Curriculum Changes in Higher Education in ASIA: An Issue of Developing Core Competencies at Universities

Hadiyanto
hadiyanto_2000@yahoo.com
A Lecturer at Education Faculty of University of Jambi
Indonesia

Abstract

To be able to compete and participate in world global economy, higher education in ASIA should turn the policies and the curriculum of university from conventional objective to recent contexts of global challenges and employment settings. This changing policy context should weight to the developing of core competencies at universities in order to prepare graduate to be accustomed with fast changes and with multi-disciplinary situation at work place. University must implement a curriculum which is not only aim to develop students’ specific disciplinary of knowledge but develop students with the merging of knowledge specific content with core competencies such as communication skill, IT skill, numeracy, learning how to learn, problem solving, working with others. The frameworks of core competencies development should be formulated and implemented and graduate ‘core competences’ has must become an measurement of the quality to face the global competition. By this manner, intended outcomes of higher education namely employability, lifelong learning and good citizenship will be attained.

1. Introduction: Higher Education in ASIA and the Global Issues

The world is facing unprecedented challenges arising from the convergent impacts of global evolution in all areas. The higher education than become an engine of growth in triggering a country development to go further beyond than the globalization development. For developing countries that aspire to utilize global progress and development, higher education is a fundamental tool in globalizing every sector of development.

To reflect the global issue, Higher Education in ASIA begins to promote qualified human resources as one of major quality measurement of university outputs. UNESCO (2006) state that the development of HE in Asia must take more progressive action by giving a weight to global competitiveness. The developing higher education should become a component of overall strategy for survival and competitiveness within the global world economy, and an option to help with addressing current inequalities development in this global advancement. (Brodjonegoro, 2002 in UNESCO, 2006). Furthermore UNESCO (2006) reveals that universities in ASIA countries should be able to prove that they benefit the wider population, ensuring the effective use of public resources to enhance the nation’s competitiveness.
Moreover, Malaysian, Indonesian and Singaporean higher education realized that the 21st century will be characterized by greater international competition where the quality of educational outcomes put as the main objective. Consequently, graduate employment has become a quality measurement for universities, and the alignment of their graduates’ skills with the expectations of employees is receiving more attention from universities (UNESCO, 2006).

1.1 Vision and Mission HE Malaysia, Singapore and Indonesia

Malaysia HE has been very much influenced by global trends such as the democratization of education, the decentralization of the national education system, the privatization of higher education, the shift towards standardization and quality assurance.” In 2005 and beyond, reforms and changes to higher education will continue to be put in place and this will likely be very much influenced and determined by the potential of trade in education services. More specifically Malaysia planning vision 2020 ‘human capital’, the MoHE is mandated to continuously improve standards so as to produce quality graduates to meet the needs for a skilled workforce, and to make Malaysia the regional and international hub of educational excellence (UNESCO, 2006). While attempting to deal with future challenges and development, the Malaysian Government has to engage to current needs of the private industry, toward the current issues and future challenges an appropriate curriculum must be implemented at Higher Education stage (see Ambigapathy and Aniswal 2005; Morshidi et al. 2003, 2004; NEAC 2003).

In Singapore, changes in the global economy and job market require that graduates have initiatives and high skills, be adaptable to rapidly changing situations, and work well in teams and in different cultural environments. This requires major changes in the way universities educate their undergraduates, and increases emphasis on graduate and continuing education (NUS, 2006). Singapore’s planning is to develop into an international centre of learning Asia. The major restructuring program at Higher education level was conducted with emphasis on skills and technology. The aim is to enable Singapore using global resources, global technology and global talent to answer the future challenge (UNESCO, 2006).

In Indonesia, the new paradigm of HE placed quality and relevance of higher education as the main priority and core of national higher education development (UNESCO, 2006). It is expected that by 2010 Indonesia will have a competitive leverage due to the existence of highly reputable higher education institutions, and it is believed that a strong higher education program will lead to a nation’s competitiveness (Basic Framework for Higher Education Development KPPTJP IV, 2003).

In 2003, the Education ministry of Indonesia stated that higher education has a critical role of producing qualified graduates, if quality higher education is the target to achieve. Indonesia realizes that to improve the quality of its human resources both the problems of access and quality have to be taken into account in finding out their solution (Basic Framework for HE Development KPPTJP IV, 2003).
Looking from the vision and mission of HE, there is an agreement between the three countries on the need of core skills to be shifted into the HE curriculum. Core skills or core competencies will be discussed below.

2. The Developing Of Core Competencies In Higher Education

There is growing trend for university in the world to align core competencies with the higher education curriculum. Each country has its own model of core competencies. However all model in some countries are specifically employment related, while in others greater emphasis has been placed on their social relevance. Table 1 outlines the different labels being used for core competencies in various countries.

Table 1. Relevance term of core competencies used by some countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Terms used to describe core competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>Core skills, key skills, common skills</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Essential skills</td>
</tr>
<tr>
<td>Australia</td>
<td>Key competencies, employability skills, generic skills</td>
</tr>
<tr>
<td>Canada</td>
<td>Employability skills</td>
</tr>
<tr>
<td>United States</td>
<td>Basic skills, Necessary skills, workplace know-how</td>
</tr>
<tr>
<td>Singapore</td>
<td>Critical enabling skills, Competencies</td>
</tr>
<tr>
<td>France</td>
<td>Transferable skills</td>
</tr>
<tr>
<td>Germany</td>
<td>Key qualifications</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Trans-disciplinary goals</td>
</tr>
<tr>
<td>Denmark</td>
<td>Process independent qualifications</td>
</tr>
<tr>
<td>Canada</td>
<td>Generic Skills</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Generics Skills, Core Competencies</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Life Skills, Soft Skills</td>
</tr>
</tbody>
</table>

(NCVER, 2003:6)

The most widely used definition of core competencies or popularly referred to as key skills is the definition given by Qualifications and Curriculum Authority (QCA, 2002). QCA believes that ‘key skills are the generic, transferable skills that the government and much of the industry consider to be essential for successful lifelong learning and a flexible workforce’ (QCA, 2002 in http://www.qca.org.uk). However, in this paper core competencies will be used due to in the conceptual frame works of Higher education in Malaysia and Indonesia use the term ‘Competencies’ to describe generic skills (MoHE of Malaysia, 2005 and KPPTJP IV, 2003).

Core competencies are skills that students need in order to become successful learners and successful employees in the field of their study and work and in other aspects of their life and therefore, are an important outcome of university education (MoHE of Malaysia, 2005:3, Core Renewal Steering Committee, Loyola University, 2003: 1-4). In relation to this, Hodgkinson (2000:7) explains that key skills involve one’s use of personal and cognitive skills and abilities with a purpose to carry out a variety of tasks and activities as well as in learning new things. Gonczi et al (1990:9) as cited in Barrett et al (1997); Leggett, et. al, (2004: 296) clarify that a competence as ‘a
combination of attributes underlying some aspect of successful professional performance’, for instance communication, critical thinking, problem solving and computing. The definition given by Gonczi et al (1990:9) seems to say that a competence is a blend or mixture of qualities which form the basis for successful performance in one’s career. Hence, it is noted that one crucial fact is that core competencies indeed correlate with employability. Conford (2005:28-29) and Zalizan Mohammad Jelas, et. al (2006:3) agree to defined core competencies as sets of skills or abilities acquired and developed during one’s course of study at higher education level and they are absolutely essential to meet three potential outcomes of higher education namely the different needs and requirements of employers in the marketplace, lifelong learning and good citizenship.

The model of Core Competencies development

In this study, the trend of core competencies discussed in this paper was referring to the model developed by Zalizan Mohammad Jelas, et. al (2006), QCA, (2002) and Mayer Committees, (1992). The model than supported by literatures review related to core competencies development at university for Hodge (2007), D. Bath et. al, (2004), MoHE of Malaysia (2005) and Bennett and Dunne, et. al (2000). The model of core competencies development will be discussed in three phases: curriculum of higher education, core competencies and outcome (see figure 1)

Curriculum at Higher Education

Curry, et. al, (2003); Mcnnis (2006) verify that recent trend of higher education were to assure and identify the core competencies are developed at university. University is demanded by global challenge of job situation to prepare students with the workplace beyond their knowledge and technical skills. The undergraduate students must be prepared with the core competencies during their time in third-level education.

The changes curriculum from conventional to the trend issue was reinforce by a number of studies in Europe (Atkins, 1999; Bennett, Dunne & Carré, 2000; Gallagher, 2000; Harvey, Moon & Geall, 1997;QCA 2006) shows that the employers were not satisfied in relation to the implementation graduate attributes, capabilities, competencies and the like at universities. The employers consider core competencies are important for higher education because they reflect how well graduate skills meet the expectations of job market. In addition, Crebert (2004) a survey was conducted which suggested that graduates in Australia were under-equipped for employment. And Core Renewal Steering Committee Loyola University Chicago (2004) suggested university to shift core competencies as a core curriculum. As a result some advance and developing countries promote generic skills into core curriculum for personal and professional development due to the growing demand and the global workforce.

The core curriculum is at the heart of the institution's educational mission. It is critical for every university of excellence to periodically reexamine itself to ensure that
curriculum goals and outcomes are meeting the needs of its students and society. Similarly, faculty have the responsibility to examine the foundations of the core curriculum and to build on its past when developing the structure, pedagogy and content of the core that will provide students with the knowledge, skills and habits of mind that are needed for the challenges of the 21st century (Core Renewal Steering Committee Loyola University Chicago, 2004).

The core competencies are the core that will equip the undergraduate with some skills and evident of real work (Candy 1995). Harvard, Hughes & state that core competencies are skills that students need to become successful higher education learners and successful employers in the fields of their study and work and in other aspects of their life and therefore, are an important outcome of university education Clark (1998)

**The core competencies**

The core competencies or key skills have aroused consistently in the literature and central in discussion of generics skills both form academic and employers until today (Bath, et. al, 2004:315; Star and Hammer; 2007: 240). In Australia, the attention focused on skills has increased significantly since Mayer committee 1992 proposed seven key competencies as a basis of employability skills that can be addressed by formal education (Leggett, at al, 2004:295 and Scottish qualification authority, 2003:6). The seven key competencies proposed by Mayer Committee, 1992 are collecting, analyzing and organizing information, communicating ideas and information, planning and organizing activities, working with organizing activities, using mathematical ideas and techniques, solving problems, using technology (cited in Scottish qualification authority, 2003:6). While in UK, the Qualifications and Curriculum Authority (QCA, 2002) defined communication, IT, application of number, working with others, improving own learning and performance and problem solving specifically as QCA skills ([www.qca.org.uk](http://www.qca.org.uk)).

MoHE of Malaysia, 2005 define eighth specific competencies that students should demonstrate at the end of the program. The competencies are knowledge in specific fields, use of ICT, intellectual skills in critical thinking, knowledge seeking, problem solving and creative decision making, practical skills, and ability to communicate. Similarly, Winston Hodge (2008:1) director training and development division of Singaporean MoE points out eight cores kills and values are Character Development, Self Management Skills, Social and Cooperative Skills, Communication Skills, Literacy and Numeracy, Thinking Skills and Creativity, Knowledge Application Skills, Information Skills.

However, core competencies discussed in this paper is more inspired by model developed by QCA, (2002); Zalizan Mohammad Jelas et. al (2006) and Washer, (2007). Core competencies consist of communication skills, numeracy, Information Technology (IT) skills, learning how to learn, problem solving, working with and others subject content competencies.
**Communication skills.** The skill need to enable graduates delivering their idea as individual or as group member and comprising a diversity of backgrounds in order to come out with a good decision, solution and negotiations (Morreale, Osborn & Pearson, 2000:1-3). Communication skills refers to one’s ability to use active listening, writing skills, oral communication, presentation skills, questioning and feedback skills in order to establish successful communication ((Mayer Committee, 1992 as cited in Scottish qualification authority, 2003:6; QCA, 2002; Washer, 2007:62-65 and Jones, 2009: 89).

**Numeracy.** Numeracy define as the aggregate of skills, knowledge, beliefs, patterns of thinking and related communicative and problem solving processes individuals need to effectively interpret and handle real-world quantitative situations, problems (Gal, 1997:1; Zalizan Mohammad Jelas, et.al 2006; Washer, 2007:62-65).

**Information Technology.** Technology skills refers to the ability of ‘individuals to apply technology such as computers, software applications, databases, and other technologies to achieve a wide variety of academic, work-related, and personal goals (Mayer Committee, 1992 as cited in Scottish qualification authority, 2003:6; ACRL, 2003; Washer, 2007:62-65). Herington, et. al (1999) the use of technology in teaching and learning to provide many opportunities to teachers and learners develop their lifelong learning.

**Learning how to learn.** Learning how to learn is defined as acquiring sets of skills and knowledge for one to learn efficiently and effectively in any learning situation that one encounters (QCA, 2002). Learning features processes, understandings and skills that can be learned and taught. When one has gained mastery in learning how to learn, one can learn effectively and efficiently at any age. Thus, this competence is thought to be of potential importance to the concept of lifelong learning and the self-managed learner (Smith, 1982:14; Zalizan Mohammad Jelas, et.al 2006 and Washer, 2007:62-65).

**Problem solving skills.** Problem solving skills is defined as the ability of the individual to tackle problems systematically, for the purpose of working towards the solution and learning from this process ((Mayer Committee, 1992 as cited in Scottish qualification authority, 2003:6; Bennett, et. al 2000; QCA, 2002; Zalizan Mohamad Jelas, et. al, 2006 and Washer, 2007:62-65). The ability to solve problems will have a great impact on the success of the students’ "real life" endeavors (Cook & Slife, 1985). QCA (2002) the purpose of this skills to enable the students tackle problems systematically at the working place towards the solution and learning from this process.

**Working with others.** Working with others defined as the ability of the individual to meet own responsibilities and work cooperatively in pair or group of people for the purpose of achieving shared objectives (QCA, 2004; Zalizan Mohammad Jelas, et al. 2006 and Washer, 2007:62-65). Focusing on helping students to learn to become valued members of a team – which is one of the most vital skills that one should have
for employability ((Mayer Committee, 1992 as cited in Scottish qualification authority, 2003:6, QCA, 2004). The ability to work as a team member will give a great impact to produce new ideas and to find the way out in every situation of real work life.

**Subject specific competencies.** Its defined as one’s possession of knowledge, capabilities and dispositions to organize and provide instruction at the appropriate level of the study which inter-relate with subject content taught (Zalizan Mohammad Jelas, et al. 2006 and Washer, 2007:62-65). NCTE (1997) states that every graduate must have a specific subject knowledge related with his/her selected discipline and understand to linked to others disciplines and it can be applied in the real world integrated setting. Myers (2000) one should posses the subject content competency as his/her basic knowledge and capabilities.

Developing the seven core competencies in classroom and outside classroom will help promote students to become more effective, independent learners during their studies as well as enhancing their employment prospects on graduation. As a result the graduate of university comes out with three major outcomes Employability, Life-long learning and Good citizenship (QCA, 2002; Zalizan Mohammad Jelas, 2006; Washer, 2007:58 and Star and Hamer, 2007:9).

**Outcome of Universities**

Employability is seen as one’s possession of qualities and competences in order to meet the changing needs of employers and customers (CBI, 1999 as cited in QCA, 2001). It is to do with ‘the capacity to gain initial employment, maintain employment and obtain new employment if required (IES, 1999 as cited in QCA, 2001). Yorke (2001) views employability as a synergic blend of personal qualities, skills including key skills and subject understanding. Yorke (2001) believes that personal qualities has a direct link to employability as well as being an influential factor in acquiring skills and subject understanding. QCA (2001) highlights two important ways that individuals can realize their potentials in employment namely their initial preparation for employment and their active management of their career development.

The concept of lifelong learning receives considerable definitions and interpretations from various sources. Dearing Report (1997), which is entitled ‘A vision for 20 years: the learning society’, states the purpose of education is ‘life-enhancing: it contributes to the whole quality of life.’ Recognizing the significant role of higher education in the development of the nation, the Dearing Report (1997) believes that ‘economically successful nations will be those which become learning societies’ through effective education and training, to lifelong learning. In relation with core competencies development at universities, students’ development of skills will help them to become more effective, independent learners during and after their studies as well as enhancing their employment prospects on graduation.
A review of literature affirms that good citizenship is given considerable attention as one of the desired outcomes of higher education. The Robbins Report 1963 identified ‘transmitting a common culture and common standards of citizenship’ as one of the aims and objectives of higher education. It can be implied that the Dearing Report 1997 also suggests several elements of citizenship in its aim to shape a democratic and civilized society through values such as ‘a commitment to the pursuit of truth, a responsibility to share knowledge and a willingness to listen to alternative views and judge them on their merits.’

What should Higher Education in ASIA do?

Refer to literature review (QCA, 2002; MoHE of Malaysia, 2005, Star and Hammer (2007; 242-245); Washer, 2007; 62-65; Loyola University Chicago, 2003:1-4) and Mayer Committee: 1992 all agree that core competencies pedagogy is about the curriculum, teaching process and assessment system at universities. The curriculum of university should encourage personal development of individuals with core competencies who are not narrowly focused on a discipline of knowledge (Star and Harmer, 2007; 245). Teaching process should demonstrated appropriate approach and
method of teaching and learning, consistent with and support the attainment of core competencies as the learning outcomes (MoHE of Malaysia, 2005). There must be a variety of teaching-learning methods that are enjoyable which will enable students to develop the range of intellectual and core competencies as well as positive attitudes (MoHE of Malaysia, 2005). The teaching-learning methods must ensure that students take responsibility for their own learning and prepare them for lifelong learning. Total dependence on the lecture method is not encouraged (QCA, 2002); MoHE of Malaysia (2005); Star and Hammer (2007; 242-245) and Washer, 2007; 62-65). And finally, assessment methods should not merely assess the student’s discipline of knowledge but also assess core competencies and integrated between theory and practice (Robley, et al. 2005; 325)

Conclusion

ASIA countries facing the global challenges where the all working fields need employee to possess the core competencies in order to be able to compete in global economic development. To meet the global challenge universities are in charge of in developing students’ core competencies; communication skills, IT skills, and numeracy skills, learning how to learn skills, problem solving skills, working with others skills, and subject core competency during the study period.

The university in ASIA should envisage that every single graduate of the university posses the seven attributes. The seven skills could be carried out in delivering course content. Finally by equipping students with the core competencies they will succeed as professionals and responsible members of society. Employability, lifelong learning, and good citizenship as quality measurement of university outcome could be attained.

REFERENCES


12
