

Choice Based Credit System (CBCS) : New Trend for Assessment

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Abstract

For decades our approach to assessment has been shaped by notions of the physical place and time of assessment activities, leading to practices that require students to complete assessment activities in certain places at certain times. For the most part, these were summative assessments in the form of exams. In recent years there has been an increasing focus on the importance of formative assessment, that is, the assessment of the learning that is taking place through the process of learning, not simply what is produced at the end of it. These approaches are sometimes referred to as assessment as learning – focusing on progressions in learning, and identification of next steps, rather than simply taking a summative view of the exam or assignment at the end of a period of study. Such an approach is gaining support internationally, with a number of initiations such as semester system, open book examination, Grading, and choice based credit system. In this regard, The University Grant Commission (UGC), India, has brought out guidelines for the introduction of the choice based credit (CBCS) in higher education institutions for graduate, post-graduate, diploma and certificate Courses. The present paper dealt with the understanding of Choice Based Credit System, its advantages over the tradition evaluation system and plans for its implementation.

Introduction:

Assessment plays a significant part of our education system — at the end of the day, all learners have a vested interest in knowing how successful they've been at learning — and what the measures of their success are. None of us would go to the doctor or visit the hospital with an ailment without an expectation that we'll receive some sort of treatment to make us well. So too with education — assessment is the way we have of making the learning visible, and of applying some measure to the success of the learner in demonstrating what he or she has learned.

Historically the focus on assessment has been summative — applying measures of how successfully the learner can demonstrate what he or she has acquired through the learning process, usually in the form of a final examination, but sometimes in the presentation of a portfolio, submitted thesis or essay, or completion of a practical task. There is a saying in education that “the pedagogy of assessment drives the pedagogy of instruction”, meaning that the focus on what is being assessed will often drive what and how we teach. We see evidence of this in the way many teachers and schools approach the challenge of assessing students against national standards or NCEA: instead of assessment being the means of measuring student success, it becomes what shapes the curriculum and the way it is taught.

The difference between old and new system of evaluation can be summarized as follows :

Old system of Evaluation:

- Evaluating achievement of learners by a terminal written examinations.
- Evaluating only cognitive development.
- Affective and Psychomotor domain almost completely neglected.
- Evaluating memory of the learners.
- Give more importance to summative evaluation.

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- Marking system used for evaluation.
- Not continuous.
- Not comprehensive.

New system of Evaluation:

- National Education policy (1986) stressed the need for making evaluation continuous and comprehensive.
- Give stress to formative and summative evaluation at the same time.
- Evaluate all aspect of development through different methods.
- Evaluation should fulfill the function of formative evaluation leading to immediate feedback, knowledge of result, diagnosis and remediation.
- Summative evaluation should fulfill the function like gradation and placement.
- Evaluation should be continuous and comprehensive
- Grading system, semester system, open book examination and choice based credit system are introduced in evaluation.

The current higher education curriculum does not impart the necessary skills that would make the students employable adequately. There is a lack of Interdisciplinary approach as well as there is a very little scope for value based courses to be taught. In addition the evaluation methods are largely based on memory recall processes. In addition the students don't learn to think and analyze on their own. Also, the system is not effective enough in meeting/ empowering students to think or matters/issues independently. The 11th five year plan of India as well as the National Knowledge Commission has recommended revamping of higher education through academic and administrative reforms. The UGC particular in its 11th plan, has emphasized on such reforms and this was followed by the recommendations were made on similar lines by the Association of Indian Universities. (AIU)

Taking into consideration the new systems of evaluations most of Boards and University are adopting these trends. With a vision to evolve a higher education system that is suitability blended with provision for knowledge values and skill practice where every student learns in without sacrificing his/her creativity, the University Grant Commission introduces Choice Based Credit System in Indian Universities.

Choice Based Credit System (CBCS):

Currently an important concern which is strongly mentioned in recent times by the **University Grants Commission (UGC)**, the **National Assessment and Accreditation Council (NAAC)**, is the need to develop a Choice-Based Credit System (CBCS) in tune with global trends and the adoption of a proper grading system for measuring performance of the learner.

Recommendation of the UGC in its *Action Plan for Academic and Administrative Reforms stated-*

“..... *Curricular flexibility and learners' mobility* is an issue that warrants our urgent attention. These can be addressed by introducing credit based courses and credit accumulation. In order to provide with some degree of flexibility to learners, we need to provide for course duration in terms of credit hours and also a minimum as well as a maximum permissible span of time in which a course can be completed by a learner...Choice-Based Credit System (CBCS) imminently fits into the emerging socioeconomic milieu, and could effectively respond to the educational and occupational aspirations of the upcoming generations. In view of this, institutions of higher education in India would do well to invest thought and resources into introducing CBCS. Aided by modern communication and information technology, CBCS has a

high probability to be operational efficiently and effectively — elevating learners, institutions and higher education system in the country to newer heights...”.

University Grants Commission has come up with the Choice Based Credit System (CBCS) programme in which the students have a choice to choose from the prescribed courses, which are referred as core, elective or minor or soft skill courses and they can learn at their own pace and the entire assessment is graded-based on a credit system. The basic idea is to look into the needs of the students so as to keep up-to-date with development of higher education in India and abroad. CBCS aims to redefine the curriculum keeping pace with the liberalization and globalization in education. CBCS allows students an easy mode of mobility to various educational institutions spread across the world along with the facility of transfer of credits earned by students.

All the major higher education institutions across the world are implementing a system of credits. For instance, we have the European Credit Transfer System (ECTS) in Europe’s universities, the ‘National Qualifications Framework’ in Australia. There is the Pan-Canadian Protocol on the Transferability of University Credits. In the UK, we have the Credit Accumulation and Transfer System (CATS). Even the systems operating in the US, Japan, etc. are based on credit system.

Objectives of CBCS :

The Choice Based Credit System is developed with following objectives:

1. To introduce Choice Based Credit System (CBCS) at Undergraduate level.
2. Development of Curricula that would facilitate student centric learning.
3. Examination Reforms in Higher Education.
4. Administrative Reforms in Higher Education.

All of the above objectives have to be realized with an aim to transform teaching learning processes in academics- a transformation where students change from being passive listeners of knowledge to becoming active participants of the knowledge imbibing process. Thus the ultimate goal is to bring reforms in higher education so that students develop thinking as well as analytical ability, he/she gets equipped with necessary skills ultimately making him/her suitable for an employment and to integrate values.

Features of CBCS:

- This is a uniform CBCS for all central and state and other recognized universities.
- There are three main courses: Core, Elective and Foundation.
- There are also non-credit courses available which will be assessed as ‘Satisfactory’ or ‘Unsatisfactory’. This is not included in the computation of SGPA/CGPA.
- All the three main courses will be evaluated and accessed to provide for an effective and balanced result.

Basic Elements of CBCS:

- **Semesters:** The assessment is done semester wise. A student progresses on the basis of the courses taken rather than time like three years for science, arts, commerce or four years for engineering etc. Each semester will have 15–18 weeks of academic work 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.
- **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.

• **Credit transfer:** If for some reasons, he cannot cope with the study load or if he falls sick, he has the freedom to study fewer courses and earn fewer credits and he can compensate this in the next semester.

• **Comprehensive continuous assessment:** There is a continuous evaluation of the student not only by the teachers but also by the student himself.

Strategy For CBCS:

1. To introduce Semester system
2. To develop a structured programme for CBCS that would
 - Enable students to have a flexible learning within a structured model
 - Enable students to have wider choices outside their discipline of their study
 - Enable students to have an exposure to real life experience by participation in internships as well as vocational training
 - Enable students to have facility of Credit transfer across the country.
3. To design the curriculum with sufficient/appropriate/adequate provision for Value oriented courses, Interdisciplinary courses and Vocational courses. Each course shall have a clearly defined course objective and course outcome.
4. Teacher training and capacity building
5. Revamping of learning processes by changing in teaching pedagogy by
 - Use of ICT
 - Use of Resources
 - Use of ALM
 - Use of computer laboratories to be set up across the state as learning
 - Introduction and Implementation of concept of Teacher fellow(TF) and Course Assistant(CA)
6. Content preparation as per the curriculum. This will include both textual content as well as E content.
7. Preparation of Question Banks
8. To create facilities for On Demand On Line Examination (ODOLE)

Methodology and Plan of Action for CBCS:

The methodology to introduce CBCS will follow the sequence as:

1. To develop a structure having enough room for flexibility for horizontal as well as vertical migration of students
2. To design the curriculum with appropriate course labels.
3. Preparation of content for each course
4. Teacher training and capacity building
5. Class room revamping
6. Preparation of Question bank

Steps for Implementation of CBCS

For implementing the CBCS, institutions of higher education would need to undertake the following set of rigorous elaborate steps:

1. Review of curricular contents (study papers, term papers, assignment, workshop-assignment, experiments etc.) of certificate, diploma, under-graduate, post-graduate, M. Phil. and Ph.D. Courses.

2. For the sake of clarity of faculty, students and examiners, all the curricular contents are specified, and sub-divided into units and, if need be, into sub-units, which are subsequently assigned numerical values and termed 'credits'.
3. Faculty of the concerned 'Department' deliberates and decides on (a) core credits, and (b) elective or optional credits for different levels of academic Courses.
4. Departmental faculty evaluates and decides on the relative weightage of the core and elective credits. Decision on the 'total' credits to be earned (or completed) by students undergoing certificate, diploma, under-graduate, post-graduate, M. Phil. or Ph.D. Courses.
5. Generally core credits would be unique to the Course and earning core credits would be essential for the completion of the Course and eventually certification.
6. On the other hand, elective credits are likely to overlap with other Courses or disciplines of study (for example, languages, statistics computer application etc.).
7. Under this system, Students enrolled for a particular Course would be free to opt and earn elective credits prescribed under the course, or under other courses within the department, faculty, and university or even outside recognized university/ institution of higher education.
8. Creating centers for ODOLE which would facilitate E learning.

Credit, Grade, SGPA & CGPA:

Credit:

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.

Grade:

Student shall be graded in each course with 8 different grades in a scale of 10. Based on marks obtained in aggregate in each paper of UG/PG degree course following grade and grade points shall be awarded. Student(s) failing to obtain minimum grade point < 4 in individual module/paper will be declared as unsuccessful irrespective of SGPA/CGPA value to qualify in each semester. Students will be awarded SGPA/CGPA values considering both honours and extra-departmental courses in bachelor's degree course.

UGC has introduced a 10-point grading system as follows:

Details	Grade	Grade Point
Outstanding	O	10
Excellence	A+	9
Very Good	A	8
Good	B+	7
Above Average	B	6
Average	C	5
Pass	P	4
Fail	F	0
Absent	Ab	0

SGPA:

There will be a Semester Grade Points Average (SGPA) calculated for each semester on the basis of grades obtained in that semester. The SGPA for the i^{th} semester is calculated as:

$$SGPA_i = \frac{\sum_{i=1}^n C_i G_i}{\sum_{i=1}^n C_i}$$

Where n is the number of courses in the i^{th} semester, G_i denotes the numerical value of the grade obtained in the i^{th} course of the semester, C_i denotes the number of credit for the i^{th} course of the semester. For example, consider the numerical grade and credit of a student given in the table below:

Course	Course I	Course II	Course III	Course IV	Course V	Course VI	Course VII
Credit	2	2	4	2	2	2	2
Numerical Grade	7	8	5	7	6	8	8

SGPA_i for the i^{th} Semester is calculated as

$$SGPA_i = \frac{7 \times 2 + 8 \times 2 + 5 \times 4 + 7 \times 2 + 6 \times 2 + 8 \times 2 + 8 \times 2}{2 + 2 + 4 + 2 + 2 + 2 + 2} = \frac{108}{16} = 6.75$$

CGPA:

Cumulative Grade Point Average (CGPA) for total semesters ‘k’ of the course is given as:

$$CGPA_k = \frac{\sum_{i=1}^k (SGPA_i \times C_i)}{\sum_{i=1}^k C_i}$$

where C_i is the total number of credits in the i^{th} Semester.

For example, consider the SGPA's obtained by a student in four semesters along with total credit in each semester is given as follows:

Semester	First Semester	Second Semester	Third Semester	Fourth Semester
SGPA	6.75	6	8.12	7.62
Total Credit	16	20	18	16

$$CGPA = \frac{6.75 \times 16 + 6 \times 20 + 8.12 \times 18 + 7.62 \times 16}{16 + 20 + 18 + 16} = \frac{496.08}{70} = 7.086$$

Advantages of Choice Based Credit System:

- **Respects ‘Student Autonomy’.** In this system students have autonomy with respect to following aspects :
 - i. Represents a shift in focus from teaching based to learning education since the workload is based on the investment of time in learning.

- ii. The CBCS offers a ‘cafeteria’ approach in which the students can choose courses of their own choice. The credit system allows a student to study what he prefers in his own sequence as per his interests.
 - iii. They can learn at their own pace.
 - iv. Students may undertake as many credits as they can cope with without repeating all the courses (papers) in a given semester if they unsuccessful in one or more courses (papers).
- **Records student’s workload realistically.** It calculates not only the time spend by the students in lectures or seminars but also the time they need for individual learning and the preparation of examinations etc.
 - **Helps self-learning.** The choice based credit system encourages self-learning among students that ultimately develop the feeling of self-confidence and self-dependency in them.
 - **Offers more flexibility** to the students allowing them to choose inter-disciplinary (known as Extra-Departmental papers) courses along with major courses, which makes education more broad-based. Thus, they can opt for additional courses and can achieve more than the required credits.
 - **Facilitates students' mobility.** Providing opportunity to transfer the credit earned at one institution to another. Provide more transparency and compatibility between different educational structures. Inter college/university migration within the country and outside becomes easy with the transfer of Credits. This means that it will be easier for foreign universities to come and offer courses in India.
 - **Scope to enhance their skill.** The students have more scope to enhance their skills and more scope of taking up projects and assignments, vocational training, including entrepreneurship.
 - **Improve job opportunities.** • The system improves the job opportunities of students as it helps in enabling potential employers assess the performance of students on a scientific scale.

Disadvantages of CBCS:

- Autonomy of good institutions would be compromised.
- Move towards centralization of higher education. A university system is desirable that encourages diversity and de-centralization, not one that centralizes authority or enforces lifeless uniformity.
- A common syllabus is neither desirable nor feasible as this will diminish creativity and lower standards in order to conform to common standards.
- Not very easy to estimate the exact marks.
- Teachers’ workload may fluctuate.
- Needs proper and good infrastructure for a universal spread of education.

Conclusion

As the University Grants Commission doesn’t have a working dashboard to monitor the existing as well as future implementation of CBCS, it is difficult to say about what kind of preparedness the Universities in general would be having. The UGC has simply mentioned an email id ‘ugc.action@gmail.com’ for reporting the compliance of such an important initiative. The University Grants Commission would need to be extra cautious and get further prepared in

initiating such wide-based reforms so that they don't backfire and lose their due meaning & credence.

It is too early to comment whether CBCS is successful or not. The UGC has always initiated measures to bring efficiency and excellence in the Higher Education System of India. The basic motive is to expand academic quality in all aspects, right from the curriculum to the teaching-learning process to examination and evaluation systems. However, so far multiple methods are followed by different universities across the country towards examination, evaluation and grading system. Considering this diversity, the implementation of the choice based credit system seems to be a good system in assessing the overall performance of a student in a universal way of a single grading system.

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