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Competency Based Curriculum in Higher Education: A Necessity Grounded by Globalization

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Abstract

Ever demanding forces of globalisation have introduced new discourses into curriculum planning in the higher education. In order to sustain in the knowledge based economy and to deal with demand in job market, incorporation of competency based curriculum is emerging as a necessity in higher education sector. In order to develop competency based curriculum in higher education, determination of competencies for each discipline and subsequent development of means of measurement and performance assessment is a must. There are competency based models developed for specific discipline through intense research can serve as a guiding tool for this purpose.

In this backdrop the present paper tries to draw an attention to the importance of competency based curriculum and its pros and cons.

Keywords:

Curriculum, Competence, Innovation, Knowledge Based Education

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Introduction

The term "globalization" has gained considerable attention and importance during the last few years. In a "flat world" where technology and globalization is levelling the competitive landscape, the nature of knowledge work is changing at the interface of technology and services and the demand for knowledge workers is increasing as the complexity of knowledge work increases (Choudaha, 2008). The basic premise is that knowledge is becoming a primary factor of production, in addition to capital, labor and land. (Morell, 2007). These shifts indicate emergence of a "new knowledge-based service economy" that differs from the industrial economy. The distinctive characteristic of "knowledge-based economy is its dependence on human capital inputs, on knowhow and skill, competence and expertise" (Choudaha, 2008). These ever demanding forces of globalisation have introduced new discourses into curriculum planning of higher education. In order to sustain in the knowledge based economy and deal with demand of job market, incorporation of competency based curriculum is emerging as a necessity in higher education sector. Specifically in Indian context, Prof. Yashpal's committee report on Renovation and Rejuvenation of Higher Education mention - currently, many students passing out from institutions of higher education do so without obtaining the kind of skills they really need to work in a real-world environment (Singh, 2009). In this backdrop the present paper tries to draw attention to the importance of competency based curriculum and its pros and cons.

Concept of Competency

The concept of competency has been developed over a long period of time. It plays an important role in organisational success. In Latin one can find 'competens', as being able and allowed by law/regulation, and 'competentia', as (cap)ability and permission (Mulder, 2007). Competence in Longman Dictionary of Contemporary English (1995; p 270) is defined as "the ability and skill to do what is needed". The use of the western European words 'competence' and 'competency' date back to the early 16th century (Mulder, 2007). The concept of competency was developed as early as 1957 by Selznick (as cited by Shaikhah et al, 2009). It has been originally used in the field of education to describe trainee teacher behaviours (Bowdenard Masters, 1993; Hoffmann, 1999). It became widely known in the management field through the work of Boyetzis in 1982 (Hoffmann, 1999). According to Deist & Winterton (2005) the concept of competence or competency dominated the management strategy literature of the 1990s, which emphasized 'core competence' as a key organizational resource that could be exploited to gain competitive advantage.

Competency and Competence

The term competence and competency are confused in the literature (Shaikhah et al, 2009). It has been defined from several points of views and much ink has been spilt on finding accurate definition between competence/competences and competency/competencies (Hoffman, 1999). As Shaikhah et al.(2009) has pointed out that, many authors, including Winterton (2009), McClelland (1973), Thornston (1992), Athey and Orth (1999), Kurz and Bartram (2002), Schippmann (2000), Lustri (2007), Le Boterf (2000), etc, wrote about competence and/or competency using one of these terms, and sometimes both of them in the same article, believing that both terms hold the same meaning. The number of definitions of competency continues to grow along with different view points from different researchers. Those researching the field, as well as practitioners, have evolved several meanings that serve as a focus for their efforts to implement the competency approach to their work (Hoffmann, 1999). A primary point of contrast is between individual competencies – those knowledge, skills, and abilities that individuals in the organization possess – and organizational competencies – those things that characterize collective action at the organizational level (Olson and Bolton, 2002). However, Whiddett & Hollyforde (2003) have mentioned that most definitions are variations on two well-established themes from different origins as follows:

Descriptions of work tasks/ i.e. what a person has to do in a job. These has their origin in national training schemes such as the National/ Scottish Vocational Qualifications and the Management Charter Institute (MCI)

Description of behaviour/ i.e. how a person does their job. These have evolved from the work of researchers and consultants specialising in managerial effectiveness.

A general convention has developed although it is not always followed, which use 'ability based on work task' as "competence" (plural competences) and 'ability based on behaviour' as "competency" (plural competencies) (Whiddett & Hollyforde, 2003). According to Armstrong (2005) also, whilst competency is a person-related concept, competence is a work related concept. Kouwenhoven (2003) presents a comprehensive definition of competency, according to which, 'Competency' is the capability to choose and use (apply) an integrated combination of knowledge, skills and attitudes with the intention to realise a task in a certain context, while personal characteristics such as motivation, self-confidence, and willpower are part of that context; and 'Competence' is the capacity to accomplish 'up to standard' the key occupational tasks that characterise a profession. Therefore, competency may be defined as

the necessary knowledge, skills, experience and attributes to carry out defined function effectively, whilst competence means those things the whole organization must be good at to outperform its competitors (Mackay, 2003). At individuals' level, competencies mean skills, traits, characteristics and behaviours that distinguish an individual, whereas at the organizational level, competences are those activities that an organization has the capability to effectively performing given the required skills and knowledge (Hafiz, Siddiqi & Essmail, 2006).

Competences are usually job or role-specific while competencies can cover a wide range of different jobs and often cover different levels of jobs as well (Whiddett & Hollyforde, 2003). For the present work the word "competency" will be used as per the definition given by Whiddett & Hollyforde (2003), where competency is the broader term that refers to ability based on behaviour- i.e. how they have to achieve.

Competency Based Curriculum

The effectiveness and efficiency of any educational programme is largely dependent on the philosophy of the curriculum design followed (Sudsomboon, 2007). According to Fincher (1986, cited by Choudaha, 2008) the most significant influence on college curriculum since the 1960s has been the demand for measured or assessed outcomes that would ensure the competency and proficiency of graduates. A way to conceptualise the relation between education and the world of work is through competence-based education (Kouwenhoven, 2003). If specific competencies are not focused in the curriculum design philosophy, the products of the higher education may not be "work-ready" and therefore not readily accepted by the industry. Therefore, to reduce the unemployment and 'under employment' levels, it becomes necessary to consider 'occupation-specific competencies' in the curriculum designs (Sudsomboon, 2007). According to a report of U.S. Department of Education (2002) the importance of implementing competency-based initiatives in colleges and universities lies in two major reasons; *'One main reason is that specific articulations of competencies inform and guide the basis of subsequent assessments at the course, program, and institutional levels. Secondly, specific competencies help faculty and students across campus, as well as other stakeholders such as employers and policymakers, to have a common understanding about the specific skills and knowledge those undergraduates should master as a result of their learning experiences'*. Therefore demand from the stakeholders is also leading to the emphasis on competency based education (Choudaha, 2008). Competency based curriculum summarizes academic and professional profiles, defines new objectives in the learning process, enhances learning environments and shifts the concept of learning as accumulation of knowledge to learning as a permanent attitude towards knowledge acquisition (Edwards et. al, 2009).

The main idea of competency-based curriculum illustrates (Sudsomboon, 2007):

1. Instead of objectives, think “competencies”;
2. Instead of content, think outcomes;
3. Learner activities will be based on performance of learner and accomplishment of criteria;
4. Teaching activities are learner centered;
5. Formative evaluation is necessary.

Competence-based education (CBE) aims to make students more competent through the acquisition of competencies and further development of the newly acquired or already held competencies. Grant et al. (as cited by Edwards et. Al, 2009) in 1979 defined competence-based education as “a form of education that derives a curriculum from an analysis of a prospective or actual role in modern society and that attempts to certify student progress on the basis of demonstrated performance in some or all aspects of that role”, concluding that competence is a broad term, and that the programmes based on competences can be very diverse with respect to their theoretical orientation, their scope, their intentions and their scientific focus. Competencies can be domain-specific, relating to clusters of knowledge, skills and attitudes within one specific content domain related to the profession. Another group of competencies is called ‘generic’, because they are needed in all content domains and can be utilised in new professional situations (transfer) (Kouwenhoven, 2003). The specification of competencies is an important process for any discipline, as competencies define the expected capacities of individuals (Gebbie et al, 2002).

The characteristics of competency-based education (CBE) are given by Kouwenhoven (2003) as follows:

- CBE is oriented to the professional practice.
- CBE is learner-centred and the learning process is central.
- CBE has a constructivist approach.
- In CBE the role of the teacher is that of a ‘cognitive guide’.
- CBE has learning environments focussed on the development of competencies.
- CBE includes the development of generic competencies.
- In CBE assessment focussed on competencies.
- In CBE curriculum development is based on the elaboration of profiles and identification of competencies.

In fact competence-based education is considered the leading paradigm for innovation since it emphasizes the integrated nature of what students need to learn to face not only labour market but also life in general (Edwards et. al, 2009). Brownell and Chung (2001) identified five major benefits of competency based education—a change in the student-teacher relationship, an increase in

emphasis on internal information sharing, improvement in clarity of desired student outcomes and program effectiveness, better articulation of the competencies of program graduates, and an increase in student satisfaction and learning. The implementation of an educational training curriculum should be based on social demands, and the competency analysis process identifies whether students have attained the competency standards proficiently (Sudsomboon, 2007). According to U.S. Department of Education, National Center for Education Statistics (2002), Competency-based initiatives seek to insure that students attain specific skills, knowledge, and abilities considered important with respect to whatever they are studying or the transitions for which they are preparing. Utilizing competencies requires the development of three distinct, but interactive components:

- A description of the competency;
- A means of measuring or assessing the competency; and
- A standard by which someone is judged to be competent.

In order to develop competency based curriculum in higher education, determination of competencies for each discipline and subsequent development of means of measurement and performance assessment is a must. Competency models developed for specific discipline through intense research can serve as a guiding tool for this purpose. The U.S. Department of Education has prescribed the following conceptual learning model for competency which can be seen as guideline for developing a working model;

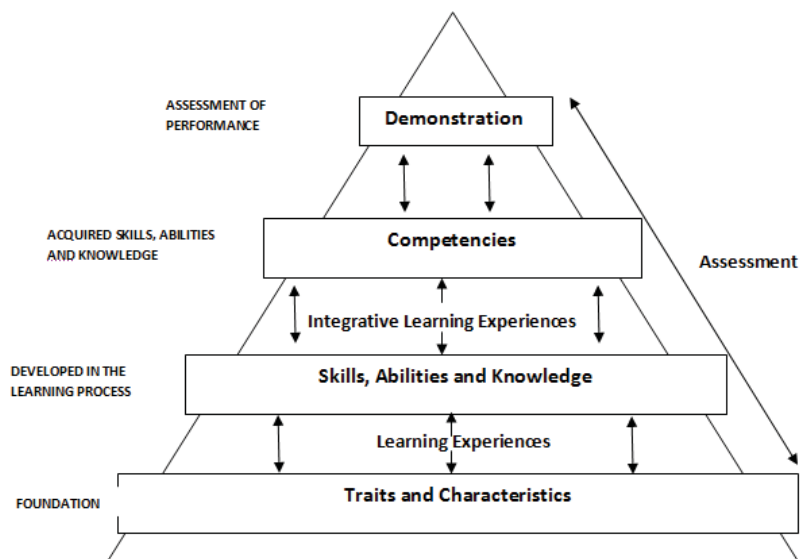


Fig1: A Conceptual Learning Model, adopted form Voorhees(2001)

Challenges of implementing Competency based curriculum

Regarding the implementation of the intended curriculum it is extremely important that intended learning outcomes (competencies), teaching & learning approaches and assessment are aligned (Kouwenhoven, 2009). The higher education system as a whole should be flexible for ensuring proper alignment of competency based curriculum. Various regulatory authorities along with rules and regulations of universities may prohibit the experimentation and innovation in case of implementing competency based curriculum. Reforming a curriculum towards a more competence based approach implies more autonomy for the educational institution offering the educational programmes (Kouwenhoven, 2009).

Another major challenge for faculty, staff, and administrators is to ascertain the “data ramifications” that ensure that competencies are both valid and reliable with the ultimate aim, in practice, being that they are fully transportable between and outside of postsecondary entities (U.S. Department of Education, 2002). Data ramifications also refer to efforts to describe competencies in a uniform manner so that they can have the same meaning in a variety of contexts and for a variety of audiences. By taking care of data ramification standardization of terminology and semantics can be ensured which in turn can lead to the transportability of competencies among different disciplines of higher education and across organizations.

Conclusion

We can think as many as innovative and catchy curriculum to incorporate in higher education. But, who will administer these courses? Many questions arise in implementing this type of curriculum? Thus, the competency based curriculum demands orientation of teacher of higher educations. Strong and multifaceted competent faculty is must and for which faculty development in right direction will become. For inculcating and facilitating competency based curriculum compelled by the global issues demand the collaborative administration with the institutes those already have been practicing and administering. There are various institutions of western as well as advanced eastern countries those are already in the stream can cooperate in adopting the curricula. Indian higher education may go for collaboration with such institutes and organisations to reap the benefits.

References

- Armstrong, M. (2005) *A Hand Book of Human Resource Management Practice*, 9th edition, Kogen;
- Brownell, J., Chung, B. G. (2001) The management development program: A competency-based model for preparing hospitality leaders. *Journal of Management Education*, 25(2), pp.124-145;
- Choudaha, R. (2008) *Competency-based Curriculum for a Master's Program in Service Science, Management And Engineering (SSME): An Online Delphi Study*. Executive summary: Doctoral dissertation, University of Denver, USA. Available on www.linkedin.com/in/rahulc;
- Deist, Delamare Le Francoise, Winterton, J. (2005). What Is Competence?, *Human Resource Development International*, Vol. 8, No. 1, March 2005, pp 27 – 46;
- Edwards, M., Sánchez-Ruiz, L. M., Sánchez-Díaz, C. (2009, April) Achieving Competence-Based Curriculum *In Engineering Education In Spain. INGENIO (CSIC-UPV) Working Paper Series 2009/04*, pp. 1-25. retrieved on 15th Feb from [http://digital.csic.es/bitstream/10261/14228/1/Achieving_competence_based_curriculum_in_Engineering_Education_in_Spain\[1\].pdf](http://digital.csic.es/bitstream/10261/14228/1/Achieving_competence_based_curriculum_in_Engineering_Education_in_Spain[1].pdf);
- Hafiz, K., Siddiqi, J., Essmail, E. (2006) Using Analytical Hierarchy Process for Evaluating Organization Core Competencies and Associated Personal Competencies, *Proceedings of the 7th European Conference on Knowledge Management*, Corvinus University of Budapest, Hungary, 4-6th Sept, 2006, Edited by Peter Feher, Published by Academic Conference Ltd, pp 192-205;
- Hoffmann, T. (1999) The meanings of competency, *Journal of European Industrial Training*, Vol. 23 Issue: 6, pp.275 – 286;
- 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%20Competence-based-curriculum.pdf> on 2nd January, 2011;
- Kouwenhoven, W. (2009) Competence-based curriculum development in Higher Education: a globalised concept?, in Lazineca, A., Calafate, C. (2009) *Technology Education and Development*, ISBN: 978-953-307-007-0, InTech, pp1-29;
- Mackay, P. (2003) Competencies and Competence, what they are and what part they play?; retrieved from <http://www.mdcentre.gov.nz> on 20th Nov, 2010;

- Morell, L. (2007) Globalization And Engineering/Science Education: Do They Converge? 1-4 July, 2007, SEFI-IGIP Joint Annual Conference. University of Miskolc, Miskolc, Hungary, retrieved from <http://luenymorell.files.wordpress.com/2010/12/morell-globalization-and-eng-edu-converge1.pdf> on 15th Feb, 2011;
- Mulder, M. (2007) Competence – the essence and use of the concept in ICVT, *European journal of vocational training* – No 40 – 2007/1, browsed on 2nd January 2011 from <http://www.papert.org/articles/freire/freirePart1.html>;
- Olson, J., Bolton, A. P. (2002) Chapter 7. Competencies, retrieved from <http://www.au.af.mil/au/awc/awcgate-doe/benchmark/ch07.pdf> on 14th Dec, 2010;
- Singh, G. S. (2009) Higher Education Road Map for India, retrieved on 10th Feb, 2011 from <http://knol.google.com/k/higher-education-road-map-for-india.html>;
- Sudsomboon, W. (2007) Construction Of A Competency-Based Curriculum Content Framework For Mechanical Technology Education Program on Automotive Technology Subjects. *Proceedings of the ICASE Asian Symposium* . Pattaya, Thailand, retrieved on 4th Feb, 2011 from http://www.kmutt.ac.th/rippc/pdf/abs50/5030_03.pdf;
- Tripathi, P., Suri, R. K. (2010) Development of Competence based management and Performance Assessment System for Academic Management: Empirical Investigation, *International Journal of Innovation, Management and Technology*, Vol. 1, No. 4, October 2010, pp 357-361;
- U.S. Department of Education, National Center for Education Statistics. *Defining and Assessing Learning: Exploring Competency-Based Initiatives*, NCES 2002-159, prepared by Elizabeth A. Jones and Richard A. Voorhees, with Karen Paulson, for the Council of the National Postsecondary Education Cooperative Working Group on Competency-Based Initiatives. Washington, DC: 2002. retrieved on 12th Feb, 2011 from <http://nces.ed.gov/pubs2002-2002159.pdf>;
- Voorhees, R. (2001) Measuring What Matters: Competency Based Learning models in Higher education, *New Directions for Institutional Research no 110*, Vol XXVIII, No 2, John Willy & Sons, Inc, USA;
- Whiddett, S., Hollyforde, S. (2003) A practical Guide to competencies: how to enhance individual and organizational performance, *Chartered Institute of Personnel and Development*, CIPD House, London.