

Reprint

ISSN 1997-2571 (Web Version)

# Journal of Innovation & Development Strategy (JIDS)

(*J. Innov. Dev. Strategy*)

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Volume: 7

Issue: 1

April 2013

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*J. Innov. Dev. Strategy 7(1): 45-49 (April 2013)*

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JIDS\*\* issn 1997-2571, HQ:19-10 central place, saskatoon, saskatchewan, s7n 2s2, Canada

## TECHNICALITY AND ACADEMIC STATUS OF TEXTILE VOCATIONAL EDUCATION CURRICULA IN BANGLADESH

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Accepted for publication on 10 March 2013

### ABSTRACT

Hossain M, Khalifa A, Azad AKMF (2013) Technicality and academic status of vocational textile education curricula in Bangladesh. *J. Innov. Dev. Strategy*. 7(1), 45-49.

Investigation works were performed on the technical curriculum and course related academic status of textile vocational education in Bangladesh with the objectives of knowing the technical content and its operational constraints. The research works were conducted through a questionnaire involving including instructors, students and managers. The results obtained from the studies indicated that technicality of the curricular content status of the textile vocational education index was 26.3 percent, while the Asian standard for this specific level of education was stated to be 46.4 percent. The causes for such a poor situation were mostly related to the more intrusion of non-technical courses in the name basic science, language and social inputs. The significant changes to be done as per findings of these studies on vocational and technical textile education in Bangladesh that the technical contents should be increased maintaining a ratio of Technical: Non-technical content being nearly 65:35. The Theory and Practical classes for each courses or subjects/disciplines must be specified in the curriculum.

**Key words:** textile vocational education, theory practical ratios, modular curricular systems

### INTRODUCTION

Curricular base foundation for the Textile Education in Technical Sector before independence but it was strengthened during 80's, that still under improvement and diversification. But the disciplines of the sector including Textile have developed only recently. The curriculum is prepared considering that the sectors of vocational education were related to age-old apprenticeship system of learning. Apprenticeships are designed for many levels of work from manual trades to high skill works. However, as the job market becomes more specialized and economies demand higher levels of skill, governments and businesses are increasingly investing in the future of vocational education through publicly funded training organizations and subsidized apprenticeship or traineeship initiatives for businesses. It may be mentioned here that the concept of vocational education and training had been conceived long before in the Indian Sub-continent, work-based teaching was imparted at school level in Dayalbagh. Few Industries was Model set up in Dayalbagh before 1920 provided training according to individual jobs demands. Bangladesh was also in need of such education and practical training for national development.

Recently in this regard several researchers worked on the technical and textile vocational education system in Bangladesh who tried to identify the weak points of the present system (Azad *et al.* 2012; Hossain *et al.* 2012; and Khalifa *et al.* 2012). Vocational Education and Training describes comprehensive system of education and training and recognized the pivotal objectives of job creation as immediate needs. It was stated to be an integral component of life-long learning and as such plays a crucial role in helping individuals for achieving a culture of peace environmentally sustainable development and international citizenship. The education is stated by Sharpe (1993) and OECD (2009) to be entangled with livelihood profession asking questions about it. The Dayalbagh Technical College as historically analyzed and projected outcomes by Connor and Trussell (1987); has the potentiality of becoming a unique institution in the province being an institution where all students can live and learn together under ideal conditions and become skilled workmen of high caliber. As per records and research reports by Buzzell (1987) and Brodhead (1991) textile education and training were started in 1910 in India with weaving schools. Name of the course was textile artisan.

Another Technical Schools were started in the year 1927 to train in the electrical and mechanical engineering skills. Dayalbagh Technical College, is presently running a number of one-year Certificate Programs for boys and girls which include- garments, electrician, fitter, designing, office management, mechanic textile dyeing and printing. At present vocational courses available abroad specially in countries similar to Bangladesh are conducted by Vocational Schools, University Training and Retraining for widening participation. The courses include: Agricultural Education, Apprenticeship, Community College, Employability, and Environmental Education. The current trend courses consist of Family and Consumer Science, Finishing School, Further Education, Life Skills, and Renewable Energy. It is found that all these activities are formulated and implemented following at least through a outlined curriculum in most countries (Shields 1989). In the context of the above discussion the present situation, a research program was formulated with the objective to know the status of technical and academic status of textile vocational education in Bangladesh, and to identify the curricular problems assessing the potential aspects for improving the quality of the education.

**MATERIALS AND METHODS**

The approach methodology formulated for the research as per applied education research outlines suggested by Anon. (1997) and Australian OECD (2002) workers. Thus questionnaires were developed and pre-tested before starting the research works. The studies included i. direct survey through a questionnaire ii. Focus Group Discussion (FGD), and iii. conducting case studies for making profiles individual institutes as regards technical textile education academics.

Sampling population: Textile vocational institute covering superintendent Teachers/Instructors, Academic personnel and Students.

Questionnaire Guideline consisted characteristics of the respondent: Persons having experience of >1 courses from certificate to post graduation (teacher) were given preference. The investigation covered i. current status of curriculum ii. comparative curriculum status, iii. comparative syllabus status, iv. presence and use of laboratories and workshops, and related others.

**RESULTS AND DISCUSSION**

The results obtained from the studies as per objectives are presented and discussed in this chapter under the objectively selected following three major headlines: textile Vocational Level Education as Curricular Status and major problems and recommendations.

**Distribution of Courses**

The main curriculum and syllabus of the Textile Vocational Education are studied and reported in the forms of: Terms: of varied duration: TERMS: I, II, III, IV, up to VIII+. The courses were categorized as Core Courses, Optional Courses, Basic Science Courses, Language Courses, and Supplementary Courses.

**Vocational-Terms/Months/Quarters Years –T1- up to T8**

The results given in the Table 1 show the differences among the courses and its parallel distributions and deviations.

**Curricular status as per course distribution**

The results obtained on the issues of knowing the Curricular Status show that the distribution of the courses were found to be irregular indicating that the technical curricular status was not academically adjusted. This type of limitations were studied and reported by Azad *et al.* (2012), Hossain *et al.* (2012) and Khalifa *et al.* (2012) while they were working with the vocational, Diploma and Graduate level textile Engineering Education in Bangladesh. The results of the resent research findings in this regard are given in Table 1 and illustrated in the Fig. 1 and Fig. 2. The results indicate that only a few interactions were made during preparation of the curriculum in a non-modular approach system. The share of the technical content of the courses was only percent which do not reflect the sufficient technical nature of the education.

Table 1. Total content and distribution of the technical courses

Items	Cumulative responses
Core	493
Basic Science and Language	604
Optional	710
Total	1808

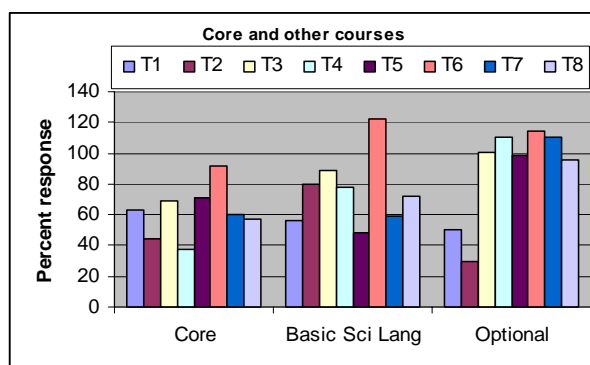


Fig. 1. Core and other course proportions

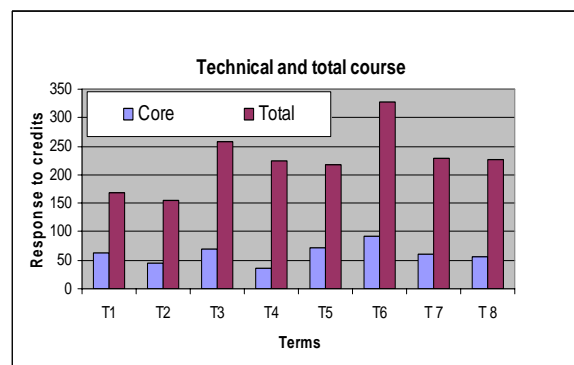


Fig. 2. Technical and total course proportions

**Curricular deviations those need changes**

The results obtained on the graphs curricular features given in the Fig. 1 which show that the course wise distribution at different terms varied significantly. Among the courses the basic and language subjects were

found to be very weak as regards student’s competency is concerned. More over the preliminary courses need immediate evaluation considering the weakness of the students.

The technical content of the existing curriculum during second half of the curriculum show that the basic science and language courses were given at the later stages (Figs. 3-5), but it should be concentrated in the earlier stage of the education.

**Cumulative responses on the courses**

The Cumulative responses on the courses for the first and second half of the course duration show that the course of the second half was much more voluminous specially of the basic science and language courses. According to these findings as given in the Fig. 3, it is suggested that the basic science and language courses should be reduced increasing core course with more technical contents to enhance the skill of the learners.

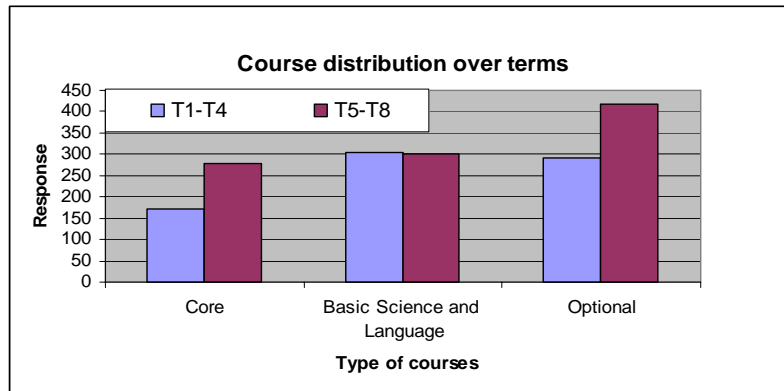


Fig. 3. Core technical course proportions during initial terms

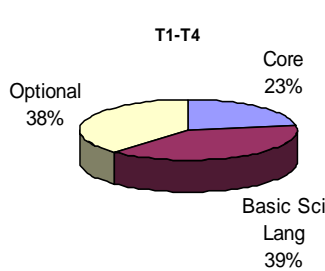


Fig. 4. Core technical course proportions during initial terms

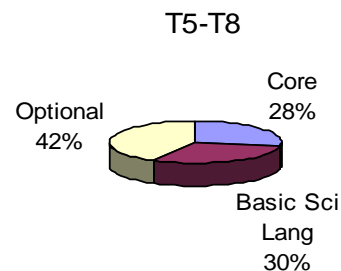


Fig. 5. Core technical course proportions during later terms

**Response on the specific courses**

The Response of the interviewee on different courses was found to be different. According to the results maximum concerns as depicted (Fig. 3) on core subjects being 474 person questions, the basic science being minimum as 229. The results (Table 2 and Figs. 4-5) on suggestions and recommendations indicate that most of the respondents were aware of the deficiencies of the curriculum and syllabus both on written papers and its implementation status and at the initial stages and later stages terms. There were so many anomalies were also found in the optional and follow up supplementary courses at the later and early semesters respectively as induced by the individual teachers.

Table 2. Suggested distribution of the courses

Items	T1-T4	T5-T8
Core	293	320
Basic Science and Language	243	301
Optional	271	369
Total	807	990

**Suggestions for Curriculum changes**

The responses given in terms of recommendations for technical changes show 29-37% change of the overall curriculum of core skill development subjects are needed. The other subjects should be adjusted as per revision of the core subjects. Physics, computer and math syllabus should be integrated during the first half of the courses giving academic examples mentioning textile concerns considering its syllabus set for Diploma courses,

so that they can qualify for directly entering in to these degrees. The term based technical academic course distribution recommendations are given in the Figs. 5-7. The variations were suggested to be 30-38%, which was found to be currently 22-48% and as may be stated as of non-academic nature.

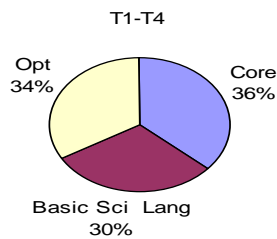


Fig. 6. Suggested distribution of technical 1-4 term courses

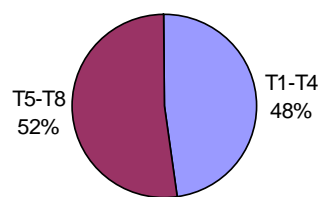


Fig. 7. Suggested distribution of technical 5-8 term courses

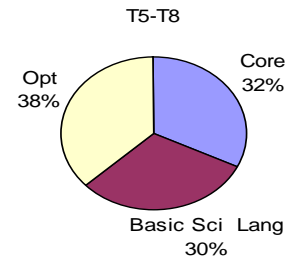


Fig. 8. Suggested distribution of technical courses

Curricular base foundation for the Vocational Education in Technical Sector initiated before independence but it was strengthened during 80's, which is still under improvement and diversification. But the disciplines of the sectors including Textiles has emerged and developed only recently. Vocational education and training of the polytechnic education has been linked to certificate level backup linkage and diploma as future prospect. In that sense it is now occupying the entry position in technical education having the scope of getting mass level employment domestic and abroad being more important in the textile sectors. It is to be said that the quality of the vocational graduates significantly depends on the open-to-all curriculum and syllabus they follow and thus the skill they achieve. Vocational education is related to the age-old apprenticeship system of learning. Apprenticeships are designed for many levels of work from manual trades to high knowledge work.

Vocational textile education has diversified over the 20th century and now exists in Industries such as Retail merchandizing, Information Technology, etc services as well as in the traditional craft textiles and cottage industries. However, as the labor market becomes more specialized and economies demand higher levels of skill, governments and businesses are increasingly investing in the future of vocational education through publicly funded training organizations and subsidized apprenticeship or traineeship initiatives for businesses. At the post-secondary level vocational education is typically provided by an Institute of Technology, or by a local Community College.

## CONCLUSION

The significant changes were required to be done as per findings of these studies on Vocational and Technical Textile Education in Bangladesh. Evaluation through examination should be specifically explained and described in detail. The Theory and Practical class must be specified in the curriculum. The syllabus of the core subject credits must be revised for increasing credibility of the learners as per need of the job providers and making them skilled for forward diploma graduation. The major recommendations suggested by the respondents were to strengthen technical teaching, improved laboratories and workshops. The syllabus of the core subject should be modernized immediately. The whole curriculum should be in a technical modular structure based on skills standards endorsed by garment industrial sectors of Bangladesh. Practical exercise classes need to be strengthened establishing laboratories and workshops. Syllabus and curricula should be need based demand. Number of textile technical teachers with international training background needed to be enhanced immediately. Evaluation of students through examination should be described in detail.

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