

ISSN 2072-0149

The AUST

JOURNAL OF SCIENCE AND TECHNOLOGY

Volume - 7 Issue : 1 & 2
January 2015 & July 2015
(Published in July 2018)



**Ahsanullah University of
Science and Technology**

EDITORIAL BOARD

Prof. Dr. Kazi Shariful Alam

Treasurer, AUST

Prof. Dr. Jasmin Ara Begum

Head, Department of Architecture, AUST

Prof. Dr. Md. Amanullah

Head, School of Business, AUST

Prof. Dr. Sharmin Reza Chowdhury

Head, Department of Civil Engineering, AUST

Prof. Dr. Kazi A. Kalpoma

Head, Department of Computer Science & Engineering, AUST

Prof. Dr. Satyendra Nath Biswas

Head, Department of Electrical & Electric Engineering, AUST.

Prof. Dr. Lal Mohan Baral

Head, Department of Textile Engineering, AUST.

Prof. Dr. A. K. M. Nurul Amin

Head, Department of Mechanical and Production Engineering, AUST.

Prof. Dr. Tamanna Afroze

Head, Department of Arts & Sciences, AUST

EDITOR

Prof. Dr. Kazi Shariful Alam

Treasurer

Ahsanullah University of Science and Technology

Mechanism towards Competence of the Graduates: A Critical Observation on Higher Education in Bangladesh

Prof. Dr. S M Kabir*

Abstract: *Competence of graduates describes the level of quality of an academic program. Competence constitutes of a set of skills with a balanced combination of both hard and soft skills as required to ensure fitness of the graduates. In this article the author attempted to identify the hard and soft skills those are very critical to develop the competence of the graduates. It is recognized that gaining competence is neither an incidental event nor something that may automatically happen. Competence with holistic development of the graduates is an outcome of well-defined mechanism and system of input-process-output. In this article the author explained this mechanism with the critical inputs and components of the process. Efforts to design and manage the competence development mechanism refer the contributions of a higher education institution towards the gainful employment of the graduates, credibility of the HEIs and sustainable socioeconomic development of a nation.*

Key Words: *Competence, Hard Skills, Soft Skills, Graduate Profile, Learning Outcomes, Student Centered Learning, Higher Order of Thinking Skills.*

Introduction

In the face of changing and increasingly competitive global economy sustainable socioeconomic development of any nation mostly depends on knowledge, creativity and innovation. It is widely recognized that higher education forms the basis of knowledge, creativity and innovation. Knowledge, skills and values leading towards competence are considered as the key lever of sustainable development (UNESCO, 2012). In true sense, education and competence hold the key to future wellbeing and become critical to ensuring long-term growth, tackling unemployment and promoting competitiveness (Angel, 2014). In fact, higher education institutions support the knowledge-driven economic growth strategies and increase in standard of living by providing quality human resources, new knowledge and innovation (World Bank, 2002). At this age, it is well-established that higher education should be linked with the economic development agenda of the country and practical needs of the society (Altbach, 2008). Competent human resources, new knowledge and innovation are the outcomes of quality education. The quality of education can be measured by the employability of the graduates and extent of contribution to organizations and national development (University Grants Commission, 2014a). In an ever changing environmental setting the definition of quality education and requirements for quality education are changing. It is very important to keep in mind that quality education is all about to gain a set of skills. These skills are very critical to make the graduates competent to face the reality of life and to become responsive to the society.

Over the last few years, Bangladesh economy has been experiencing a growth rate of above 6%. With the expansion of industry, manufacturing and service sectors Bangladesh intends to attain the middle income status by 2020 (University Grants Commission, 2014b).

* Department of Marketing, University of Rajshahi, Bangladesh

In that case, higher education has a very critical role to propel the economic development of Bangladesh towards the target. In recent years, enrollment in higher education in Bangladesh has increased significantly. There may be many reasons to select a particular discipline or subject by the students in higher education. But, on top of everything, there is always a dream in the mind of these students to build better career after the graduation. Better career needs better education and required skills. But existing academic culture in terms of governance, student enrollment, teaching–learning and assessment etc. in higher education in no way is a guarantee of quality education and better career. There is an urgency to look into the effectiveness of the existing academic programs in providing appropriate knowledge, enhancing creativity and innovation with desired skills for life. Higher education must be more closely aligned to the needs of the community, needs of the graduates to explore their potential in terms of employability and lifelong learning. It may be noted that employability does not mean to prepare students for jobs only. It also refers the ability of graduates to use their skills and intellectual capacities for self employment, employment opportunity creation and to contribute to the socioeconomic development of the country. Higher education institutions (HEIs) should focus on preparing graduates with positive mindset and competences to meet the standards, which would enable them to handle the real life situation favorably.

Ongoing Discussion

In recent years, quality of higher education and attainment of skills become the very important points of discussion. Research findings and discussion establishes importance of skills for employability of the graduates and to make them fit for contributing in sustainable socioeconomic development. Skills, knowledge and attitudes develop the readiness to job and enable graduates to make productive contributions in achieving the objectives of the organizations (Mason, 2006). Graduates need to have necessary skills, which will enhance their capacity to explore the potentials and to enhance their prospects of employment (Stephen, 2000). In today's challenging economic situation it is not enough to have only the knowledge on a particular subject graduates completed to get the university certificate or diploma. The graduates must come out of the university equipped with requisite qualifications and skills to ensure higher economic growth and prosperity in life and the society. These are ultimately the purposes of higher education. Many academics have designed a range of practices to equip students with job-related skills to ease their transition to the world of work (Washer, 2007). Thus, it is the responsibility of educational institutions to develop such skills (Simon Cassidy, 2006). There is an immediate need to integrate key skills into the curriculum and to develop a national policy on key skills in higher education, which may be effective to meet the needs of the stakeholders (Antonios, 2012). Academic institutions should be responsible to equip graduates with marketable skills (Chisty et al, 2007).

National education policy of Bangladesh describes the purposes of higher education is to generate and innovate knowledge, at the same time to build up a skilled manpower (Ministry of Education, 2010). Skilled manpower refers the ability of the graduates to meet the needs of the stakeholders and ability to contribute towards the sustainable socioeconomic development of the country. Capacity and educational process of the universities are very critical to develop the desired ability of the graduates.

Researchers, national and international development organizations are increasingly emphasizing on the strategic roles of higher education to develop the human resources with required skills. The above findings and discussion establishes the urgency of changing and strategic roles of higher education institutions. The Economist reported that South Asia has been focused on meeting the demand for more universities with little attention to quality or employability of graduates acquiring necessary skills and knowledge (The Economist, 2014). It is observed that in recent times, quality assurance, roles of the universities, higher

education and skills development, employability of graduates become the important areas of discussion. In Bangladesh, so far noticed, a very few studies have been done on quality assurance, state of education and employability of graduates. But the focus of those studies is not that much on needs assessment for employability and competence development of the graduates. It is very important to have meaningful studies on the employability of the graduates and on the process of the universities to serve the purposes of the stakeholders. As such, it is critical to explore the following issues (IUCEA, 2010a):

- Has the university clearly defined goals to achieve ?
- What does the university do to achieve the defined goals and whether the process guiding the university is adequate to achieve the goals ?
- Whether the university is doing the right things in the right way ?
- What opportunities are there to improve further ?

It is also very important to look at the appropriateness of the academic programs and effectiveness of the curricula to address the generic skills defined in graduate profile. In addition, critical analysis is also required on the strategic roles of co-curricular and extra-curricular activities towards the skills development of the graduates. In that consideration, any study or article on competence development mechanism would have immense importance to address the issue of skill mismatch and to enhance the employability of the graduates. Accordingly, this paper is prepared focusing on the competence development mechanism of academic programs in higher education in Bangladesh.

Statement of Problem

Despite considerable economic potential, remarkable GDP growth Bangladesh still can be characterized by wide spread poverty, resource limitations, and huge unemployment problem. Indications are there that the world economy is growing and the Bangladesh economy also growing steadily, which encourage to believe that employment opportunities are also expanding. But increasing unemployment and difficulties of graduates to get the right opportunities are raising the issues of skill mismatch, competence of the graduates and effectiveness of the academic programs.

In December, 2013 the BRAC University and Prothom-alo jobs organized a round table discussion on “Tackling Graduate Unemployment: The Need for University-Industry Cooperation”. On the occasion a good number of eminent business personalities, academics and intellectuals of the country expressed their critical observations relating to the university education and employability of the graduates. It is opined by the discussants that though Bangladesh is facing a serious unemployment problem most of the companies are running with 10-15% of vacant positions because they do not have the right people to recruit. It is also mentioned that industry does not need to be convinced about hiring the graduates, they are looking for it for their own growth. It is actually the supply side problem to meet the needs of the industry. Industry may invest for further improvement of the quality and skills of the recruited executives. But every graduate needs to have some basic skills, which are the entry requirements for a particular job or industry, so that they can easily fit into the system. Besides, some entrepreneurial skills can make the graduates capable of creating their own employment opportunities instead of searching job. Experts on the occasion opined that in Bangladesh, the university provision of three months internship system for many disciplines is a show off. Somehow, students manage a performance report which serves the requirement of the university. But students do not get enough learning in terms of knowledge, skills and attitudes from internship or industrial attachment. In most of the cases, lack of effective guidelines, meaningful monitoring and process management, purposes of internship system are not achieved.

Every year graduates are coming out from the universities and looking for jobs. A good number of graduates with degrees from overseas universities are also coming in Bangladesh, which makes situation even more complicated for the local graduates. University degree is no longer a guarantee of a good job. In most of the cases, graduates acquire degrees completing academic programs with little or no practical orientation of real life situation. In fact, other than a very few exceptions, academic programs are basing on rote teaching-learning without experiential learning outside the classroom. Such higher education may simply be considered as the wastage of time, efforts and investment without dividend. Thus, ineffective academic programs and teaching learning are resulting in skill mismatch, chronic unemployment and huge loss of most important human resources of the country. As such, reasons to be worried that the sustainable economic growth of the country will be under threat, unless the universities respond proactively to address the issues.

Significance

This is true that universities are to culture knowledge, create new knowledge and produce good citizens for the nation. At the same time it is to be remembered that universities are run by public funds or by stakeholders' contribution. In that case society or other stakeholders will expect dividend against such investment in terms of competent human resource and visible contribution to the socioeconomic development. So, if university education does not enable graduates to have competence for employability, then they will become the burden of the economy and nation. As such, higher education institutions across the globe are under pressure to re-engineer the process of education in respect of the ever changing and complex needs of the contemporary workplace. Across the world, competence development has been addressed with considerable importance on curriculum and innovative teaching learning. It is highly expected that universities will be engaged in providing quality education and developing responsible citizens. But if education fails to make any contribution to the personal fulfillment of the students and society as a whole, then such education does not make any sense.

This article discusses the significance of a competence development mechanism recognizing the strategic roles of effective teaching-learning, co-curricular and extra-curricular activities. The approach may encourage the universities to rethink about the effectiveness of academic programs, re-engineering of the educational process and its impact on the society. In order to develop the competent graduates and reduce the skill mismatch this article would be very useful to the concerned policy makers and practioners. In effect, higher education institutions would be able to make significant contribution to the professional fulfillment of the graduates and drive the economy towards prosperity.

Objectives

The specific objectives of the paper are to:

1. Identify the major skills and significance of these skills for employability of the university graduates;
2. Examine the academic and policy literatures related to skills development and share the insights for the universities working on quality assurance; and
3. Design a competence development mechanism to produce graduates as human resources and good citizens addressing the concerns of the stakeholders.

Methodology

This article is prepared mainly on the basis of critical observations from the intensive discussion on quality assurance with the academics and top management of major public

and private universities in Bangladesh. A good number of published literatures and relevant research studies were also critically reviewed for the preparation of this article. To understand the career requirements 23 leading employers in Bangladesh, covering the major sectors, were interviewed to collect information on the employment requirements for the university graduates.

Competence of the Graduates

Competence refers the ability of the graduates to meet the needs of the stakeholders with enough sensitivity. Competence determines capability of the graduates to do a particular job in a more acceptable and efficient manner maintaining the standards and maximizing the outcomes. It includes personal qualities, ability to analyze and understand the situation, integration and uses of knowledge appropriately and effectively to achieve the objectives (Stephenson, 1998). Competence of graduates will be measured by performance and behavior of the graduates in a given environmental setting in respect of recognized standards.

Over the last two decades, it is observed that the continuous and discontinuous changes in environmental settings are changing the way of doing jobs and thinking in working life across the world. Globalization, increasing deregulations, technological advances and demographic changes increased intensity of competition, enormous opportunities for growth, complexity in decision making and managing the organizations effectively. All these changes are increasingly challenging and eroding the traditional sources of competitiveness. Environmentalism, consumerism, revolutionary development of information technology, growing sophistication in lifestyles and environmental complexities forced organizations to become more efficient and creative than ever before. As such, organizations, companies and countries that will succeed in future will be those, who are capable of fostering creativity and innovation, managing and mastering these changes favorably. To be innovative and creative organizations need quality people with a new mind-set, values and positive attitudes with required level of competence.

Competence of graduates may be explained in terms of a wide range of skills broadly hard and soft skills. Hard skills are more on subject matter driven and teachable in class. Hard skills include job skills like mathematical computation, ability to operate machinery, financial modeling, and the ability to use software programs and so on. On the other hand, soft skills are less tangible and harder to quantify. These are mostly personality-driven and primarily refer to personal qualities. Soft skills include interpersonal skills, communication skills, cross cultural sensitivity, commitment, self-confidence, ability to work under pressure, self-motivation, negotiation skills, self-management skills, adaptability, team building skills, leadership skills, positive mindset, integrity, ethical standards etc. Creative thinking, decision making and problem solving skills, often called life or employability skills. The identified skills for competence of graduates are:

Hard Skills

Knowledge on subject matter: Conceptual and contemporary knowledge in subject matter with an understanding of basics of related areas is very important for graduate attributes of any particular discipline. Ability to integrate and create new knowledge using the understanding of strategic issues and theoretical framework that have central importance to the discipline is also very important.

IT skills: With the innovation of information technology the way people live and work has changed significantly worldwide. At this age, IT skill is very critical to compete at the global context and make significant contribution towards the sustainable socioeconomic

development of the country as well. IT is increasingly adopted as an effective and convenient means of communication and professional works. Thus, it is important for the graduates to have the ability to use technology to access, analyze, organize, process and share information. It is very important to educate students to work effectively in an increasingly technological world with enough knowledge of using internet facilities and general software for academic and professional purposes.

Research Skills: It is now widely acknowledged that research and innovation is the core of university education. Research maximizes the contribution of universities to socioeconomic development. Ability to investigate the problems, issues, analyze and evaluate arguments and evidences, integrate and use knowledge to generate new ideas describes the research skills of the graduates.

Entrepreneurial Skills: In addition to the knowledge on core subject(s) students need to have the entrepreneurial skills, flexibility and understanding of the economy. Students also need to have the ability to use their academic excellence in the industry and economy gainfully for the welfare of the society and personal fulfillment. Entrepreneurial skills may be effective to change the mindset of graduates from job seeker to job creator and self employment.

Soft Skills

Intellectual skills: Intellectual skills, curiosity and questioning mind and critical reasoning should be the most important aspects of higher education. Proactive thinking, ability to identify a problem, predict consequences and generate multiple solutions to the problem enable graduates to make significant contribution to achievement of organizational objectives and socioeconomic development of the country as well.

Communication skills: Ability to express ideas and subject matter logically and settlement of negotiations gainfully communication skills are become the sources of competitive advantage. Most often, ability to interact with others in the social environment using several approaches of communication are called social skills.

Interpersonal & Team building skills: Respect to the values of others and groups, an appreciation of human and cultural diversity and ability to work in a team are very important aspects of competence. Interpersonal and team building skills are important in the present globalized and multicultural environmental setting.

Leadership skills: Ability to organize team, set goals of the team and lead the team towards the achievement of objectives with visionary capacity enhances the competence of graduates.

Personal & Self management skills: Ability to adopt in a diverse cultural and environmental setting is very important in a globalized working environment. Recognizing personal strengths and weaknesses, self-motivation for development and life-long learning contributes in continual improvement culture. Self-management, work load management, stress management, ability to work under time pressure with confidence are keys to meet the needs of the stakeholders.

Integrity: Awareness of ethical standards and discipline would make the graduates sensitive to the society with ethical behavior. The quality of being honest and having strong moral principles are very critical to be a responsible good citizen.

Professional development skills: Respect to the professional code of conduct, commitment and sense of responsibility would enable the graduates to ensure best performance and explore the potentials for career fulfillment.

It is revealed from the discussion with the selected employers that communication skills, integrity, ethical standard, commitment and interpersonal skills are the most important dimensions of competence of graduates. Employers considered these skills very critical for employment and career development.

Table: 1 Importance of the Dimensions of Competence to the Employers

(Scale: 1 to 5, where 1 being the lowest and 5 being the highest)

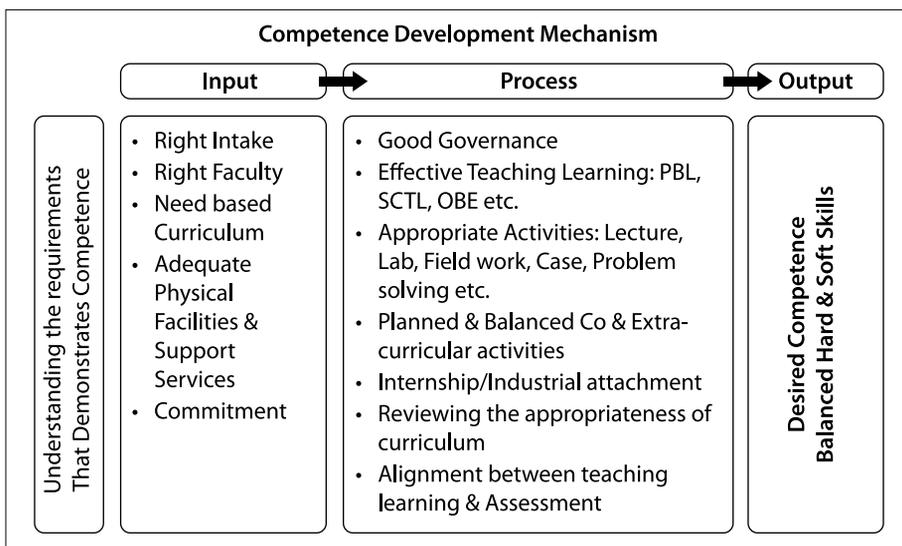
Competence	Rating
Job Knowledge	4.0
IT Knowledge	4.5
Communication Skills	5.0
Intellectual Skills	4.0
Interpersonal Skills	4.5
Problem Solving & Decision Making Capability	4.5
Ethical Standard / Integrity	5.0
Commitment	5.0
Interpersonal skills	5.0
Leadership skills	4.0

Source: Compiled from survey data

It is evident from the discussion with the employers that in most of the cases performance in written test and oral interview are the key factor in selection for a particular position. Hard skills are simply important to apply for job. It is recognized that soft skills are more important than hard skills in career. Thus, soft skills complement the hard skills. But it is to be remembered that hard skills cannot be replaced by the soft skills.

Competence Development Mechanism

Competence development mechanism is a comprehensive system comprising the capacity and process of higher education institutions (HEIs). Competence development mechanism is developed using the input-process-output model considering many factors and different dimensions that affect the desired quality in education (IUCEA, 2010b).



In an ever changing environmental setting the requirements for competence of graduates are also changing. As such, educational institutions need to go through the need assessment for effective academic programs. It is required to define the Graduate Profile accordingly on the basis findings of need assessment. The Graduate Profile should clearly and succinctly describe the competencies of the graduate that the program aims to produce. All the inputs need to be managed properly under a well-defined process and then be linked to their contribution to the overall graduate profile and achievement of the competencies as desired.

Input

Right Intake: Right students and right faculty members are the key in the process of competence development mechanism. Students who have interest in the subject and pre-requisite qualifications to afford the course load of the program, which is mandatory to fulfill the requirements for graduation, may be the right students.

Right Faculty Member: Requirements to be a right faculty are academic excellence, expertise, spirit of life-long learning and interest in the course(s). In addition, professional development of faculty members is required in the form of training on innovative teaching learning with emphasis on classroom management and assessment.

Need Based Curriculum: In designing effective curriculum national relevance, industry requirements for employability, social and community needs to make the graduates socially responsible, internationalization needs for mobility and professional requirements for career are very important. In order to confirm the need based curriculum objectives of the academic programs need to be defined addressing the needs of the stakeholders. Then, curriculum needs to be aligned with the objectives and outcomes of academic programs.

Physical facilities: Better implementation of curriculum, planned co-curricular and extra-curricular activities depends on the availability of adequate and appropriate physical facilities and resources. It is important to identify the resources required for a particular course through curriculum mapping.

Support services: Environment and requirements at the tertiary level education are

significantly different from that of at the Secondary and Higher Secondary levels. In true sense, it is a very crucial time for the students in terms of significantly different teaching learning environment, increasing freedom regarding academic and social affairs. Failure to cope with all these may force many brilliant students to be dropped out or derailed. Sufficient and proper academic guidance and counseling beyond regular class time, opportunity to involve in community services, effective career counseling may help the students to cope with the challenges and opportunities, keep them sincere and committed, explore their best and make their dream come true.

Commitment: It is true that quality education needs quality faculty and quality infrastructure and other facilities. But sincerity and commitment have no alternative.

Process

Governance: Governance at university encompasses the organizational structures, legislative framework and processes through which, policies and programs are developed, managed, delivered and make the institution accountable (Eurydice, 2008). Governance facilitates the achievement of the stated vision, mission and objectives of the university. The Universities must have the organizational structure with defined authorities and responsibilities of the players in the governance system. It is required to have separate mission and goals/objectives of the program offering entities under the broad vision, mission and objectives of the University.

Effective Teaching Learning: Teaching learning method, in fact, sets the stage for everything to come in terms of learning outcomes and competence. Empowering and preparing academic staffs for a greater role in competence development through adopting the innovative teaching learning approaches are very critical. Teaching-learning practices should engage students in academic affairs, make students responsible for learning and participation in competence development activities through proper motivation and guidance. More specifically,

- Teaching learning practice needs to be interactive, motivating, promoting sense of responsibility and commitment through case method of teaching learning, problem based teaching learning, group discussion, debate, simulation, role play etc.
- Teaching-learning practices need to involve more practical evidences, initiate critical thinking, and inspire students to apply acquired knowledge in the real life situations focusing on higher order of learning.
- At this age of digitalized world technology integration in teaching learning becomes central to the competence of graduates.
- Teaching learning approach must integrate appropriate co-curricular and extra-curricular activities for holistic development of the graduates.
- Students need to make more responsible for their learning through the adoption and effective practice of student centered learning.

Co-curricular and extra-curricular activities: It is to be remembered that students learn more beyond the class room teaching learning. Co-curricular and extra-curricular activities are integral parts of mechanism for competence with holistic development of the graduates. These are very critical to mould the personality of the graduates and develop the soft skills. These are also important to provide the avenues of socialization, self-identification and self-assessment when the students come in contact with others. Planned participation in co-curricular and extra-curricular activities would support the development of problem solving, communication, leadership skills and social sensitivity as well. As such, universities must

have comprehensive plan with enough motivation, opportunity and guidance to organize, participate and co-ordinate various co-curricular and extra-curricular activities.

Internship or Industrial attachment: This is very important to engage students in planned, discipline specific work and learning experiences with enough opportunity to integrate knowledge and theory and practical application. At the end of academic programs students need to be placed in a professional setting for experiential learning and to enhance competence. Such program may be considered as capstone for the requirements of graduation. But, in order to achieve purposes, internship must be well-managed under well-defined guidelines.

Review of the curriculum: Appropriateness of the curriculum needs to be assessed in respect of the changes in the environment. Curriculum review and updating should be done on a regular basis. During curriculum review emerging and contemporary issues need to be considered with due importance to make the curriculum appropriate.

Alignment between teaching-learning and assessment: Comprehensive and competent assessment plan is the last station of quality assurance, which provides, assurance of learning to the external stakeholders for employability, credibility and image of the academic programs and higher education institutions (HEIs) as well. Assessment practices must be aligned to well-defined learning outcomes (LOs) and teaching learning activities with specific focus on higher order of thinking skills (HOTS). Multiple but appropriate assessment methods should be adopted in measuring attainment of LOs, which include diverse elements to be measured with specific purpose, validity and reliability.

Output

A well-functioning process using the inputs will ensure the desired competence of the graduates with required soft and hard skills as output.

Conclusion

Traditionally, quality in education is defined in different ways. But beyond the minimalistic definitions of quality in higher education the issue of competence with measurable and observable skills is required to be ensured. Competence of graduates should be system driven and outcome of a well-defined process. It may be noted that there is no single approach for the development of competence of the graduates. It is the responsibility of higher education institutions (HEIs) to design the suitable competence development mechanism addressing the defined objectives, graduate profile and intended learning outcomes (ILOs). Most often it is observed that program management does not recognize the importance of soft skills for competence and students are already overloaded with hard skill courses. But in the context of highly competitive globalized economy both hard and soft skills should be taken with enough seriousness for competence of the graduates. In order to develop a system for desired competence as output, the inputs and management of the process are also very critical. Ignoring the inputs and proper management of the process the mechanism will not work to serve the purposes of education. Higher education institutions need to look into the capacity and effectiveness of the mechanism to produce graduates with competence, which should be the whole purpose of education.

References

- Altbach, Philip. G, (2008) 'The Complex Roles of Universities in the Period of Globalization', *Higher Education in the World 3: New Challenges and Emerging Roles for Human and Social Development*, Palgrave Macmillan, p. 6
- Angel Gurría, (2014), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, <http://dx.doi.org/10.1787/eag-2014-en> p. 15.
- Antonios, Panagiotakopoulos, (2012) 'Employability skills development in Greek higher education institutions (HEIs) : Implications for policy makers', *Higher Education, Skills and Work-Based Learning*, Vol. 2 Iss: 2, pp.141 – 150.
- Chisty, Kazi Khaled Shams, Gazi Munir Uddin, and Ghosh, Suntu Kumar, (2007) 'The Business Graduate Employability in Bangladesh: Dilemma and Expected Skills by Corporate World', *BRAC University Journal*, Vol. IV, No. 1, p.7.
- Eurydice, (2008) Higher Education Governance in Europe, Eurydice European Unit, p. 12.
- IUCEA, (2010a) *A Road Map to Quality Handbook for Quality Assurance in Higher Education*, Inter-University Council for East Africa/DAAD Vol.3, p.6.
- IUCEA, (2010b) *A Road Map to Quality Handbook for Quality Assurance in Higher Education*, Inter-University Council for East Africa/DAAD Vol.1, pp.13-14.
- Mason Geoff, Gareth Williams and Sue Cranmer, (2006) 'Employability Skills Initiatives in Higher Education: What Effects Do They Have On Graduate Labour Market Outcomes', *National Institute of Economic and Social Research*, London, p.2.
- Ministry of Education, (2010), *National Education Policy 2010*, Government of the People's Republic of Bangladesh, p.23.
- UNESCO, (2012), *Education and skills for inclusive and sustainable development beyond 2015*, May, p.3.
- University Grants Commission of Bangladesh, (2014a) *Self-Assessment Manual*, Ministry of Education, December, p.3
- University Grants Commission of Bangladesh, (2014b) *Institutional Quality Assurance Cell Manual*, Ministry of Education, August, p.xiv
- Simon Cassidy, (2006) 'Developing employability skills: peer assessment in higher education', *Education + Training*, Vol. 48 Iss: 7, pp.508 – 517.
- Stephenson, (1998) *The Concept of Capability and its Importance in Higher Education*, <http://www.heacademy.ac.uk/>, London, pp. 1-13.
- Stephen Fallows, Christine Steven, (2000) 'Building employability skills into the higher education curriculum: a university-wide initiative', *Education + Training*, Vol. 42 Iss: 2, pp.75 – 83.
- The Economist, (2014)'High university enrolment, low graduate employment', *An Economist Intelligence Unit report for the British Council*, January, p. 8.
- The World Bank, (2002) *Constructing Knowledge Societies: New Challenges for Tertiary Education*, Washington, p.4.
- Washer, Peter, (2007) 'Revisiting Key Skills: A Practical Framework for Higher Education', *Quality in Higher Education*, 13: 1, P.62