AN EFFECTIVE CLASSIFICATION AND CODING SYSTEM FOR MANAGING AND MONITORING THE UNIVERSITY ACADEMIC PROGRAMMES AND COURSES

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Abstract

An effective classification and coding system has been designed, developed, and implemented in one of the world's mega universities, named IGNOU (Indira Gandhi National Open University). This system classifies and categorises the various courses of each programme depending upon the nature and description of the courses involved. A suitable and acceptable numbering convention system has been structured for the academic programmes and courses involved. The codes assigned are found to be quite versatile and helps to quickly identify the course level, discipline, and revision version, etc. Also colour codes have been provided in the coding system presented since colours are found to be the unique and commercial medium that appeals to all visually and sensitizes mind quickly and differently. The classification and coding system presented takes care of any ambiguity that may arise while providing data and information, and communicating with internal and external agencies/stakeholders that include learners, teaching, and administrative university staff. The system presented would also be quite helpful for (a) Study material printing division of the university in sorting effectively and quickly supplying the study material to the learners, and, (b) Examination division of the university in quickly and efficiently scheduling the examination datasheets without and overlapping. The classification coding system acts as an effective quality management information tool to make an informed decision to resolve the various day-today challenges in managing and monitoring the university academic programmes and courses. Further, the presented system would facilitate to improve the overall working efficiency of the university education system and help to provide quality education system to its learners.

Keywords: Open and distance education; Coding and Classification system; Quality Assurance; University Governance.

Introduction

The major educational institutions especially big universities have to operate a large number of academic programmes and courses for catering to the educational needs of their millions of learners (AISHE, 2019). These programmes are required to be managed and monitored systematically such that the university educational system can perform its academic and administrative functions quite satisfactorily and effectively. In addition, an appropriate coding system is highly needed not only for streamlining but also for operating systematically the various academic and administrative activities associated with the university educational system involved.

A classification and coding system is the terminology system that is designed and maintained with syntax so as that it facilitates to quickly identify the university academic programmes and courses. In this system, the meaning of the codes remains the same whereas the user is facilitated to identify the item concerned and understand the way it works irrespective of language or location. In the information management processing, "the code is a system of rules to convert information – such as a letter, word, sound, image, or gesture – into another form of representation, sometimes shortened or secret, for communication through a communication channel or storage in a storage medium."(Code, n.d.).

The mega university IGNOU caters to a diverse range of learners that belong to distinct social, economic, and regional groups. It is pertinent that there should be proper synchronization among the learners, teachers, and various divisions for improving the overall working efficiency involved in the herculean task of managing the complete education system associated with the university. To achieve this objective a suitable coding system is presented.

So far as the need requirements for establishing a suitable coding system in the university is concerned, it may be mentioned that in IGNOU, there are many divisions involved in various activities related to university academic programmes and courses. In this university, there are 21 Schools of Study engaged in their regular activities of planning, designing, and developing academic programmes, revision of courses, and undertaking research activities. The academic programmes are delivered through the vast network of 67 Regional Centres (RCs), 3,000 Learner Support Centres (LSCs), 50,000 part-time academic counsellors, and 12 Overseas Study Centres (OSCs) in 10 countries. The term-end examinations (TEE), conducted twice a year, in June and December at about 850 Centres spread all over the country and overseas (Profile, 2020).

The Material Production and Distribution Division (MPDD) which is responsible for the printing of course material, keep the inventory and dispatch the printed material to the students not only before the commencement of the examinations, but also before the assignments are sent to them. This division has to undertake the herculean task that involves bulk dispatch of study material to students in India, and sale of study material to educational institutions and the general public involved.

The Student Registration and Evaluation Division of the university has the prominent task to perform that include registration of students, to make their eligibility list for appearing in the term-end examination, and to look after the work of student support services for different programmes offered by the University.

The programmes/courses offered by IGNOU to a very large student's population that covers online, conventional, multi-disciplinary, and inter-disciplinary schemes, and ranges from Certificate level to Diploma, to Graduate and Postgraduate levels (Annual Report, 2019). Therefore, a proper codification of these courses and the adoption of a standardized method of codification is a necessity for its governance and management.

For streamlining and systematic operation of the above-mentioned activities, it is highly needed to develop an effective classification and coding system for the academic programmes.

In view of the above, an effective classification and coding system for managing and monitoring the university academic programmes and courses was developed and implemented to work effectively with various challenges that emerge due to its enormous size and operational dimensions. This system provides guidelines that facilitate and assist the management and helps to accomplish a system of synchronization between the learners, the teachers and various divisions involved in this herculean task of managing the overall education system. It acts like an effective quality management tool to access the information. The codes are developed as per the statutory structure of the University. A sizeable number of programmes and courses exist and are approved periodically by the statutory authorities of the University. The University recognizes certificate, diploma, and degree level programmes as per the requirements towards horizontal and vertical mobility of its learners.

Coding system at IGNOU

In India, the university shall offer only those programmes which are approved by the statutory bodies of the university as per norms. These norms are in sync with the norms of national regulator i.e. University Grants Commission (UGC) and wherever necessary

further regulated by the apex regulatory bodies such as Medical Council of India, Nursing Council of India, etc. in the country. To have standardized system for academic programmes and its courses of various disciplines it is pertinent to classify them in unique codes and develop a coding system.

The codes are built in the design and development of an academic programme system which in synchronize and act as a bridge between various types of services being rendered by various schools, divisions, units, and centres during the programme approvals of the statutory provisions of university. As such, the programme and course codes are assigned after the approval of the statutory bodies of the university and other official procedures for implementation of the said academic programme

The programmes and courses offered at IGNOU for university programmes are identified by subject area, the specialization abbreviation and number. Previously there was no uniform method of codification; different schools/disciplines employed different approaches in fixing the codes. Because of the above issues since the quantum of work was very huge and maintaining 3.0 million learners was a strenuous task, the programme and courses numbering/coding have been systematically classified for all the academic programmes and courses for all the Schools of Studies.

University Programmes

Largely, the practice that is being followed by IGNOU, is based on two parameters viz. (a) the level of the programme and (b) the subject area of the programme. For example, PGDAE stands for Post-Graduate Diploma (PGD – indicates Post-Graduate Diploma – programme level) in Adult Education (AE stands for Adult Education – subject area) (IGNOU, 2000).

Programme Codes

Programme codes are unique alphabetic codes assigned to programmes for identification purposes. Programme code can have a limited number of characters (usually not more than seven Characters). The alphabetical characters should identify certain parameters about the programme like the level of the programme, the subject area, the specialization features of the programme, etc.

The Programme code will have two parts consisting of alphabetic characters. The first part of the programme code should indicate the level of the programme, like Certificate-C, Post-Graduate Certificate-PGC, Diploma-D, Advanced Diploma-AD, Post Graduate Diploma-PGD, Bachelor Degree-B, Master's Degree-M, etc. if the faculty feels that the conventional

codes like M.A., M.Sc., M.Com., etc. is more convenient and meaningful, then they can be adopted without any modification.

The second part of the programme code should indicate the subject area of the programme like Food and Nutrition-FN, Rural Development-RD, Distance Education-DE, Computer Science-CS, etc.

- For Masters programmes:
    - M.A. in Economics _ MAEC
    - M.Sc. in Computer Science _ MSCCS
- For Diploma programmes:
    - Diploma in Economics _ DEC
    - Diploma in Computer Science _ DCS

Course Codes

Course codes are unique alpha-numeric codes assigned to courses for identification purposes. Although there is no unique way of giving course codes, the course codes can have up to five to ten characters which are designed in such a way that one can easily recognize and memorize them.

The alphabetic characters can be designed in such a way as to identify; the academic units involved in the development of course; the course level (undergraduate degree / post-graduate diploma / postgraduate degree etc.); nature of the course (practical/theory/lab/project etc.) and any other parameter with which course can be easily recognized.

The numeric characters can be used to identify; whether a course is fresh or revised; the serial number of the course; the number of credits in the course (if desired) and the number of blocks in the course (if desired).

In practice, however, the course code should not be too short or too long. A short course code could not help in easy identification of the course. On the other hand, if it is too tedious it is difficult to understand, remember, and pronounce comfortably. The length of each parameter within the course code should also be optimized.

The code of a course should consist of two parts namely, (a) alphabetic part and (b) numeric part. The hyphen symbol "-" segregates the alphabetic and numeric part.

The alphabetic part will have two compulsory and one optional parameter. The course level; which is compulsory– one character width as per codes are given in Table 1

Discipline/area of studies code; which is compulsory – two characters width – some of the recommended codes are given in Table 2 and the last one indicating the nature of the course; which is optional – one character width – recommended codes are given in Table 3.

The Course codes have a course level code followed by discipline/area of studies code and nature of the course code. In other words, the course level code will prefix the discipline/area of studies code and the nature of the course code will suffix the discipline/area of studies code.

Table 1:   Compulsory course level codes

S.No.	Programme/Course Level	Code
1.	Courses up to undergraduate level (like Bachelor's Degree etc. having entry qualification at +2 level).	B
2.	Post-Graduate level courses (like Post-Graduate Certificate /Diploma, Master's Degree etc.).	M
3.	Courses at the Research Degree level (M.Phil., Ph.D., etc.).	R
4.	Awareness Courses	N

Table 2 indicates the list of disciplines along with its codes. Furthermore, there are some areas of studies like tourism, women's empowerment, consumer protection, etc. developed by various disciplines. The code shall indicate each area of study and have a unique code reflecting the area of study. The list of disciplines/areas of studies left out (if any) and codes for future disciplines and areas of studies may be decided by the concerned discipline or area of studies in consultation with the nodal agency. The areas of studies along with recommended codes for some Schools are given in the Table 2.

Table 2:   Compulsory discipline / area of study level codes

S.No.	School	Area of study	Code
1.	School of Agriculture	Agriculture	AP
2.	School of Humanities	English	EG
3.	School of Sciences	Chemistry	CH
4.	School of Social Sciences	Economics	EC
5.	School of Management Studies	Management	MS

Table 3:   Optional nature of course level codes

S.No.	Nature of Course	Code
1.	Lab./Practical/Computing	L
2.	Project	P
3.	Elective	E
4.	Foundation	F
5.	Application oriented	A

If no code is indicated in Table 1-3, it is assumed that it is a theory course. Thus, a course at the level of Master's degree in Tourism Studies will have one of the following (alphabetic part) codes depending on the nature of the course.

MTS-indicates a course in Tourism Studies at the level of Master's degree (observe nature of course code is omitted).

MTSP-indicates a project course in Tourism Studies at the level of a Master's degree.

The three characters Numeric part shall indicate whether a course is fresh/updated (one character), and individual course number (two characters). The first character of the numeric part indicates whether a course is fresh (0 stand for a fresh course) or updated course (1,2,3,4,5,6,7,8,9, indicates the course is revised one in that order) followed by individual course number (two characters 01 to 99). Thus, a course at the level of Master's degree in Tourism Studies will have one of the following codes depending on the nature of the course.

- MTS-015 indicates that a course is: __ at Master's degree level (M) __ in Tourism Studies (TS) __ it is a fresh course (0) __ having serial number 15.
- MTSP-015 indicates that a course is __ at Master's degree level (M) __ in Tourism Studies (TS) __ it is a project course (P) __ it is a fresh course (0) __ having serial number 15.
- MTSP-115 indicates that a course is __ at Master's degree level (M) __ in Tourism Studies (TS) __ it is a project course (P) __ it is first revision course (1) __ having serial number 15.

The hyphen symbol "-" differentiates the alphabetic part and the numeric part to make the distinction and easy readability. Thus, in practice, a course code will have a minimum of seven characters and a maximum of eight characters.

Colour Scheme

The Colour Scheme of a course is a unique colour or combination of colour coupled with design assign to the cover pages of the printed material (Blocks) for classification purposes. It is a uniform pattern of colour scheme for different programmes that differs from programme to programme, school to school, discipline to discipline but also within a programme, school, and discipline. The broad points for a colour should be that not too many colours as many people may not be able to identify and name the colour with marginal differences may be taken. For easy classification, the combination of colour(s) and design course material (blocks) and each University School can have a unique colour scheme.

The colour of a block may be standardized. Each school have been assigned a unique and distinct colour of the cover page of the blocks for all the courses/programmes developed by the school. The colour assigned to each school is shown in the Table 4. With future expansion some contrasting colours like teal, red, brown, blue-grey, olive-green, etc. can be used by in-consultation with the nodal unit.

Table 4:   Colour Scheme

S.No.	School	Colour
1.	School of Humanities	White
2.	School of Management	Mustered Yellow
3.	School of Education	Navy Blue
4.	School of Engineering & Technology	Light Orange
5.	School of Computer and Information Sciences	Light Green

A nodal unit in the university may be established to coordinate and The Schools may seek Programme/Course Codes from it by furnishing the details of the proposed programme and course codes.

Benefits and Conclusions

Earlier it was observed that in IGNOU there had been no acknowledged and effective coding system to systematically manage and monitor the various academic programmes and courses. So an effective classification and coding system have been designed and developed at IGNOU. The coding system has been implemented in over 1100 programmes and 5000 courses and it has been working efficiently. Since its inception, it has been catering to the educational needs of the university stakeholders that also include about three million learners.

This system is considered as one of the best practices that not only ensures integration but also effectively manage and monitor the university academic programmes and courses. This system related to the coding and classification has been facilitated to improve the quality, efficiency, and efficacy of the entire university system. It is inferred that the incorporation of such a classification and coding system into the institutional education system has streamlined and standardized the overall academic procedures and policies required for the efficient functioning of the university. Also, it removes any ambiguity that may arise in providing data and information while communicating with its learners or stakeholders including internal and external personnel associated with the university administration. The presented classification and coding system handles effectively the functional pressures involved in the timely delivery of various academic services. The presented system has streamlined and optimized the activities efficiency related to the university operational divisions, student registration, evaluation, and the material printing department, etc. The registration of students, term-end examinations, entrance tests,

evaluation of project reports, and certification of their performances has now been catalogued as per the classification and coding system for the academic programmes and courses. The codification of these courses and the adoption of the standardized methods have helped to resolve the various issues related to the inventory management system and has also streamlined the overall working of the university education system. It is inferred that the incorporation of such a classification and coding system into the institutional education system has streamlined the overall functioning of the university academic programmes and courses. In addition, the coding system not only plays a prominent role in improving the overall efficiency of the university education system but also helps to provide quality education to its learners.

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