



## Competency Based Training and Assessment System for TVET Institutions in Bangladesh

Anwara Hasina

### ABSTRACT

Competency Based Training and Assessment is an approach to Technical Vocational Education and Training that emphasizes the development of skills/competences that are actually required in the world of work. Technical and vocational education (TVET) system is led by the demands of the economy, and aims to transmit society's norms and values intrinsic to the world of work. Despite the depth of the current economic crisis, skills are also claimed to be at the centre of the new challenge of sustaining, accelerating and sharing the signs of economic growth across many parts of the developing world. It should be added, however, that knock-on pressure from primary education expansion, and the urgings of member states are important but not sufficient reasons for the development of a TVET strategy by UNESCO. The organization must also value the intrinsic importance of a TVET strategy, given the vital contribution of skills development in both education and training. For this reason, the organization needs to caution against drivers of TVET that are politically opportune, such as the mantra of skills-for-employment-creation, or skills-for-security. High quality skills are a necessary but not a sufficient condition for the creation of decent work or secure livelihoods. As a tool to support the development of a competent workforce, the NTVQF process has generated enthusiasm amongst stakeholders. However, there is some skepticism about going to scale i.e. full implementation across all occupations, the extent of curriculum development required and the governance of the training and qualifications system across a diversity of institutions. As such, the sustained interest of the government, committed participation of industry and continuation of donor support beyond the pilot phase will be the key to the success of the whole endeavor.

**Keywords:** *Competency Based Training, Assessment, TVET, Bangladesh*

### INTRODUCTION

Competency Based Training and Assessment (CBT & A) is an approach to Technical Vocational Education and Training that emphasizes the development of skills, Knowledge and attitude competences that are actually required in the world of work. In CBT& A, the focus is shifted from inputs into training to outcomes of training and the intended outcomes are derived from the requirements of employment, i.e. Industry Standards. Technical and vocational education (TVET) system is led by the demands of the economy, and aims to transmit society's norms and values intrinsic to the world of work .it is an educational approach which aims to empower the individual to learn specific skills necessary for their role in society and their occupations .specialization occurs, it is closely linked to industry and commerce Knowledge, understanding and skills are those which are important for the world of work. Knowledge is an instrument for attaining economic and social goals, and is necessary for economic well being in its most progressive form it aims to foster attitudes and disposition such as entrepreneurship and enterprise. In its narrowest conception it can mean imparting competence in very specific tasks.

Almost ten years after Seoul and Dakar, there is a new opportunity and a new global context that is refocusing on TVET and skills development. This is clear both in country priorities as well as in the changing priorities of development agencies. The new drivers of skills' policies and strategies are many, but they include the following. The very success of the last decade of supporting universal primary education is translating into huge political pressures to expand both general and technical secondary education. Secondly, good quality skills are increasingly seen as being critical to labor market productivity and competitiveness. Despite the depth of the current economic crisis, skills are also claimed to be at the centre of the new challenge of sustaining, accelerating and sharing the signs of economic growth across many parts of the developing world. It should be added, however, that knock-on pressure from primary education expansion, and the urgings of member states are important but not sufficient reasons for the development of a TVET strategy by UNESCO. The organization must also value the intrinsic importance of a TVET strategy, given the vital contribution of skills development in both education and training. For this reason, the organization needs to caution against drivers of TVET that are politically opportune, such as the mantra of skills-for-employment-creation, or skills-for-security. High quality skills are a necessary but not a sufficient condition for the creation of decent work or secure livelihoods.

### **Competency-Based Training (CBT)**

A trend in education has been the move toward competency or outcomes-based programs of study. This trend seems to be a global initiative, as research investigating and discussing competency-based education comes from all regions of the world. For the purpose of this study, competency-based education is defined as or characterized by a program of study with clearly defined, concrete, measurable objectives of which every student participating in the program must have demonstrated mastery upon program completion. Often these programs also involve students working at their own rate and structuring their own method of learning in order to meet these objectives. Provincial government introduced a new curriculum for elementary school students. This curriculum focuses on measurable competencies that are evaluated for each student in the language arts, mathematics, and science and technology and are consistent at every school throughout the province. In adult technical education, the trend toward competency-based programming has been applauded and urged by a number of interested stakeholders including potential employers, some trade unions, licensing bodies, and some educational institutions. This trend toward competency-based education has been viewed as beneficial for many reasons, including the global standardization and licensing of trades. Competency-based education allows local licensing bodies to assess the skills and abilities of workers coming from different regions, thereby creating more portable workers which is important in the current climate of an expanding global economy. For this reason local and national governments support competency-based education. Business also appears to support competency-based education as it allows them to better understand worker qualifications and hire the most appropriate persons. Additionally, through linkages with educational bodies, skills that businesses need can be incorporated into competency-based programs of study. As do business representatives, some unions feel that competency-based training allows for more equitable matching of education and training with on-the-job needs. During the last century, western education has commonly been based on a standard model which we will refer to as cohort-based. Some characteristics of this model include relatively large numbers of students moving, as a group and at the same rate, through the curriculum, physical facilities, and teachers. This model, which has been frequently used for adult technical education, has implications for administration, evaluation, and learning. Some advantages of this cohort based model include ease of time-tabling as all students in a given cohort are at the same place at the same time. It also facilitates efficient use of teacher time as

one teacher meets the learning needs of a significant number of students simultaneously. Additionally, physical facilities, such as expensive technical shops, are used efficiently in the cohort-based model as many students are using the facilities at one time. There is also evaluation efficiency as tests and exams can be administered in a large group format. However, despite clear efficiency advantages there are also disadvantages to the cohort-based method. As the model is designed specifically to service students in groups, individual learning needs may be neglected. This can be a particular problem, in vocational training, where adult learners bring a wealth of different experiences and skills to the classroom.

In theory, competency-based education better meets individual learning needs. Such a program can be more easily tailored to meet students' strengths and weaknesses with flexibility in determining a student's needs. Students have greater control of the method of learning and the pace at which they learn. Additionally, because evaluation is more individualized, assessment can be more closely linked to what is required, rather than being restricted to easily marked tests. Particularly important, with respect to adult technical education, is the opportunity for students to receive credit for previous experience and knowledge through a prior learning assessment. Despite theoretical arguments, little is known about whether competency-based education does function to provide these benefits. One study, at the community college level in Canada indicates that students view competency-based education positively. However, the limited research available suggests that teacher perceptions of competency-based education have been somewhat negative. Conform reported that teachers experienced pressure to pass students despite questionable student mastery, and that they also experienced difficulty with implementing the competency-based programs due to limited resources. Other criticism of competency-based education includes the artificiality of breaking complex tasks into separate chunks. Argues that operationalizing complex and/or abstract tasks into measurable discrete units can trivialize the craft inherent in many tasks. Additionally, the behavioral nature of competency-based education is viewed negatively as it does not foster the development of broader skills necessary for citizenship. Some authors conclude that competency-based education is likely more suitable for vocational education than for other forms of education such as teacher training. More needs to be known about the effectiveness of competency-based programs for adult technical/vocational education if educational institutions are going to make the expensive shift to this type of program. At present, little research exists on this topic, and to our knowledge no research exist comparing two adult vocational programs designed to deliver the same material using either a competency-based or a cohort-based model. Thus, the purpose of the current study is to compare the perceptions of students in a competency-based pre-apprenticeship Program with those of students in a more traditional cohort-based program in order to determine in what ways the type of curriculum design and delivery influences student learning.

### OBJECTIVE OF THE STUDY

1. To identify the present status of Competency –Based Training System.
2. To know the TVET Institutions in Bangladesh
3. To interpret the effects of CBT & A system adoption on the target social changes.

### METHODOLOGY OF THE STUDY

Correct and smooth completion of research work requires adherence to some rules and methodologies. Rules were followed to ease the data collection procedure. Accuracy of study depends on the information and data analysis.

**Study Design:** The study was survey type.

**Study area:** The study has been conducted in various Technical and vocational institute in Dhaka city

**Sampling Method:** Random sampling method has been used for the study.

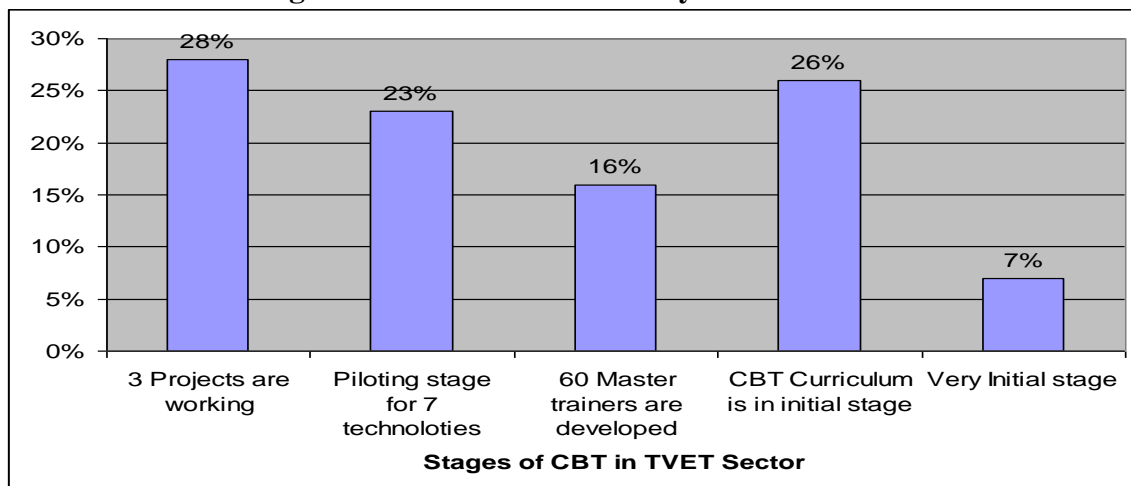
**Sample size:** 500 respondents have been selected from selected institute

**Method of data collection:** Data have been collected from the study area by face to face interview with the respondents.

**Tools for data collection:** Questionnaire has been used for data collection.

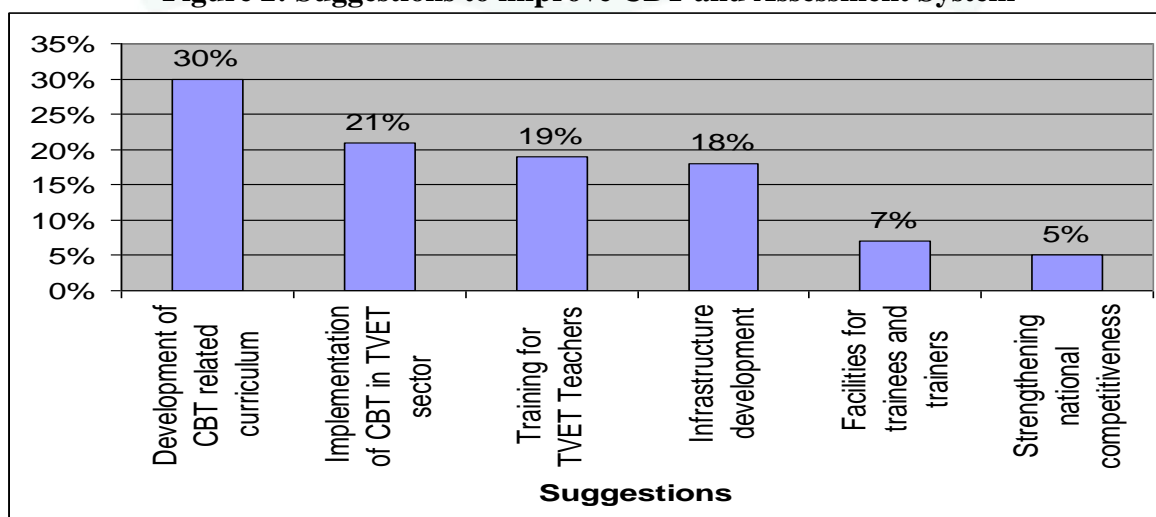
## RESULTS AND DISCUSSIONS

**Figure 1: Status of CBT & A System in TVET**



From the above figure it was found that as a present status of CBT & A, 3 projects working on CBT and Assessment and CBT curriculum is initial stage which was maximum at 28% and very initial stage at 7% which was minimum. Piloting stage for 7 technologies was 23% and CBT curriculum is in initial stage was 26% and 60 master trainers are developed was 16%.

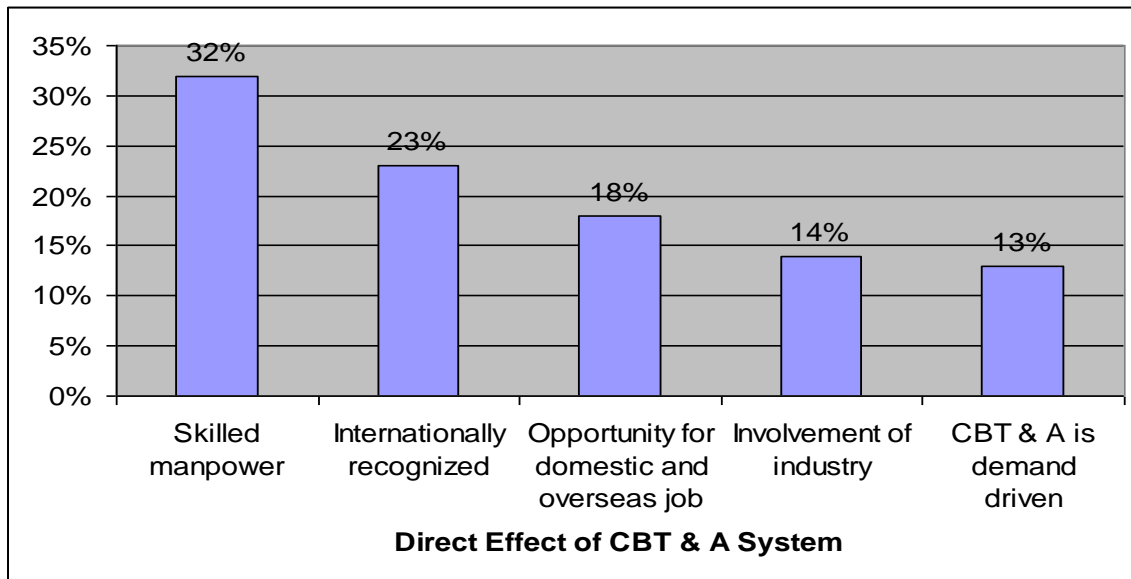
**Figure 2: Suggestions to improve CBT and Assessment System**



From the graph development of CBT related curriculum was maximum at 30% and strengthening national competitiveness was minimum at 5%. Implementation of CBT in

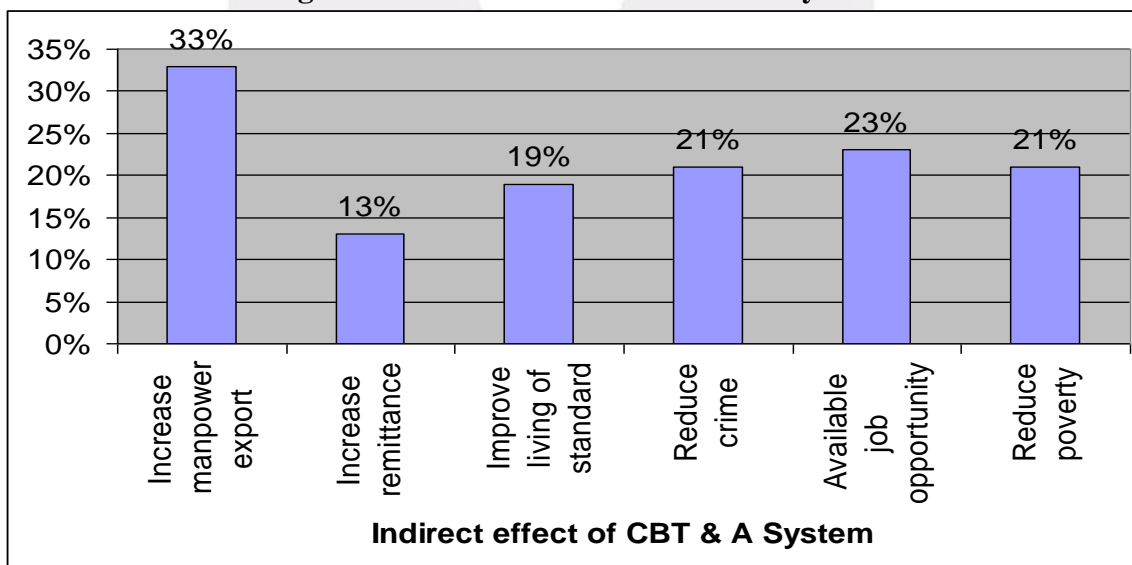
TVET sector was 21%, Training for TVET teachers was 19% Infrastructure development was 18%, Facilities for trainees and trainers was 7%.

**Figure 3: Direct Effect of CBT & A System**



From the graph skilled manpower CBT and Assessment system was 32% which was maximum and CBT and Assessment is demand driven was 13% which was minimum. Internationally recognized was 23%, opportunity for domestic and overseas job was 18% and involvement of industry was 14%.

**Figure 4: Indirect Effect of CBT & A System**



From the figure increase manpower export was 33% which was maximum and increase remittance was 13% which was minimum. Improve living of standard was 19%, reduce crime was 21%; available job opportunity was 23%.

**CONCLUSION**

This outline summary of issues for the UNESCO TVET strategy has covered the crucial normative dimension; the role of new upstream policy analytic work; the concerns with capacity, critical mass and a skills development community of practice; the statistical

challenge; and the relation of these proposals to the draft of the Programme and Budget for 2010-2011. In the resulting UNESCO TVET Strategy, it will be valuable to provide the financial data to illustrate shifts in the skills development budget over the last two biennia and into the next biennium. It may also be possible for the TVET Strategy to review what pattern of TVET/ Skills activities and priorities may be revealed either by the UNESS data or the regional meetings of national commissions of UNESCO. The purpose of this document, in its earlier form, was to afford an opportunity for comment, reaction and critique at the international consultative meeting on technical and vocational education in Bonn in January 2009. The present version has been enriched by commentary at that meeting from individual experts located in development agencies, in academia, in think-tanks and in UNESCO itself. The meeting profited greatly from the experts nominated by member states in UNESCO's Executive Board, and from the particular member state, Germany, that took the initiative in proposing the development of a UNESCO TVET Strategy, - a proposal that generated such widespread support from UNESCO's member states, in both developing and industrialized regions of the world.

In the face of a complex structure of education and technical-vocational training and variable access to TVET, the present NTVQF initiative represents a big step towards TVET reforms to meet national goals of poverty reduction and economic development. As a participatory process, the Bangladesh NTVQF is intended to support a nationally consistent and transparent system for skills training and qualifications that is acceptable for both national and international employment.

As a tool to support the development of a competent workforce, the NTVQF process has generated enthusiasm amongst stakeholders. However, there is some skepticism about going to scale i.e. full implementation across all occupations, the extent of curriculum development required and the governance of the training and qualifications system across a diversity of institutions. As such, the sustained interest of the government, committed participation of industry and continuation of donor support beyond the pilot phase will be the key to the success of the whole endeavor.

## RECOMMENDATIONS

1. Government should train-up administrative people for operative CBT and Assessment programme.
2. Development of National occupational standards, curricula, training materials.
3. Train-up sufficient number of teachers in CBT and Assessment system
4. Training facilities of institutes should be increased
5. Public awareness should be increased particularly why CBT is important for enhancing employment opportunities
6. Job market requirements should be scanned regularly to improve the linkage between industries and TVET institutions.
7. Every TVET institutions should have enough laboratory/workshop equipment.

## REFERENCE

1. ADB (Asian Development Bank). 2008. BANGLADESH: Skills Development Project (Project Administration Memorandum), Dhaka: ADB.
2. ADB (Asian Development Bank). 2007. Technical Assistance Consultant's Report, Project Number: 39408, ADB PPTA 4799 Ban, Skills Development Project, Final Report.
3. Arthur, John. 2009. Recognition of Prior Learning (Draft Interim Report), EC-ILO TVET Reform Project, Dhaka: ILO (International Labour Organization).

4. Bangladesh Bank. 2008. Recent Employment Situation and Labour Market Developments in Bangladesh. Policy Paper: 0807, Policy Analysis Unit, Dhaka.
5. Barua, et.al. (2007). Determinants of Workers' Remittances in Bangladesh: An Empirical Study, Dhaka: Bangladesh Bank, Policy Analysis Unit.
6. BBS (Bangladesh Bureau of Statistics). 2008. Household Income and Expenditure Survey 2005, Dhaka: Planning Commission, Government of the People's Republic of Bangladesh.
7. BBS (Bangladesh Bureau of Statistics). 2008. Key Indicators on Report of Sample Vital Registration System 2006 & 2007, Dhaka: Planning Commission, Government of the People's Republic of Bangladesh.
8. BBS (Bangladesh Bureau of Statistics). 2008. Labour Force Survey, 2005-06, Dhaka: Planning Commission, Government of the People's Republic of Bangladesh.
9. BBS (Bangladesh Bureau of Statistics). 2009. Statistical Pocket Book of Bangladesh 2008, Dhaka: Planning Commission, Government of the People's Republic of Bangladesh.
10. BTEB (Bangladesh Technical Education Board). 1996. The Challenge of TVE for Human Resource Development: Policy Planning Strategy, Dhaka.
11. BTEB (Bangladesh Technical Education Board). 2008. Annual Report 2007-2008, Dhaka.
12. BTEB (Bangladesh Technical Education Board). 2006. Annual Report 2005-2006, Dhaka.
13. Comyn, P. 2009. Review of the Structure & Coordination of TVET in Bangladesh, TVET Reform Project, Dhaka: ILO.
14. Das, Hari, P. 2007. A Study of Curriculum Development and Implementation of Secondary Level Vocational Education in Bangladesh, Dhaka: National Academy of Educational Management (NAEM).
15. GoB (Government of Bangladesh). 1997. The Fifth Five Year Plan 1997-2002, Dhaka: Planning Commission, Government of the People's Republic of Bangladesh.
16. GoB (Government of Bangladesh). 2003. 'Learning for Change: Education for All National Plans of Action (NPA II) 2003-2015, Dhaka: Ministry of Primary and Mass Education.
17. GoB (Government of Bangladesh). 2004. Agrabatir Teen Bachhar, Dhaka: Social Welfare Ministry, Government of the People's Republic of Bangladesh.
18. GoB (Government of Bangladesh). 2005. Learning for Change: Education for All National Plan of Action (NPA II) 2003-2015, Dhaka: Ministry of Primary and Mass Education, Government of the People's Republic of Bangladesh.
19. GoB (Government of Bangladesh). 2007. 'Unlocking the Potential: National Strategy for Accelerated Poverty Reduction (NSAPR)', Dhaka: General Economics Division, Planning Commission, Government of the People's Republic of Bangladesh.
20. GoB (Government of Bangladesh). 2008. Moving Ahead: National Strategy for Accelerated Poverty Reduction II (FY 2009-11), Dhaka, Planning Commission, Government of the People's Republic of Bangladesh.