Choice-Based Credit System in Higher Education: A Comparative Analysis of Faculty Awareness Across Disciplines

iD **Dr. Om Shankar Gupta[1*]** iD **Dr. Yogendra Kumar Pandey[2]**

[1]Assistant Professor, Department of Journalism and Mass Communication, Chhatrapati Sahuji Maharaj University, Kanpur, UP, India.
[2]Associate Professor, Department of Journalism and Mass Communication, Chhatrapati Sahu Ji Maharaj University, Kanpur, UP, India.

The CBCS was viewed as a major reform in higher education because it was believed that by creating a national curriculum pattern, it would be able to address issues and difficulties faced by graduate and undergraduate students in higher education institutions. This was because the curriculum, assessment techniques, and other areas differed greatly between central, state, and private universities. CBCS provides the same type of curriculum, assessment techniques, and other areas that end differences between central, state, and private universities. In this paper, researchers surveyed the opinions of faculty members on their awareness of the CBCS at Chhatrapati Shahu Ji Maharaj University (CSJMU). In the above research paper, research was done by the researchers on 70 Faculty Members of CSJM University, Kanpur, Uttar Pradesh. Through this research work, a comparative study is done among the faculty members of the Arts and Science Stream of CSJM University regarding awareness of CBCS. For this purpose, researchers made a 5-point opinionnaire based on the Likert Scale regarding CBCS. The results obtained from this study using a T-test as a statistical technique show that there are no significant differences regarding CBCS awareness among the faculty members of the Arts and Science Stream.

Keywords: CBCS, Grading System, Elective Subjects, Art Stream, Science Stream

1. Introduction

The Traditional Evaluation System of Higher Education in India had numerous shortcomings **[Sonia Mahakur, Rajshree Baral, Venketswar (2019)]**. For instance, there is a poorer correlation between assessments and learning objectives, students have no access to information about their exams, and they are not involved in the assessment process. Higher education in India has not been particularly good over the past 20 years due to antiquated teaching-learning methods, strict curricula, and antiquated

evaluation procedures that fall well short of international standards **[Sonia Mahakur, Rajshree Baral, Venketswar (2019)]**. The Ministry of Education (MHRD) makes various provisions at various points in time to enhance the Indian educational system. In the 11th five-year plan for Graduate, Undergraduate, Diploma, and Certificate Programs, a Choice-Based Credit System (CBCS) was established in the same sequence to improve the quality of Higher Education by the University Grant Commission (UGC). The UGC-issued CBCS system placed more focus on using the Grading System than on Traditional Evaluation. To meet the demands of the modern world and ensure that Indian universities can compete with those of industrialised countries, the UGC (11th plan, March 2009). And later on the Association of Indian Universities (AIU) stressed the following recommendations:
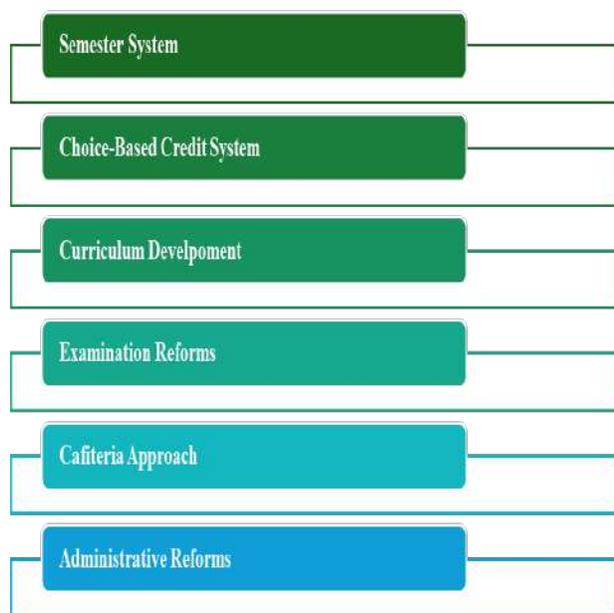
Fig. 1 Major Recommendation of CBCS

Unlike other traditional education systems, CBCS gives scholars the freedom to elect whatever subject they want to study. They also have enough liberty to choose a particular stream. Election sovereignty was granted to students. therefore, the preface of CBCS has led to an increase in tutoring practice inflexibility. This adaptable system serves as both an illustration and a means of generating excitement among the crowd. The representatives of the nation's universities have examined each of the forenamed reform recommendations and are considering putting them into practice to revise advanced education by transforming scholars from unresistant consumers of knowledge to active actors in the process of absorbing it. The nation's educational system is trying to change the paradigm from one that's schoolteacher-centric to one that's learner-centric by emphasising the comprehensive development of scholars' personalities to foster good citizenship. Top universities in India and beyond have espoused the grading system since it is allowed to be superior to the traditional marks system **(Waeza Tezien, 2017)**. In addition, several recommendations were made to raise the standard of education, such as allowing scholars to elect the courses they want to study. As a result, the traditional education system in India has given way to one that's pupil-centred. scholars in India's advanced education system now have the option to elect traditional subjects for their class rather than traditional bones, thanks to the implementation of the CBCS system.

The introduction of the Choice-Based Credit System (CBCS) in Indian higher education represents a critical shift from the traditional, rigid, marks-based evaluation framework toward a learner-centred and flexible academic structure. The CBCS aims to enhance interdisciplinary learning, promote mobility across institutions, and align Indian education with global standards **(Gupta, 2023; Aithal & Kumar, 2016)**. Despite its policy-level endorsement by the University Grants Commission (UGC), the actual implementation of CBCS has faced challenges related to faculty preparedness, infrastructural constraints, and variations in awareness across disciplines **(Gupta et al., 2024)**.

Faculty members play a decisive role in the success of CBCS, as they design and deliver curricula, assess students, and ensure the pedagogical transition from teacher-centric to learner-centric education **(Nehru, 2016)**. Hence, understanding their awareness and perceptions is essential to gauge institutional readiness. A comparative analysis between faculty of Arts and Science streams provides valuable insight into disciplinary differences in comprehension and adaptation toward CBCS, which can inform professional development programs and institutional strategies.

This study is significant because it examines the extent to which CBCS has been internalized by faculty across disciplines within

Chhatrapati Shahu Ji Maharaj University, Kanpur. By identifying the existing awareness levels, this research highlights the areas that require orientation, training, and administrative reform. The findings contribute to ongoing discussions on curriculum reform, policy implementation, and the alignment of Indian higher education with the objectives of the National Education Policy (NEP) 2020.

Review of Related Literature

Gupta, Suraj et al. (2024) conducted a study titled *Tracing challenges in the pathway of CBCS: A status study* to analyse the challenges in implementing the Choice Based Credit System (CBCS) and comparing the opinions of Arts and Science faculty members, as well as male and female faculty members, at CSJM University, Kanpur. The sample consisted of 140 faculty members selected through purposive and random sampling. A five-point Likert opinionnaire and both qualitative and quantitative approaches were used. The findings revealed no significant difference in CBCS opinions between Arts and Science faculty, but a significant difference was found between male and female faculty members, with males being more positive. The study suggested faculty training, counseling support, and institutional reforms to strengthen CBCS implementation.

Suman Kumari Katoch (2017), it can be observed that students are capable enough excelling in any career choice. The undergraduate students are provided sufficient provisions for skill practice so that they can learn in depth.

Zafar, Manjurekar, Kumar & Khanv (2014), can be observed that 87% of students prefer CBCS over NON CBCS. They also analyse the FFCS in Vellore Institute of Technology (VIT), and conclude that academic performance and learning experience of students are enhanced due to this model.

Suraj Gupta et al. (2024) synthesized existing research on the objectives, benefits, and obstacles of CBCS in India. Evidence from faculty surveys further highlights disciplinary as well as gender-based differences in perceptions. The review concludes that effective implementation of CBCS requires policy interventions, orientation programs, and capacity-building initiatives to align with global standards. The Choice-Based Credit System (CBCS) was introduced in Indian higher education to enhance flexibility, promote interdisciplinary learning, and improve academic quality. By allowing students to choose electives according to their interests, CBCS also facilitates institutional mobility and learner autonomy. However, its implementation has faced several challenges, including infrastructural limitations, inadequate faculty training, lack of awareness, and administrative constraints

Nehru (2016) discusses the prospects of CBCS in education and teacher education while comparing the education system of India and Vietnam to CBCS. Nehru further advocates CBCS for the professional growth of the students.

Gupta, Suraj and Singh, Vimal (2025) conducted a study titled *CBCS in Higher Education: An Impact Analysis* with the objective of evaluating the impact of the Choice-Based Credit System (CBCS) on higher education, particularly in terms of flexibility, student learning outcomes, and institutional challenges. The paper examined the structure and philosophy of CBCS, including its provisions for elective choice, interdisciplinary exposure, and grading patterns. The findings revealed that CBCS has improved academic mobility, promoted interdisciplinary learning, and provided students with greater academic freedom. However, it also highlighted challenges such as lack of adequate infrastructure, shortage of trained faculty, increased workload, and administrative complexities. The study suggested that effective implementation of CBCS requires systematic orientation programs, digital infrastructure support, and continuous faculty development initiatives to ensure its long-term sustainability and alignment with global standards.

According to **Naidu & Sreedevi (2016)**, India has lost its best students to other nations due to a lack of an interdisciplinary approach. By enabling students to learn in an interdisciplinary way, where teachers from many fields create a curriculum, instruct the class, and grade them, the CBCS will address this issue. Students have the freedom to select the courses they want to take, study at their own speed, enrol in more courses, and earn more credits than necessary. They contend that CBCS is essential to producing employable university graduates.

Suraj Gupta (2023) conducted a study on the *Choice-Based Credit System in India* to analyze its structure, components, advantages,

disadvantages, and impact on higher education. The paper reviewed various aspects of CBCS, including types of courses, credit and grading system, semester structure, and assessment methods. Findings revealed that CBCS promotes a shift from teacher-centered to student-centered education, offering flexibility, interdisciplinary learning, and mobility across institutions. However, the study also highlighted challenges such as teacher workload, inadequate infrastructure, difficulties in course selection by students, and the need for regular faculty training. Based on these results, Gupta suggested effective counselling for students, provision of resources, and capacity-building programs for faculty to ensure smooth implementation of CBCS **(Gupta, S. & Mishra, U., 2024)**.

To provide a strong foundation for their examination of the CBCS system, the researchers carried out a comprehensive review of a variety of pertinent literature formats. Based on the body of previous research on CBCS, the researchers got aid in charting a clear direction for their work. These areas have not seen many studies, as CBCS was only recently implemented in India.

Research Objective
➢ To compare the opinions of faculty members of the Arts and Science departments.

Research Hypothesis
1. H0: There is no significant difference in the opinions of faculty members between the Arts and Science departments.

Research Methodology
The researchers utilise a mixed approach since they gather and analyse both qualitative and quantitative data for this study. This study is of the descriptive type because the researchers' goals are to compare the opinions of faculty members in the science and arts streams of CSJM University regarding the Choice-Based Credit System (CBCS) and determine the impact of the system on the educational system across the university. To acquire faculty members' perspectives about the orientation of CBCS at various CSJM departments, the researchers employed the Survey Method in this study. The t-test was the statistical approach they utilised to analyse the data.

The primary data related to the various objectives of the study have been collected from a sample drawn from faculty members of different departments of CSJM University. Therefore, this study relates to the following two populations to which the results of the study will be applicable:
➢ **Population-1:** Faculty Members of the Arts, Humanities, and Social Science departments of CSJM University.
➢ **Population-2:** Faculty Members of Science departments of CSJM University.
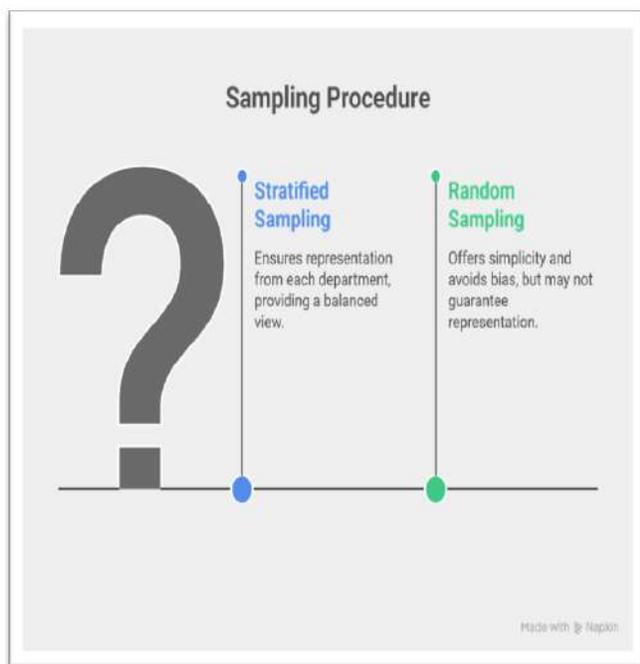
Sample:
In the study, the teachers' opinions on the Impact of CBCS on different aspects of the CBCS System and problems faced by faculty members on the implementation of it, 70 faculty members drawn from different departments constituted the sample of the study.

Distribution of Faculty Members by Department (members= 70)

35 Science Faculty — 35 Art Faculty
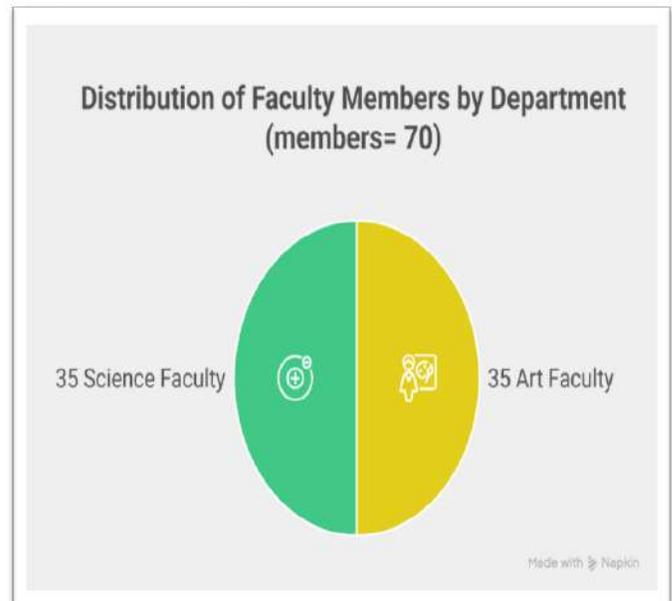
Sampling procedure:
To study the actual challenges to implementing the CBCS, a comparative study of opinions of faculty members of the Arts, Humanities, Social Science and Science departments. So there will be 2 types of sampling procedures used for the selection of faculty members and the College and university.

Sampling Procedure

Stratified Sampling
Ensures representation from each department, providing a balanced view.

Random Sampling
Offers simplicity and avoids bias, but may not guarantee representation.

Made with 🍃 Napkin

Research Tool

The researcher used a self-constructed five-point opinionnaire for the Faculty Members.

Scoring Key
Table No. 1: Scoring Key of Opinionnaire

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

1. The CBCS is aimed at ushering in a multi-disciplinary approach to curriculum.
2. CBCS aims to redefine the curriculum, keeping pace with liberalisation and globalisation in education.
3. The core course consists of compulsory subjects to be studied by a student to get the specified degree.
4. There is flexibility in creating the curriculum and assigning credits based on the course content and hours of teaching.
5. CBCS helps learners to realise their potential through the flexibility in offering courses.
6. The stress and anxiety of learners can be reduced through CBCS.
7. Work efficiency can be enhanced, and the development of professional skills can be made possible through CBCS.
8. CBCS stressed exercising the maximum use of ICT in classroom teaching.
9. Students have the opportunity to take extra credits beyond the minimum requirement to complete the course.
10. CBCS helps in enabling potential employers to assess the performance of students on a measurable and uniform scale.

Finding and Analysis:

The Researcher used not only a descriptive analysis but also an inferential analysis, which uses the researcher to draw inferences based on the table values and 't' values. The researcher used mean, standard deviation, and 't' t-tests.

Item
Table 2: Comparison of Art and Science Stream Students on the Test Variable

Stream	Mean	S.D.	df	t-value	p-value	Significance
Art Stream	40.79	4.44	68	2.03	> 0.05	Not Significant
Science Stream	41.29	4.70				

Df= 68, Significance level at 0.05 level

The above table 1.1 shows that the mean score of faculty members of the Arts Stream was 40.79 and the mean score of faculty members of the Science Stream was 41.29 with a standard deviation of 4.44 and 4.70, respectively. The calculated 't' value ('t'= 2.03) is approximately equal to the table value (2.024) at 0.05 with df=33. Hence, the null hypothesis "*There is no significant difference in the opinions of faculty members between the Arts and Science departments*" is accepted. therefore, it may be concluded that there is no significant difference among the opinions of

faculty members of the Arts and Science Stream regarding CBCS awareness.

The present study found no significant difference in the awareness levels of the Choice-Based Credit System (CBCS) among faculty members of the Arts and Science streams. This result aligns with several previous studies that have reported similar patterns of uniform awareness across disciplines, while a few contrasting studies have indicated notable variations in perception and implementation readiness.

Gupta, Deepak, Gore, Mishra, and Singh (2024) conducted a status study on the challenges in implementing CBCS at Chhatrapati Shahu Ji Maharaj University, Kanpur, and reported that faculty members across disciplines demonstrated comparable levels of understanding and acceptance of the system. Their findings highlighted that while infrastructural and administrative limitations persisted, disciplinary differences did not significantly influence faculty awareness or attitudes toward CBCS. Similarly, Kaur and Sharma (2016) observed that CBCS implementation led to similar pedagogical adaptations across Arts and Science faculties, suggesting that uniform institutional policies and faculty orientation programs tend to minimize disciplinary disparities.

Further supporting evidence was provided by Malik (2016), who found that CBCS awareness among faculty members in Jammu and Kashmir universities was largely homogeneous, with differences arising mainly due to institutional factors rather than subject domains. The study emphasised that awareness levels were linked more to administrative communication and faculty training than to academic discipline. Likewise, Zafar, Manjurekar, Kumar, and Khan (2014) noted that faculty across different departments in Vellore Institute of Technology shared a comparable understanding of CBCS objectives, particularly in relation to student flexibility and interdisciplinary learning.

Nehru (2016) also highlighted that the success of CBCS in professional and science education programs was comparatively higher due to the nature of curriculum design and evaluation practices in these fields. Conversely, Arts faculty members were more likely to express uncertainty regarding credit allocation and interdisciplinary course integration. These disciplinary variations were attributed to differences in curriculum frameworks, assessment methods, and pedagogical traditions.

Taken together, the literature reveals that while some institutions demonstrate parity in CBCS awareness across disciplines (Gupta et al., 2024; Kaur & Sharma, 2016; Malik, 2016), others reflect discipline-specific disparities in understanding and adaptation (Gupta & Singh, 2025; Naidu & Sreedevi, 2016). The present study's finding of no significant difference reinforces the notion that structured faculty sensitization and consistent institutional practices can equalize CBCS awareness among diverse academic groups.
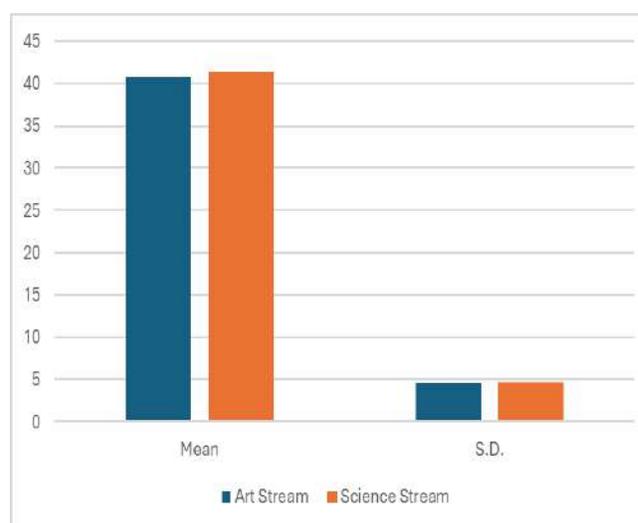
Discussion and Interpretation:

The nation's educational system is attempting to change the paradigm from one that is teacher-centric to one that is learner-centric by emphasising the comprehensive, all-around development of students' personalities in order to foster good citizenship (Rastogi et. al., 2025). To meet the demands of the modern world and ensure that Indian universities can compete with those of industrialised countries, the UGC (11th plan, March 2009). The implementation of CBC will take place at a minimum of six months, rather than a year, and each year will be divided into two categories. As a result, the pupils who were studying throughout the examination will be separated.

Students have the liberty to choose any subject they like to study, thanks to CBCS. They are also free enough to select a certain stream (Gupta et. al 2025). Voters were not given election

sovereignty, and the list of visas was established **(Gupta, S., 2024)**.

Following the implementation of the CBCS, students in India's higher education system now have the option to select non-traditional subjects for their curriculum instead of traditional ones. Top universities in India and beyond have adopted the grading system because it is thought to be superior to the traditional marks system. The CBCS system is largely responsible for the achievement of independence in the design of examination and evaluation procedures in the vicinity of universities **(Gupta, S., 2023)**. CBCS provides an orientation curriculum that allows students to choose an open elective. CBCS facilitates the establishment of equity and consistency within and between institutions. Robust monitoring, evaluation, and feedback systems are necessary under CBCS to ensure standards and quality in course delivery and assessment.

Conclusion

In this research paper, a comparative study is done among the faculty members of the Arts and Science Stream of CSJM University regarding the awareness of CBCS **(Gupta, S. & Singh, V., 2024)**. The results obtained from this study show that there is no significant difference in opinion on CBCS among the faculty members of the Arts and Science Stream. This kind of CBCS program fosters student growth by offering flexibility in the curriculum, which in turn increases students' productivity **(Rastogi et. al., 2025)**. The curriculum can be created with flexibility, and credits can be awarded according to the course material and teaching hours. Additionally, suitable guidelines are offered for the incorporation of vocational skills into CBCS. By matching curricula to industry standards and requirements, CBCS gives students the knowledge, abilities, and competencies they need. These days, a science student can become a poet or writer by studying literature, and a literature student can add science, economics, and literature classes to their curriculum **(Gupta, S. & Singh, V., 2024)**. The ability to add things to the dull curriculum that students choose has made learning more engaging for them, thanks to the CBCS system. The CBCS-introduced modification has turned out to be a turning point in the Indian educational system.

References

Carnegie Endowment for International Peace. (2023). The Modi–Biden dynamic for next steps in India–U.S. relations.

Aithal, P.S. & Kumar P M, Suresh. (2016). Analysis Of Choice Based Credit System In Higher Education. International Journal of Engineering Research and Modern Education (IJERME) ISSN (online): 2455 – 4200.

Amutha, J. (2012). Choice-based credit system: The need of the hour. University News, Vol.51, No. 08-15.

Chaubey, A. K. (2015). Choice-Based Credit System (CBCS) : A Better Choice in Education System. International Journal of Creative Research Thoughts,45-49.

Deuri, C. (2015). Attitude towards Choice Based Credit System of post-graduate level students in higher education: A study on Guwahati University. International 179 Journal of Interdisciplinary Research in Science Society and Culture (IJIRSSC). 1(2).

GOI. (2006). Report of National Knowledge Commission. New Delhi. Retrieved on 3rd. Nov. 2017

Gupta, S. (2023), Choice Based Credit System in India. International Journal for Research and Analytical Review, 10(2)

Gupta, S. (2023). Chapter: An era of artificial intelligence. New Trends and Innovative Practices in Educational Process (Vol. 1, pp. 41–46). World Book. ISBN: 978-81-962747-9-5.

Gupta, S. (2023). Choice-based credit system in India. International Journal of Research and Analytical Review, 7(4), 262–268.

Gupta, S. (2024). Conceptual terminology inherited in foundational literacy and numeracy (FLN). International Journal of Creative Research Thought, 12(2).

Gupta, S. (2024). Margin to mainstream: Connecting the unconnect. Diversity, Equity & Inclusion (Vol. 1, pp. 113-124). BlueRose Publication. ISBN: 978-93-6452-061-4.

Gupta, S., & Singh, V. (2024). Trajectories of collective intelligence. Collective Intelligence (Vol. 1, pp. 97- 107). BlueRose Publication. ISBN: 978-93-6452-971-6.

Gupta, S., & Singh, V. (2024). Future proofing education: The critical role of ICT in bridging the global educational gap. Role of ICT & Educational Technology in Higher Education (Vol. 2, pp. 187–198). Suryam Publication. ISBN: 978-81-972279-7-4.

Gupta, S., & Mishra, U. (2024). Economic value impact analysis of Hindi vs. English medium schools of Kanpur Nagar: A comparative study. Educational Metamorphosis, 3(1). \

Gupta, S., & Singh, V. (2024). Examine the NEP's initiatives for improving the quality of education in India. Navigating NEP 2020 Strategic Implementation and Future Challenges (pp. 153–162). Luit and Pine. ISBN: 978-81-9740-99-8.

Gupta, S., & Singh, V. (2024). The emotional lives of living beings: Understanding human feelings. Feel to Heal: The Transformative Power of Emotions (Vol. 1, pp. 20-34). Book River. ISBN: 978-9368847878

Gupta, S., & Singh, V. (2025). CBCS in higher education: An impact analysis. Omniscient: An International Multidisciplinary Peer-Reviewed Journal, 3(1), 43–53. https://www.omniscientmjprujournal.com

Gupta, S., Deepak, D., Gore, R., Mishra, B. N., & Singh, V. (2024). Tracing challenges in the pathway of CBCS: A status study. Library Progress International, 44(3), 10300–10309.

Gupta, S., Sharma, M., & Shukla, P. (2025). From happiness curriculum to skill development: A critical evaluation of Delhi's NEEEV programme. International Journal for Multidisciplinary Research, 7(3), 1–12. http://dx.doi.org/10.36948/ijfmr.2025.v07i03.47674

Gupta, S., Shukla, P., Shukla, S., Deepak, D., Gore, R., & Singh, V. (2025). Environmental concerns in the present scenario and future works of education. International Journal of Environmental Sciences, 11(7s), 697–709. https://theaspd.com/index.php/ijes/article/view/1274

Habib, A. D. (2015). CBCS: Masquerading choice! Education, Featured, Staff Picks. Youth Ki Awaaz. Retrieved on 17th

Hasan, M, Parvez, Dr. M, (2015), Choice-Based Credit System in India: Pros and Cons, Journal of Education and Practice (6),20-25.

Junor, S., & Usher, A. (2008). Student mobility and credit transfer: A national and global survey. Educational Policy Institute

Kaur, A. & Sharma, M. (2016). Academic curriculum reform of Indian higher education: Choice Based Credit System (CBCS). International Journal of Advanced Research in Education and Technology, 78-80.

Kelkar, A. S & Ravishankar, L. (2014), Choice Based Credit System: Boon or Bane. Current Science, 107(8), 1229-1230.

Kelkar, A.S & Ravishankar, L. (2014). Choice Based Credit System: boon or bane. Current Science, 1229- 1230.

Malik, M. A. (2016). Choice-based credit system: Concerns and challenges ahead. Srinagar. Greater Kashmir.

Rastogi, S., Gupta, S., Deepak, D., & Singh, V. (2025). Humanities, Spiritual Intelligence: A Systematic Review. International Journal of Arts and 3(1), 35–52. https://doi.org/10.61424/ijah.v3i1.297

Rastogi, S., Gupta, S., Deepak, D., Mishra, B. N., Gore, R., & Singh, V. (2025). A systematic literature review on anxiety among undergraduate students: Causes and coping strategies. Annals of Neurosciences, 1–16. https://doi.org/10.1177/09727531251366078

S. D. Dinesh (2023), FROM CURRICULUM FRAMEWORK TO TESTING PRACTICES: A CRITICAL EVALUATION OF FOUNDATION COURSES IN ENGLISH AT UG LEVEL UNDER UGC's Choice CREDIT SYSTEM (Registration No.: FOA/1498) [The Maharaja Sayajirao University Of Baroda, Vadodara]

Sharma, H.S. (2019), AN EVALUATION OF ENGLISH CURRICULUM OF UG COURSES UNDER CHOICE BASED CREDIT SYSTEM IN THE SELECTED UNIVERSITIES OF GUJARAT (REGISTRATION NO.: 13H0509) [KADI SARVA VISHWAVIDYALAYA, GANDHINAGAR, GUJARAT, INDIA.

T, Waeza. (2017). Choice-Based Credit System in India: A critical review of the

Vimal Singh, V., Om Shankar Gupta, O. S., Kumar, B., Gupta, S., Priya, P., & Shukla, S. (2025). News framing and student perceptions: A bibliometric analysis of global research trends. International Journal of Interdisciplinary Cultural Studies, 20(2), 66–88. https://doi.org/10.18848/p2qy7b42

Yadav, H. (2022), Choice-Based Credit System (CBCS) in Library and Information Science in Central Universities of India: A Curriculum Study. (Registration No. 07-GM-674) [MAHARSHI DAYANAND UNIVERSITY, ROHTAK (HARYANA)]