

DEVELOPMENT AND IMPLEMENTATION OF COMPETENCY-BASED CURRICULUM IN HIGHER EDUCATION LEVEL – A UTOPIA?

¹Raj Kumar Pal & ²Dr. Nil Ratan Roy

¹Research Scholar, ²Associate Professor

¹Department of Education,

¹Tezpur University, Tezpur, Assam, India

Received: March 04, 2019

Accepted: April 07, 2019

ABSTRACT: Curriculum is the potentially effective tool empowering the citizens at personal level and further contributing to the national development. Hence, Curriculum is expected to meet the needs of the citizens at individual level as well as at the national level. In order to meet our Sustainable Development Goals to mitigate unemployment, making education skill-based and productive, it may be an effective step to adopt a competency-based curriculum in making education relevant, practical and application-based. This may also strengthen the relationship of learning with daily life situations. A competency-based curriculum recognizes learning not only in terms of acquisition of content knowledge but also in terms of mastery over certain basic skills and abilities. The major curricular objective is the acquisition of knowledge, skills and abilities after completion of a course of study. The present article thus focuses on the need and concept of competency-based curriculum as well as process of its development and challenges towards the implementation of competency-based curriculum.

Key Words: Competency-based Curriculum, Development, Higher Education, Implementation.

I. INTRODUCTION

The General Agreement on Trade and Services (GATS), a treaty of the World Trade Organization (WTO) that came into force from January, 1995 as a result of the Uruguay Round negotiations is one of the landmarks in the field of economy and education. As a consequence re-planning and re-designing of curriculum in higher education level have become the need of the hour. A curriculum which can produce skilled human resources is at urgency now. In order to mitigate such need Competency-based curriculum may be quite fruitful. Competency-based curriculum may supply skilled personnel to deal with the demand of job-market. Competency-based curriculum is believed to be more suitable in the sector of higher education. Effective implementation of Competency-based curriculum calls for identification and determination of the basic skills to be developed, the procedures of assessment and evaluation of the acquired skills and competencies, the means of weaving competency and skill development in the contents and activities and ensuring the development of those.

Hence, it is a really big challenge and mandate for the educational institutions to fulfill the requirements of GATS through the inputs of competency-based education in enhancing skills among students. Presently, in this era of globalization, the dominance of science and technology is evident as those are highly influencing the sector of education. Actually, the core of knowledge-based economy is that how are the inputs and processes that develop the human capitals, and further how much competent and skillful human resource is produced (Choudaha, 2008).

In the context of Indian higher education level, the advisory committee under chairmanship of Prof. Yashpal prepared a report. The report of 'The committee to Advise on Renovation and Rejuvenation of Higher Education' in 2009 explored that a large part of the students getting degrees even from reputed institutions of higher education found not to possess expected skills they really need to work in the real-world environment. Hence, they are becoming jobless. United Nations Development Programme (UNDP) has set sustainable goals as to ensure inclusive as well as equitable quality education and to promote the lifelong learning opportunities for all (Goal: 4) and to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (Goal: 8). The Curriculum planners need to reflect on the following questions while planning change in the curriculum:

1. What aims and objectives are to meet by the educational institutions in the context of competency enhancement?
2. What activities and educational experiences are to be incorporated in order to attain the decided aims and objectives?

3. How to design and execute the educational experiences to make those effective?
4. How to ensure whether the pre-determined aims and objectives are attained through proper implementation of Competency-based Curriculum?

II. OBJECTIVES

The present article has focused on the following objectives:

- i. To discuss the importance of competency-based curriculum
- ii. To discuss about the process of development of competency-based curriculum in higher education
- iii. To discuss the plausible challenges towards the implementation of competency-based curriculum

III. WHAT IS COMPETENCY?

The concept of competency is broad. Actually, competency comprises knowledge, attitude and skills. Literally, the term competency refers to the ability of individual to perform any task of activity, effectively. Generally, it is conceptualized that competency is the ability to apply the learning outcomes in different situations and in different contexts. Kouwenhoven (2003) defines competency as the ability to perform a task effectively, while individual characteristics such as interest, motivation and self-confidence are part of that context, whereas, Gravina (2017) considers competency as the ability based on behaviour-knowledge, attitude and skills.

Curriculum reforms and Curriculum development should follow a holistic and systemic approach, which becomes critical in ensuring effectiveness and sustainability of learning instead of traditional piecemeal approach. In order to ensure relevance, critical understanding, ownership, mastery, commitment, and support, such change processes should be based on broad consultations. A major drawback of the current curriculum is that it is limited to assess learning outcomes only in terms of academic achievement. It also lacks of opportunities to align education with learners' career interests, aptitudes, and abilities. Ultimately, the traditional curriculum being subject-centred and knowledge-centred, is unable to grow interest and motivation among students. While competency-based curriculum aims to foster skill and competency among the students.

IV. COMPETENCY-BASED CURRICULUM

Competency-based curriculum focuses on the output of the whole learning process with reference to knowledge, skills and attitudes developed among the learners those are to be applied in practical field instead of focusing on what learners are expected to learn from traditional subject-centred curriculum (Gravina, 2017). It is undoubtedly a learner-centred as well as activity-centred curriculum that attempts to cater the diverse needs of both teachers, students, parents and society (Fullerton, Thompson, & Johnson, 2013). Such curriculum consists activities and the learning experiences those provide a wide scope for the students to apply their expertise, knowledge and skills in daily-life situations. Hence, Competency-based curriculum is usually designed and centred on a set of pre-decided and pre-identified competencies.

The philosophy behind Competency-based Curriculum focuses on assessing expected learning outcomes that would ensure the competency and proficiency of the learners. The competence-based curriculum may be realized as the bridge between traditional system of education and the need created in the world of work (Kouwenhoven, 2003). Curricular inputs should be at par with the need and demands of contemporary job market. If the curricular experiences are not consistent with the requirements of time, the problems of unemployment cannot be eradicated. So, planning and designing of curriculum should focus on the specific pre-decided competencies. Competency-based curriculum actually puts effort on development and improvement of academic and professional profiles of the students (Serdenciuc, 2013), enhances the urgency to create active learning environment to facilitate learning by doing and learning by experience and catalyze the shifting of the traditional concept of learning as passive acquisition of knowledge to learning as development of skills through development of basic competencies (Edwards, Sanchez-Ruiz and Sanchez-Diaz, 2009). The main idea of competency-based curriculum illustrates:

1. Shift from instructional objectives to skill and competencies.
2. Shift from content to outcomes
3. Learning will be based on activities whereas assessment on performance of learner and accomplishment of criteria
4. Teaching is learner-centred and activity-centred;
5. Introduction of large scope for Formative assessment.

Actually, Competency-based education focuses on the mutual integration of knowledge, skills and attitude of learners that enable them to apply in day to day situation. This may become a tool to reduce the

gap between theory and practice. That is why competency-based learning is considered as an emerging paradigm that provides the scope for encouraging students' creativity and innovations (Edwards, et al. 2009). The very first step towards planning and implementation of Competency-based curriculum are:

1. Identification and operationalization of the parameters those comprehensively define competency.
2. Tools and techniques for measuring or assessing the defined competency.
3. Setting the quality standard on the basis of which someone will be judged to be competent.

V. DEVELOPMENT AND ASSESSMENT OF COMPETENCY BASED CURRICULUM

Activity integration into the academic curriculum is quite necessary in order to develop competency-based curriculum. First of all, the curriculum planners must identify the specific skills and competencies those are to be developed and nurtured among the students. Then, the curricular contents are to be selected and organized in order to fulfill the abovementioned purpose. The teachers should adopt appropriate methods to teach the contents and inculcating competencies among students irrespective of subjects of study. Further, appropriate and efficient assessment procedures and techniques are to be implemented constantly to ensure the mastery of learners on those developed competencies. The model presented below may be regarded as a guideline for developing a working model for Competency-based curriculum:

Figure: A Conceptual Model for Development of Competency-based Curriculum

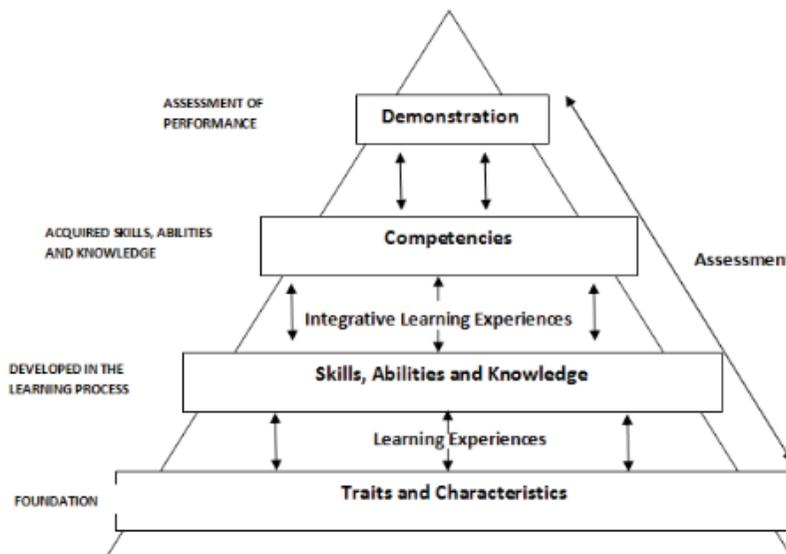


Figure 1.A Conceptual Model for Development of Competency-based Curriculum (CBC), adopted from Voorhees(2001). The model shows inter-relation as well as inter-dependence among the basis of CBC, process of implementation of CBC and assessment of CBC.

Development of competency-based curriculum involves selection of relevant contents and proper organization of those selected curricular contents to provide adequate learning experiences to the learners in order to meet the pre-decided aims and objectives of Competency-based Curriculum, followed by identification of skills those to be fostered and nurture among students (Andronache, Bocos, & Neculau, 2015), then to adopt appropriate teaching strategies to develop those skills and finally to assess the acquired skills, abilities and content knowledge with reference to pre-decided objectives by using appropriate assessment procedures.

However, devising appropriate assessment procedures to measure the extent of acquisition of knowledge, attitude and skills is a challenging task. Rubric may be an effective tool in the present context. The list of criteria/dimensions based on which assessment will be done, may be as follows: skill of presentation, level of accuracy, systematization, innovativeness, critical thinking and so on.

VI. CHALLENGES TOWARDS IMPLEMENTATION OF COMPETENCY-BASED CURRICULUM

The 'competencies' i.e. the expected skills and abilities of individuals being the basic output of Competency-based Curriculum, the specification of competencies become the central process for any

discipline. Now, to carry out this process irrespective of discipline as well as nature of content is quite challenging. Implementation of Competency-based curriculum to be successful it is extremely important that intended learning outcome that is individual competencies of the learners, the appropriate teaching-learning approaches and framing appropriate procedures of assessment in order to meet those intended learning outcomes (Crujeiras & Jimenez-Aleixandre, 2013). The parity and consistency among the pre-decided goals, the process of teaching-learning and the assessment procedures will determine the extent of effectiveness of the curriculum.

It is needless to say that competency-based learning demands for formative assessment of knowledge and skills with reference to the regularity and periodicity of assessment. Moreover, such formative assessment will enable teachers as well as the students about their weakness and there are multiple scopes for taking immediate intervention for the sake of remedy. Developing an assessment rubric implementing competency-oriented assessment is another challenge for implementation of Competency-based Curriculum. The other possible challenges may be as follows:

1. Identification of competencies
2. Assessment of diverse types of competencies
3. Incorporation of the identified competencies in curriculum
4. Lack of teachers to administer competency based curriculum
5. Lack of infrastructure to employ competency based curriculum

VII. DISCUSSION AND CONCLUSIONS

Influence of contemporary advancement in science and technology in the sector of education is quite large and hence evident. Such intervention has called for skill development along with the mastery of knowledge. Competency-based curriculum may be considered as an initiative in order to cater the need. There requires a large scale needs assessment before implementing Competency-based curriculum. Although there may be a lot of challenges towards introduction of competency-based curriculum in higher education, those may be combated with proper planning and with small-scale intervention. We should take an initiative to perform an experiment with such curriculum. If proved fruitful, it may be replicated to larger settings. For the implementation, curriculum designers have to identify competencies, to chalk-out appropriate teaching-learning methods, to provide orientation to teachers and to devise assessment tools, setting appropriate criteria. Before all that teachers and students should be aware of the concept of competency-based curriculum and its relevance in the present context.

BIBLIOGRAPHY

1. Andronache, D., Bocos, M., & Neculau, B. C. (2015). A systemic-interactionist model to design a competency-based curriculum. *Procedia - Social and Behavioral Sciences*, 180, 715 – 721. doi: 10.1016/j.sbspro.2015.02.183
2. Choudaha, R. (2008). *Competency-based Curriculum for a Master's Program in Service Science, Management and Engineering (SSME): An Online Delphi Study* (Doctoral dissertation, University of Denver). Retrieved from www.linkedin.com/in/rahulc
3. Crujeiras, B., & Jimenez-Aleixandre, M. (2013). Challenges in the implementation of a competency-based curriculum in Spain. *Thinking Skills and Creativity*, 10, 208-220. Retrieved from <https://doi.org/10.1016/j.tsc.2013.07.001>
4. Edwards, M., Sanchez -Ruiz, L. M., & Sanchez-Diaz, C. (2009). Achieving Competence-Based Curriculum in Engineering Education in Spain. *INGENIO (CSIC-UPV)*, 4, 1-25. Retrieved from <http://digital.csic.es>
5. Fullerton, J. T., Thompson, J. B., & Johnson, P. (2013). Competency-based education: The essential basis of pre-service education for the professional midwifery workforce. *Midwifery*, 29(10), 1129-1136. Retrieved from <https://doi.org/10.1016/j.midw.2013.07.006>
6. Gravina, E. W. (2017). Competency-Based Education and Its Effect on Nursing Education: A Literature Review. *Teaching and Learning in Nursing*, 12(2), 117-121. Retrieved from <https://doi.org/10.1016/j.teln.2016.11.004>
7. Kouwenhoven, W. (2003). Competence-based curriculum development in higher education: some African experiences. Retrieved from <http://dare.uvu.vu.nl/bitstream/1871/15816/6/7>
8. Serdenciuc, N. L. (2013). Competency-Based Education – Implications on Teachers' Training. *Procedia - Social and Behavioral Sciences*, 76, 754 – 758. doi: 10.1016/j.sbspro.2013.04.200
9. Voorhees, R. (2001). *Measuring What Matters: Competency Based Learning models in Higher education*. New Directions for Institutional Research. 2 (XXVIII). John Willy & Sons, Inc, USA.