

## STUDY OF OVERALL WORKING OF THE CBSE SCHOOLS IN MARATHWADA TO DETERMINE THE POTENTIAL FOR SUSTAINABLE EDUCATION

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### Abstract:

India is a nation with a wide range of social structures, languages, and cultures. In the middle of all educational diversity, there exists a centralized system overseen by a single apex authority, the Central Board of Secondary Education (CBSE), which keeps all of its pupils in India uniform. A CBSE credential is accepted at all universities and academic institutions across the nation. Students can learn new skills and complete challenging coursework simultaneously thanks to the CBSE's educational framework. The CBSE syllabus is simpler compared to that offered by other boards since it adheres to a condensed format.

In order for a child to advance in their education, the CBSE offers the fundamental and broad knowledge needed. We are trying to investigate a number of topics in this research in order to determine which elements are critical to the enhancement of Marathwada's CBSE schools' effectiveness and, consequently, to raising public knowledge of sustainable teaching methods. We found that the infrastructure the school has access to, the qualified faculty and staff, the amenities offered to the students, the location, and the remuneration all play important roles in the overall effectiveness of the institution.

**Keywords:** sustainable, education, CBSE, infrastructure, trained staff.

**Introduction:** Nelson Mandela famously said in 2003 that "education is the most powerful weapon we can use to change the world." Education has enormous potential and the capacity to address the sustainability issues that face human civilization. It is a major tool for changing universalism, ideology, and morals. Education can provide students the confidence to adopt a close-knit sustainable lifestyle. Today, however, the world needs revolutionizing more than ever. Education is the cornerstone of sustainability, and without a commitment to it, we may never reach our goal.

Sustainable Development Education is a vital component of value edification and a lifetime learning activity. It increases the fractions of learning that are behavioral, social, affective, and cognitive. With the help of their knowledge, abilities, ethics, and beliefs, students who get Education for Sustainable Development (ESD) are entitled to make responsible decisions and take well-informed stands in favour of environmental ethics, economic viability, and social justice. Its notion of reforming and changing people is achieved through its notoriety as a vital enabler of all Sustainable Development Goals. As far as cultural diversity is concerned, ESD accepts people of all genders, age groups and generations to come.

The goal of sustainable education is to instill in children, educators, and communities the values and incentives to act for sustainability both now and in the future - in one's own life, in one's community, and globally.

Students who are taught about sustainability can acquire the information and abilities needed to make wise decisions about their personal lives, as well as the effects they have on the communities and the wider world.

The five primary themes of UNESCO's work on Education for Sustainable Development (ESD) comprise the essential elements of sustainable education.

- Progressing with policy.
- Changing the surroundings for learning.
- Developing educators' capabilities.
- Youth mobilization and empowerment.
- Quickening localized action.

Climate change, biodiversity, catastrophe risk reduction, water, the oceans, sustainable urbanization, and sustainable lifestyles are among the sustainability-related topics that UNESCO assists nations in developing and extending through ESD. UNESCO sets standards, offers guidance, and leads global advocacy for ESD [1].

The way that classrooms are now set up is changing. There is a difference in how technology is used for community development and for teaching in the classroom between the instructor and the students. Even though technology isn't used in schools right now, our community's technological advancement has caused a discernible change. The way that education is currently delivered in schools is outdated, centred on the teacher, and frequently has no bearing on the students. This state of affairs gradually vanished, making room for the student-centered method. [2,3].

In this paper we have literature review in section II, Section III elaborates experimental results, and conclusions are mentioned in Section IV.

**II Literature Review:** In their study article, Banga Chhokar, K. (2010) [4] examined noteworthy national advancements in higher education for sustainable development in India, comparing various educational approaches that are emerging in relation to education for sustainable development. It was found that India's education strategy incorporates several aspects of sustainable development. According to their statement, it is conceivably the only nation in which environmental education has been ordered by the highest court to be included in all formal educational programs, including a required university course. The absence of inter-disciplinary competency among staff and students, however, makes it difficult to properly apply this criterion. The author noted that while there are effective community-based efforts in India, these frequently have resource implications. Rather than official legislative measures, many efforts to create learning opportunities in this sector have come from the interests and goals of academics and students.

According to Devi et al. (2022) [5], a collection of fundamental values, such as democracy, human rights, peace, and sustainable development, as well as allied values that uphold these values, are necessary for sustainable development. Children need tasks that include planning ahead and then performing the acts themselves; simply imparting knowledge is insufficient. Along with the curriculum for developing values, the school environment should be supportive.

According to Nomita Punia and Shanti Balda (2016) [6], role overload, role ambiguity, role conflict, lack of control, unfavourable peer relationships, and demanding working conditions cause a moderate level of stress for most teachers employed by the Central Board of School Education (CBSE). Teachers and nurses experience higher levels of stress due to their heavy workloads and other assignment demands, according a study conducted on working professions (Chan et al., 1998) [7]. Bakhshi et al. [8] reported that excessive occupational stress was demonstrated by 40% of university instructors. The study employed the Occupational Stress Inventory to measure stress. It was discovered that work-related stress affected household chores Bakhshi et al. [8].

In order to examine the impact on students' performance, Patil M.P., et al. (2020) [9] examined the literature while accounting for three important variables: managerial practices, teaching pedagogy, and training. They have also reviewed books that are relevant to the contextual circumstances, such as CBSE schools. The impact of factors has been studied independently in studies. It was noted that several research concentrated on management strategies, while others addressed teaching methodology, and still others addressed teacher preparation.

While examining the effect variables for students' performance, a brief overview of the research indicates some focus on teacher-student connections, and expectancy-value theories. Limited research has been done on certain other significant contributing factors, such as teaching pedagogy, managerial techniques, and training.

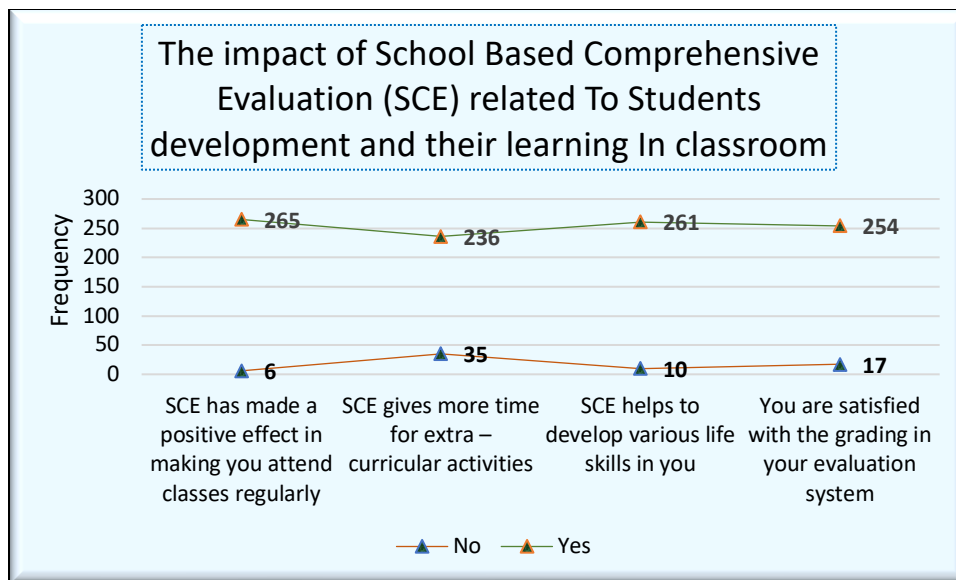
### III. Experimental Analysis:

This section covers the effects of School Based Comprehensive Evaluation (SCE), how schools execute CBSE policy and guidelines, and some of the hypotheses that are discussed in sections 3.1, 3.2, and 3.3.

1] We collect data from our questionnaire in order to investigate how School Based Comprehensive Evaluation (SCE) affects students' classroom learning and development.

The responses have been categorised and are displayed in the table below.

The impact of School Based Comprehensive Evaluation (SCE) related To Students development and their learning In classroom	No	%	Yes	%
SCE has made a positive effect in making you attend classes regularly	6	2.21	265	97.79
SCE gives more time for extra – curricular activities	35	12.92	236	87.08
<b>SCE helps to develop various life skills in you</b>	<b>10</b>	<b>3.69</b>	<b>261</b>	<b>96.31</b>
You are satisfied with the grading in your evaluation system	17	6.27	254	93.73



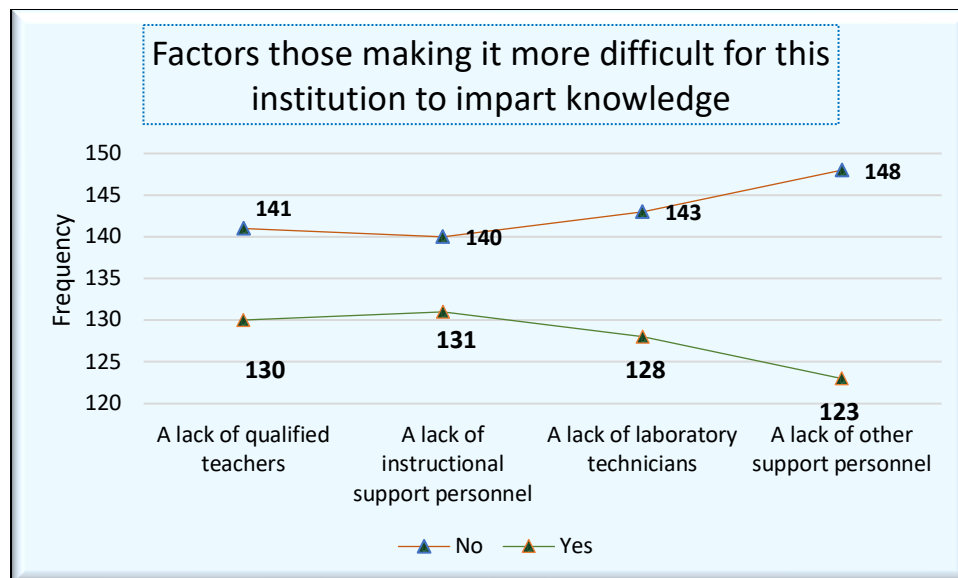
The percent of agreement is highest for ‘SCE has made a positive effect in making you attend classes regularly’; then for ‘SCE helps to develop various life skills in you’; then for ‘You are satisfied with the grading in your evaluation system’ & lastly for ‘SCE gives more time for extra – curricular activities’.

2] Study of implementation of CBSE guidelines/policies by school:

We collect data from our questionnaire concerning the obstacles to knowledge transfer that this institution faces.

The table below shows the categories into which the responses are divided.

Factors those making it more difficult for this institution to impart knowledge	No	%	Yes	%
A lack of qualified teachers	141	52.03	130	47.97
A lack of instructional support personnel	140	51.66	131	48.34
A lack of laboratory technicians	143	52.77	128	47.23
A lack of other support personnel	148	54.61	123	45.39



The percent of agreement (Response = No) is higher for each option than the percent of disagreement (Response = Yes).

The percent of disagreement is highest for ‘A lack of other support personnel’; then for ‘A lack of laboratory technicians’; then for ‘A lack of qualified teachers’ & lastly for ‘A lack of instructional support personnel’.

The percent of agreement is highest for ‘A lack of instructional support personnel’; then for ‘A lack of qualified teachers’; then for ‘A lack of laboratory technicians’ & lastly for ‘A lack of other support personnel’.

3] The following hypotheses have been investigated in order to examine the following: the relationship between the district's level of development and the academic achievement of its students; aspects pertaining to infrastructure, skilled personnel, and facilities provided to students; and the implementation of management's timely decisions and policies.

The test used is z test for proportions.

Test statistics:

$$Z = \frac{\hat{p} - p_0}{\sqrt{\frac{p_0(1 - p_0)}{n}}}$$

Here  $\hat{p}$  = sample proportion,  $p_0$  = hypothetical value = 75% = 0.75, n = sample size = 271

### 3.1 The school improvement depends on the implementation of management’s timely decisions and policies.

To test the hypotheses,

The null hypothesis,  $H_0$ :

The school improvement does not depend on the implementation of management's timely decisions and policies.

Vs.

The alternative hypothesis, Ha:

The school improvement depends on the implementation of management's timely decisions and policies.

Calculation table:

Parameter Under Study	Frequency	Proportion	Z Statistics	P value	Significance
Agreement to 'School improvement depends on the implementation of management's timely decisions and policies'					
Yes	260	0.96	7.96	0.0000	Significant

If  $p \text{ value} < 0.05$ , the level of significance; the alternative hypothesis is accepted.

The school improvement depends on the implementation of management's timely decisions and policies.

Hypothesis1 is accepted.

### **3.2 The majority sample CBSE schools in Marathwada lack infrastructure, trained staff and facilities to students as per norms of CBSE boards.**

To test the hypotheses,

The null hypothesis,  $H_0$ :

The majority sample CBSE schools in Marathwada do not lack infrastructure, trained staff and facilities to students as per norms of CBSE boards.

Vs.

The alternative hypothesis, Ha:

The majority sample CBSE schools in Marathwada lack infrastructure, trained staff and facilities to students as per norms of CBSE boards.

Calculation table:

Parameters Under Study	Frequency	Proportion	Z Statistics	P value	Significance
Teachers					
100 & Below	233	0.86	4.17	0.0000	Significant
Staff for educational support					
100 & Below	232	0.86	4.03	0.0000	Significant
School administrative or management personnel					
50 & Below	230	0.85	3.75	0.0001	Significant
School Infrastructure facilities and Utilities available on campus about gender sensitivity					

Does the school have separate toilet facilities for both genders? (Yes)	262	0.97	8.24	0.0000	Significant
Does the school provide adequate sports facilities to meet the requirements of both genders? (Yes)	256	0.94	7.40	0.0000	Significant
Does the school have a counsellor to address the growing up concerns of both genders and provide support? (Yes)	248	0.92	6.28	0.0000	Significant
Satisfaction with the available infrastructure, trained staff and facilities provided to students of school (1 = min and 5 = Max)					
Average to Max (3,4 & 5)	257	0.95	7.54	0.0000	Significant

If  $p$  value  $< 0.05$ , the level of significance; the alternative hypothesis is accepted.

Since  $p$  value is less than 0.05 for all 7 parameters; the alternative hypothesis can be accepted for all parameters.

For the all the parameters alternative hypothesis is being accepted.

The majority sample CBSE schools in Marathwada lack infrastructure, trained staff and facilities to students as per norms of CBSE boards.

Hypothesis2 is accepted.

### 3.3 There is a relationship between the extent of development of the district and performance of school students therein.

To test the hypotheses,

The null hypothesis,  $H_0$ :

There is no significant relationship between the extent of development of the district and performance of school students therein.

Vs.

The alternative hypothesis,  $H_a$ :

There is a significant relationship between the extent of development of the district and performance of school students therein.

Calculation table:

Parameter Under Study	Frequency	Proportion	Z Statistics	P value	Significance
There is a relationship between the extent of development of the district and performance of school students therein					

Yes	239	0.88	5.02	0.0000	Significant
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If  $p$  value  $< 0.05$ , the level of significance; the alternative hypothesis is accepted.

There is a relationship between the extent of development of the district and performance of school students therein.

Hypothesis3 is accepted.

#### IV. Conclusions:

Students who are taught about sustainability can acquire the information and abilities needed to make wise decisions about their personal lives, as well as the effects they have on the communities and the wider world. Energy, water, and waste management are just a few of the sectors where sustainability techniques can save costs and boost efficiency. The uneven distribution of environmental costs and benefits is one example of a social justice and environmental justice issue that sustainability education can assist students in understanding and addressing. All things considered; teaching sustainability can assist students in developing into responsible global citizens who are capable of making thoughtful decisions that take the long-term effects of their activities into account [10].

Concerning the potential for raising awareness about sustainability education, we have examined/studied the general operations of the CBSE schools in Marathwada. attempted to determine the efficacy of the school's application of the CBSE protocols.

Sports, social, cultural, and skill-based computer activities are among the activities we look at in the sample schools.

Our observations indicate that the total performance of the school is significantly influenced by its infrastructure, highly qualified instructors and staff, student facilities, location, and compensation.

#### References:

- [1] <https://www.unesco.org/en/education-sustainable-development/need-know>
- [2] Sarkar, Sukanta. "The role of information and communication technology (ICT) in higher education for the 21st century." *Science* 1.1 (2012): 30-41.
- [3] Bhattacharjee, Baishakhi, and Kamal Deb. "Role of ICT in 21st century's teacher education." *International Journal of Education and Information Studies* 6.1 (2016): 1-6.
- [4] Banga Chhokar, K. (2010). Higher education and curriculum innovation for sustainable development in India. *International Journal of Sustainability in Higher Education*, 11(2), 141-152.
- [5] Devi, S., Gupta, J., & Bakshi, R. (2022). Revisiting Indian Education: Towards Sustainable Curriculum Framework. *SUSTAINABLE SOCIETY: A NEW BEGINNING*, 130.
- [6] Punia N., & Balda, S. (2016). Occupational Stress among Teachers in Different Cultural Zones of Haryana. *Remarking*, 3, 56-59.
- [7] Chan, D. W. (1998). Stress, Coping Strategies, and Psychological Distress among Secondary School Teachers in Hong Kong. *American Educational Research Journal*, 35, 145-163. <http://dx.doi.org/10.3102/00028312035001145>



- [8] Bakhshi, R., Sudha, N., & Sandhu, P. (2008). Impact of Occupational Stress on Home Environment: An Analytical Study of Working Women of Ludhiana City. *Journal of Human Ecology*, 23, 231-235.
- [9] Patil, M. P., & Malkar, V. R. “Studying the Impact of Practices of Management, Teaching Pedagogy and Training of Teachers on Student’s Performance–A Literature Review. (2020)”.
- [10] <https://www.gesseducation.com/gess-talks/articles/key-reasons-why-schools-should-focus-on-teaching-sustainability#:~:text=Personal%20and%20societal%20well%2Dbeing,their%20communities%20and%20the%20world.>)