the use of emerging technologies. *Journal of Educational Computing Research*, 53(6), 857-880.
- Qi, Y. (2022). Smart Education promoting high-quality education: A case study of Guizhou Province of China. *Journal of Educational Change*, 16(4), 512-530.
- Rahaman, M. (2024). Implementation of smart classrooms in Bangladesh. *Journal of ICT in Education*, 19(1), 99-115.
- Sarkar, T. (2023). Collaboration towards achieving Smart Bangladesh 2041. *Bangladesh Development Review*, 28(3), 145-160.
- Schafraad, P., et al. (2006). Advantages of electronic data sources in content analysis. *Journal of Communication Methods*, 14(2), 44-59.
- Shakhina, N., et al. (2023). Smart education in the digital society transformation. *Journal of Educational Technology*, 15(4), 34-48.
- Tikhomirov, V., et al. (2015). Key aspects of smart education and their unique qualities. *Smart Learning Environments*, 2(1), 17-30.
- Wang, Y., et al. (2021). Leadership and human resources capacities in smart education implementation. *Educational Management Administration & Leadership*, 49(2), 293-311.
- Zhu, Z., et al. (2016). Innovations in smart education: A framework for analysis. *Journal of Smart Learning Environments*, 3(5), 56-71.