

Attitude of Undergraduate Students Towards the Implementation of the Choice-Based Credit System (CBCS) in Government Colleges of Arunachal Pradesh

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Abstract: The introduction of the Choice-Based Credit System (CBCS) marks a transformative shift in higher education, offering students the flexibility to choose their courses and progress at their own pace. This study examines the attitudes of undergraduate students in government colleges of Arunachal Pradesh towards the implementation of CBCS, focusing on variations across gender, ethnicity, and locality. Using a self-designed Likert-type scale, the research compares the perspectives of male and female students, APST (Tribal) and Non APST (Non tribal) students, and those from rural and urban areas. Results indicate that female, tribal, and rural students exhibit a more favorable attitude towards CBCS, with statistical analyses, including t-tests, confirming significant differences between these groups. The study highlights the need to address these disparities for the successful adoption of CBCS in the region and proposes recommendations to promote awareness and foster positive attitudes, particularly among male, non-tribal, and urban students. The conclusion discusses the implications for educators, administrators, and students in ensuring effective CBCS implementation in Arunachal Pradesh.

Keywords: Choice-Based Credit System, undergraduate students, gender difference, Tribal students vs Non Tribal students, rural vs. urban students, higher education, Arunachal Pradesh.

Introduction: Change is an essential driver of progress, and reforms like the Choice-Based Credit System (CBCS) in higher education represent a significant shift from traditional curriculum models to a more flexible, outcome-oriented framework as recommended by the University Grants Commission (UGC). The growing demands of technology, industry needs, student aspirations, and societal expectations necessitate an overhaul of existing educational structures to better serve students.

CBCS allows students to select from a variety of core, elective, and skill-based courses, enabling more personalized and interdisciplinary learning experiences. This system promotes critical thinking, creativity, and practical skills development, moving away from rote memorization and fostering independent thought. With a grading system that minimizes the emphasis on marks, CBCS facilitates a more comprehensive evaluation of student progress.

Despite its potential advantages, the implementation of CBCS in Arunachal Pradesh has raised concerns, particularly among students who are transitioning from the traditional semester system. This study investigates the attitudes of undergraduate students towards CBCS, exploring how the system affects their academic experiences and perceptions. Understanding these attitudes is crucial for ensuring a smooth and successful adoption of CBCS in the region. Previous studies by

Dutta and Dutta (2013) and Sumithaa et al. (2016) have highlighted the benefits of CBCS, including flexibility, interdisciplinary learning, and enhanced critical thinking. The findings of this research will provide valuable insights for educators, policymakers, and administrators seeking to refine CBCS implementation in Arunachal Pradesh.

Choice-Based Credit System: Overview

The CBCS is designed to shift from a teacher-centric to a student-centric model of education. In CBCS, students can choose from a variety of prescribed courses, including core, elective, minor, and skill-based courses, progressing at their own pace while earning credits based on course completion. The flexibility offered by CBCS aligns with global educational trends, allowing for greater mobility between institutions worldwide and recognizing the value of learning wherever it occurs.

Features of Choice Based Credit System:

The following are the features of the CBCS:

(1) Semesters: Each year is divided into two semesters and the assessment of students is done semester wise. A student progress is calculated on the basis of the courses taken rather than time taken to complete the course like three years for science, arts, commerce or four years for engineering etc. Each semester will have 15–18 weeks of academic training and assessment which is equal to 90 teaching days. There is flexibility in creating the curriculum and assigning credits based on the course content and hours of teaching.

(2) Credit system: Each course is assigned a certain credit. When the student passes that course, he earns the credits which are based on that course. If a student passes a single course in a semester, he does not have to repeat that course later. The students can earn credits according to his pace by taking any amount of time.

(3) Provision of Credit transfer: If for some reasons, a student cannot cope up with the study load or if he falls sick, he has the freedom to study fewer courses and earn fewer credits and then he can compensate this in the next semester. A student can also take the remaining credits in another college.

(4) Comprehensive continuous assessment: There is a continuous evaluation of the student not only by the teachers but also by the student himself through assignments, open book exams along with semester end examinations.

(5) Allotment of Grading: UGC has introduced a 10-point grading system in CBCS to allot grading as shown in the following table:

Allotment of Grading in CBCS as per UGC guidelines.

Sl.no	Letter Grade	Grade	Grade point
1	O	Outstanding	10
2	A+	Excellent	9
3	A	Very good	8
4	B+	Good	7
5	B	Above average	6
6	C	Average	5
7	P	Pass	4
8	F	Fail	0
9	Ab	Absent	0

(6) **Counting of Credits in Credit System** : One credit per semester is equal to one hour of teaching, which includes both lecture (L) or tutorial (T) or two hours of practical work/field work (P) per week. A study course can have only L component or only T or P component or combination of any two or all the three components. The total credits earned by a student for each semester is L+T+P.

(7) **In compliance with the global grading system**: All the major higher education institutions across the world are implementing this credit system. For instance, the European Credit Transfer System (ECTS) in Europe's universities, the 'National Qualifications Framework' in Australia, the Pan-Canadian Protocol on the Transferability of University Credits, The UK Credit Accumulation and Transfer System (CATS), and even in the US system, Japan system, etc. are based on credit system.

Objectives of the study

1. To study the attitude of undergraduate Boys and Girls towards implementation of CBCS system.
2. To compare the attitude of Tribal and Non-tribal undergraduate students towards implementation of CBCS system.
3. To compare the attitude of Rural and Urban undergraduate students towards implementation of CBCS System.
4. To work out the implications of the study for planning and designing appropriate educational ventures in order to obtain the desired goals.

Hypothesis of the study

The hypotheses of the study are as follows;

1. There is no significant difference in the attitude of undergraduate boys and girls towards implementation of CBCS system.
2. There is no significant difference in the attitude of Tribal and Non-tribal undergraduate students towards implementation of CBCS system.
3. There is no significant difference in the attitude of Rural and Urban undergraduate students towards implementation of CBCS System.

Materials and Methods

The present research study pertains to the normative survey method under the descriptive research. All the undergraduate students studying in BA, BSC and BCOM 1st semester in Indira Gandhi Govt College, Tezu, Arunachal Pradesh constitute the population of the study. The primary data was collected using a self developed Likert Type attitude Scale with 15 items covering various aspects of CBCS. Data were collected by the investigator by personally visiting the College from the randomly selected 200 male and female undergraduate students. The investigator used appropriate statistical techniques like Mean, Standard Deviation, SED and t test to analyze and interpret the data.

Results and Discussion:

I. Analysis of Attitude Scores of Undergraduate Boys and Girls towards implementation of CBCS:

Since one of the objectives of the present study was to study the differences in attitude among the undergraduate Boys and girls students towards implementation of CBCS, the researcher has used the 't' test by calculating the Mean, Standard Deviation, Standard Error of Difference (SED) between two independent means in the following table :

**TABLE NO. 1: SUMMARY OF ATTITUDE TOWARDS IMPLEMENTATION OF CBCS
MEAN SCORES, S.D., SED AND ‘T’ VALUE OF UNDERGRADUATE BOYS AND GIRL STUDENTS**

N = 200

Sl. No.	Gender	N	Mean	SD	SE _D	‘t’ value	Remarks
1	Undergraduate Girl students	100	60.6	4.36	0.662	5.135	Significant
2	Undergraduate Boy students	100	57.20	4.995			

Table No. – 1 reveals the fact that the attitude towards implementation of CBCS mean scores of undergraduate girls and boys are 60.6 and 57.20 and S.Ds. are 4.36 and 4.995 respectively., The calculated ‘t; value is 5.135 which is greater than the table value of 1.96 at 0.05 levels of significance and 2.58 at 0.01 level of significance. Thus, the hypothesis that there is no significant difference in the attitude of undergraduate boys and girls towards implementation of CBCS in government colleges of Arunachal Pradesh is rejected. It is found that undergraduate girl students have better attitude towards implementation of CBCS in comparison to the undergraduate boys. Hence, Gender is a determining variable for creating difference in attitude of undergraduate students.

II. Analysis of Attitude towards implementation of CBCS Scores of Tribal and Non tribal

Undergraduate Students:

To compare the differences in attitude towards implementation of CBCS scores of tribal and non-tribal undergraduate students, the investigator has used the ‘t’ test by calculating the Mean, S.D. and SED or Standard Error at Difference between two independent means.

TABLE NO. - 2 SUMMARY OF ATTITUDE TOWARDS IMPLEMENTATION OF CBCS MEAN SCORES,S.DS, SED AND ‘T’ VALUE OF TRIBAL AND NON-TRIBAL UNDERGRADUATE STUDENTS.

N = 200

Sl. No.	Race	N	Mean	SD	SE _D	‘t’ value	Remarks
1	Tribal Undergraduate students	140	60.86	3.605	0.820	5.109	Significant
2	Non-tribal undergraduate students	60	56.67	5.905			

Analysis of Table No. 2 reveals that the attitude towards implementation of CBCS mean scores of tribal and non-tribal undergraduate students are 60.86 and 56.67 and S.D.s are 3.605 and 5.905 respectively. The computed ‘t’ value of 5.109 is greater than the table value of ‘t’ at 0.05 level of significance (1.96) and at 0.01 levels of significance(2.58). Thus, the hypothesis that there is no significant difference in the attitude towards implementation of CBCS among

tribal and non-tribal undergraduate students gets rejected. Hence, it is estimated that tribal undergraduate students have better attitude towards implementation of CBCS than the non-tribal undergraduate students. However, ethnic background is a determining variable in creating difference in attitude among the undergraduate students. .

III. Analysis of Attitude of Rural and Urban undergraduate students towards implementation of CBCS:

To find out the differences in the attitude of rural and urban undergraduate students towards implementation of CBCS, the investigator has used the ‘t’ test by calculating the Mean, Standard deviation, Standard Error of Difference (SED) between two independent means in the following tables :

TABLE NO. - 3 SUMMARY OF ATTITUDE TOWARDS IMPLEMENTATION OF CBCS MEAN SCORES, SD, SED AND ‘T’ VALUE OF RURAL AND URBAN UNDERGRADUATE STUDENTS

N = 200

Sl. No.	Locality	N	Mean	SD	SE _D	‘t’ value	Remarks
1	Rural undergraduate students	100	60.40	5.04	0.643	5.287	Significant
2	Urban undergraduate students	100	57.00	4.00			

Analysis of Table No. – 3 makes it clear that the attitude towards implementation of CBCS mean scores of rural and urban undergraduate students are 60.40 and 57.00 and S.Ds are

5.04 and 4.00 respectively. The computed 't' value is 5.287 which is greater than the table value of 't' at 0.05 level (1.96) and 0.01 level (2.58). Thus, the hypothesis that there is no significant difference in the attitude towards implementation of rural and urban undergraduate students is rejected. Hence, it is found that rural undergraduate students have better attitude towards implementation of CBCS in comparison to the urban undergraduate students. However, locality is a determining variable in creating difference in attitude towards implementation of CBCS among undergraduate students.

Major findings of the study

The following are the major findings of the study:

- Undergraduate girl students have better attitude towards implementation of CBCS in comparison to the undergraduate boys. Hence, Gender is a determining variable for creating difference in attitude of undergraduate students.
- Tribal undergraduate students have better attitude towards implementation of CBCS than the non-tribal undergraduate students. However, ethnic background is a determining variable in creating difference in attitude among the undergraduate students.
- Rural undergraduate students have better attitude towards implementation of CBCS in comparison to the urban undergraduate students. However, locality is a determining variable in creating difference in attitude towards implementation of CBCS among undergraduate students.

Recommendations of the study:

On the basis of the findings of the present study, the following recommendations are made for developing positive attitude towards implementation of CBCS among the undergraduate students.

- It was found that undergraduate girl students have better attitude towards implementation of CBCS in comparison to the undergraduate boys. Hence, it is recommended that the teachers should try to develop better attitude towards implementation of CBCS among the undergraduate boys by organizing special awareness programmes on CBCS in the Govt Colleges, organizing seminars, webinars workshops on CBCS, by providing proper guidance and advice related to them, and by explaining about the advantages of Choice Based Credit System.
- It was found that tribal undergraduate students have better attitude towards implementation of CBCS than the non tribal undergraduate students. Hence it is recommended that non-tribal undergraduate students should develop positive attitude towards the implementation of CBCS in the college. They should be provided special counselling and guidance with regard to the advantages and implications of CBCS. Teachers and parents should give personal guidance wherever feasible.
- It was found that rural undergraduate students have better attitude towards implementation of CBCS in comparison to the urban undergraduate students. Hence, it is recommended that the urban undergraduate students should be motivated to develop positive attitude towards implementation of CBCS in the Govt College of Arunachal Pradesh. Special orientation programmes may also be conducted by the institutions. Moreover, mass media can also be used to disseminate information pertaining to implementation of CBCS.

Educational Implications

By considering the findings and recommendations of the study, the investigator felt it essential to highlight the educational implications of the study for the **Undergraduate students, College teachers and principals,**

The study has implications for the **Undergraduate students** that they should realize the importance of studies in their life, develop positive attitude towards CBCS, develop healthy study habits both at home and at the college, take the advice and guidance of the teachers for solving academic problems, maintain good relationship with their friends, clarify the doubts in various subjects by interacting with the teachers, develop better level of achievement motivation,

try to devote more time to their studies at home and at school regularly, give up the habit of engaging in unproductive activities ,try to complete their home works regularly, develop better educational and occupational aspiration, develop the habit of reading newspapers and magazines and try to take part in various curricular, co-curricular and extra- curricular activities of the college.

The study has implications for the **College teachers** that they should adopt better educational inputs, device suitable instructional methods and strategies, assist the students in their studies whenever needed specially under the CBCS curriculum, develop good skills of study habit at college, foster positive attitude towards studies, enhance the spirit self - confidence and achievement motivation, use innovative pedagogy for clarifying various doubts and learning difficulties of the students, conduct action research projects on ethnic groups and their cultural, economic, social, political and geographical problems, provide remedial instruction to the students, extend the service of providing educational, vocational and personal guidance and counseling to the college students, stress on development of reading skills, mobilise the community , conduct periodic assessment of students performance, assign home works and check them regularly, provide individual attention to the students, develop and use teaching learning materials, follow reference books, attend orientation and other in-service programmes, organize co-curricular and extra-curricular activities and co-operate the principal in every work of the college related to the students.

The study has implications for the **principals** that they should inspire the teachers for undertaking innovative projects , advice the students to put hard labour in their studies, monitor academic achievement of the students, assess the instructional inputs provided by teachers, coordinate the seminars, debates, symposium etc, discuss the educational problems of the undergraduate students with higher authorities, organize remedial and tutorial classes, maintain healthy organizational climate and communicate the higher authorities regarding the trends and developments taking place in the respective colleges.

Conclusion

In conclusion it can be said that CBCS is an examination reform in India. The UGC and other institutions of higher and technical education have already initiated measures to bring equity, efficiency and excellence in the Higher Education System of India. The basic purpose is to expand academic quality in all aspects, right from the curriculum to the learning-teaching process to examination and evaluation systems. However, multiple methods are followed by different universities across the country in examination, evaluation and grading system. Considering this diversity, the implementation of the choice based credit system seems to be qualitatively superior although it is not to be considered as ultimate. For the colleges of Arunachal Pradesh students have not prepared themselves to accommodate the same. However, it will be beneficial to them in the long run.

Authors' contribution

The manuscript has been the original work of Nandita Debnath. Debnath participated in conceptualization, methodology, data curation, formal analysis, writing, reviewing and editing

Conflict of interest

The author declares that there is no conflict of interest with respect to research, authorships and publications of the case.

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Appendix-1

ATTITUDE SCALE TO MEASURE ATTITUDE OF UNDERGRADUATE STUDENTS TOWARDS IMPLEMENTATION OF CHOICE BASED CREDIT SYSTEM IN GOVT COLLEGES OF ARUNACHAL PRADESH

Name of the Student : APST/NON-APST :
Name of the College: Gender: Male/Female
Course/Semester: Locality: Rural/Urban

INSTRUCTIONS

Dear students ,

This is a five point Likert type Attitude scale which contains 15 items with regard to one's likingness and dislikingness towards implementation of Choice Based Credit System in the Government Colleges of Arunachal Pradesh. The items do not have any correct or incorrect answer. There are five options like SA, A, U, D, and SD. You are requested to encircle any one of the options against each of the items. You are requested to go through all the items and provide your response to each item freely and frankly without consulting with any of your classmates. Hence, the information provided by you will be utilized for research purpose only and will be kept strict confidential.

Investigator

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SLNO.	ITEMS	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	CBCS is an important reform measure taken by UGC in higher Education	SA	A	U	D	SD
2	Introduction of CBCS is a burden on the students.	SA	A	U	D	SD
3	CBCS enables the students to choose subjects according to their academic interests.	SA	A	U	D	SD
4	CBCS has brought equality and parity in evaluation and assessment system.	SA	A	U	D	SD
5	CBCS creates confusion and dilemma in opting for different subjects.	SA	A	U	D	SD
6	The grading pattern under the CBCS is scientific, lucid and satisfactory.	SA	A	U	D	SD
7	CBCS helps students in smooth migration from state level institutions to national or international level.	SA	A	U	D	SD
8	CBCS is less effective for slow learners and underachievers.	SA	A	U	D	SD
9	CBCS promotes diversification of courses and language learning.	SA	A	U	D	SD
10	There is no uniformity in the syllabus of different universities following CBCS pattern.	SA	A	U	D	SD
11	CBCS allows students to develop greater skills in	SA	A	U	D	SD

	undertaking Projects and Dissertations.					
12	CBCS is a student centric examination reform.	SA	A	U	D	SD
13	CBCS pattern provides greater depth of courses in the curriculum.	SA	A	U	D	SD
14	CBCS does not allow the students the freedom to choose their subjects.	SA	A	U	D	SD
15	Introduction of CBCS pattern needs good infrastructure.	SA	A	U	D	SD