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## STUDIES ON THE CURRICULUM AND SYLLABUS RELATED PROBLEMS OF TEXTILE DIPLOMA EDUCATION IN BANGLADESH

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### ABSTRACT

Khalifa A, Hossain MM, Azad AKMF (2012) Studies on the curriculum and syllabus related problems of textile diploma education in Bangladesh. *J. Innov. Dev. Strategy*. 6(2), 73-76.

A study was conducted on the curriculum and syllabus related problems of textile diploma education in Bangladesh. The major objectives of the research were to know the curricular status of Diploma Textile education in Bangladesh assessing the curricular features and to identifying the problems in the way of its necessary improvement of the graduates and to meet the countries demand. The research works were performed through a questionnaire based direct survey, Focus Group Discussion (FGD) and conducting case studies making facility profiles individual Institutes. There were 5 key questions which were scored in a 0-10 scale about the status as lowest and highest respectively for purpose of its quantitative analysis and interpretation. The major findings as problems identified were serious limitations as the curriculum was concerned. Practical classes and skills utilized were less than the requirement. Involvement of textile teachers and employers in curriculum development were not sufficient. It is recommended that the present curriculum for Textile Diploma Education need immediate revision according to employers job specifications and market demand. The Theory and Practical class/credits/periods must be specified in the curriculum both as per courses and semesters along with evaluation systems to be followed. The syllabus of 3<sup>rd</sup> and 4th semester of core and additional course credits need to be updated as to increase the credibility of the graduates to the employers and make the graduates career open for higher studies. The whole curriculum should be in a comprehensive modular format and should duly be approved by Bangladesh Technical Education Board for technical content and National Curriculum and Textbook Board Ministry of Agriculture for keeping uniformity with other education streams. It is very much recommended to maintain functional and responsive partnership between Commercial Industries and Technical Education Institutes in the process of developing curriculum and employment of the graduates.

**Key words:** *textile diploma technical education, curriculum development*

### INTRODUCTION

Technical education is the most powerful instrument to economic prosperity of developing countries (OECD 2002; 2006; 2007). In the canvas of the global technical developing trend, the overall national development of all countries greatly depends upon the expansion of technical and vocational education as stated by Owen in 1912 and still emphasized by Buzzell (1987) and OECD (2007). It plays vital role in reformulation and re-organization the socio-economic structures of the country. There are three levels of technical education in Bangladesh. These are: first, Degree level, for producing engineers or technologist. Second, Diploma level for producing mid-level technicians. Third, Certificate level for producing skilled workers i.e. called vocational graduates. The Diploma holders play an important role as an intermediary link between the engineers and the certificate graduates. They works in floor level and supervise their work for a successful end. Textile Diploma curriculum Initiated in Bangladesh 1992 which is still now improving under several projects of national and international capacities. Current textile curriculum evaluations identified so many limitations as per its academics and administration. Thus the present research was formulated to study the limitations of Textile Diploma education as regards the curriculum and syllabus is concerned. According Wolf (2002) to the textile industry is now state of rapid and revolutionary modernization and automation in the world. The engineers graduated in Textile Engineering are equipped with the knowledge skill of the behavior of textile materials and the functions of machinery in textile and clothing and related service technologies. Textile Engineering deals with the application of scientific and engineering principles to the design and control of all aspects of fiber, textile, and apparel processes, products, and machinery (Sharpe 1993). These include natural and man-made materials, interaction of materials with machines, safety and health, energy conservation, and waste and pollution control.

There are several Textile Institutes in Bangladesh. The other name of the institutes is Institute of Textile Engineering and Technology (ITET). After passing the SSC equivalent Exam students are applied to admission here. The students of Textile Vocational Institute (TVI) get 30% quota to admission here. And the general students those who come from general High School they should have to Science background or equivalent. A brief of the Textile Education in the country reveal that there are so many courses in the European countries (Reeves 2006) which may also be initially followed in our country. Thus the courses may be selected from: Advance Diploma in Textile Design, Computer Aided Textile and Garment Designing, Diploma in Dress Designing, Diploma in Garment Fabrication Technology, Diploma in Garment Manufacturing and Merchandising, Diploma in Garment Technology, Diploma in Packaging Technology, Diploma in Textile Design, Diploma in Textile Manufacture, Diploma in Textile Processing, Diploma in Traditional Textiles and Crafts, Diploma in Textile Technology, and Fashion Technology. They are employed in departments of textile plants and companies varying from small to big scale, i.e., production, planning, quality control, sales or

marketing or in agencies of domestic or foreign companies for textile products and textile machinery, concentrated in different regions of the country. The academics and related elements may be described as below.

Academics: Diploma in Textile Engineering is 4 year long program consisting of 8 semesters (1 Semester = 6 months). The final and the midterm exams of each semester is conducted under the supervision of Bangladesh Technical Education Board (BTEB). All the exams question, answer script checking and final results are published by the BTEB. Beside this each student has to attend the regular class test, quiz test and semester final project. After the successful completion, a student will receive a Diploma in engineering certificate from BTEB. The Admission procedure starts after the SSC results. There is mainly one session in a year. Students have to follow the admission announcement which is given by the Bangladesh Technical Education Board Authority. Textile Engineering can work as: Process Engineer, Quality Control Supervisor, Technical Services/Sales Manager, Operations Trainee, Process Improvement Engineer, and Medical Textiles Engineer. In the context of the above discussion the present research program was formulated with the following major objectives: i. to know the curricular status of Diploma Textile education in Bangladesh, ii. to assess the curricular features of Diploma Textile Education, and iii. to identify the problems of Diploma Textile Education in Bangladesh.

## MATERIALS AND METHODS

The classical methodological approach frequently utilized and recommended (Anon. 1997) was followed in the resent study. The methods followed for the were mainly: Direct survey through a questionnaire, Focus Group Discussion (FGD) and conducting case studies making profiles individual institutes. The sample population was Textile Engineering Institute (Private and Govt.) - 20 and number of respondents-130. The respondent groups were Teachers/Instructors-80, Academic Administration-20, and Students were-30.

**Questionnaire Guideline:** The personal and institutional characteristics of the respondents were recorded in detail including personal identity, courses passed, qualification, training and experiences. Persons having experience of >1 courses from certificate to post graduation will be given preference.

The major questions were in total 5 which were scored in a 1-9 scale about the status as lowest and highest respectively. The questions were: What is the current status of textile education curriculum in Bangladesh? Which curriculum is comparatively better? Which syllabus is comparatively better? Which of the following courses have laboratories/workshops? Which of the following courses have examination? Write good, medium and poor. The collected data were then checked for intra question verification and then analyzed to get the results as per objectives.

## RESULTS AND DISCUSSION

The results obtained from the studies as per objectives are presented and discussed under the objectively selected following three major headlines including curricular status and major problems and solutions.

### Curricular Status

The main curriculum and syllabus of the Diploma Technical Education are studied and reported in the forms of Semester 1 to 8. The courses were categorized as i. Core Courses, ii. Optional Courses, iii. Basic Science Courses, iv. Language Courses, and v. Supplementary Courses.

### Diploma-Terms/Semester/Yr –1-8.

The results given in the Table 1 and Fig. 1 here showed significant differences among the courses and its vertical semester based distributions. This type of erratic distribution of contents over semester was reported (Shields 1989, OECD 2006). to be unfavourable for a good curriculum.

Table 1. Percent response for changing the parallel and vertical distribution of the courses

Semesters	1	2	3	4	5	6	7	8
Core Courses	23	44	59	67	51	72	60	58
Optional Courses	32	27	49	46	58	62	57	48
Basic Science Courses	27	31	34	26	20	15	25	21
Language Courses	29	19	23	42	28	22	14	21
Supplementary Courses	65	63	62	54	41	52	63	48

**Current status and changeable needs**

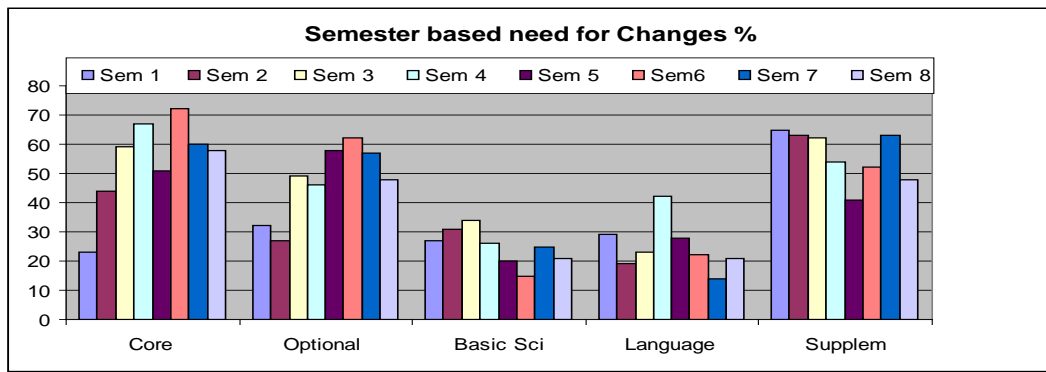


Fig. 1. Responses for percent curricular changes as per vertical semesters

The Fig. 1 illustrated above on the current status and need changes as per semester bases show that the supplementary and core disciplines need maximum changes being 71.4% response at different semesters. However the basic science and language courses were responded to be comparatively satisfactory. There were also found so many anomalies in the optional/supplementary courses at the later and early semesters respectively and it was reported to be induced by the individual subject teachers.

The results given in the Fig. 2 indicate that courses needing revision were found to be 23-27% for additional courses as highest. But the deviations of the courses in the core subjects (26) were found to be more important for quality education.

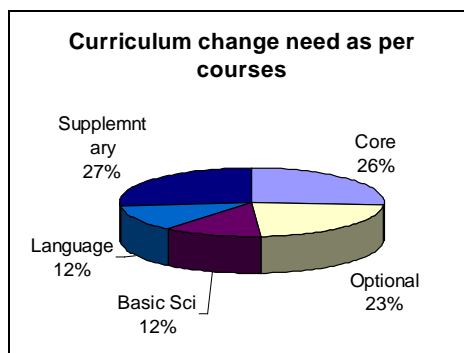


Fig. 2. Mean per cent changes needed as per subject groups

**Curriculum Revision Status**

The obtained on the revision requirement of the courses are given in the graphs Fig. 3. According to the results the courses needing revision as per semester was highest need for changes were found to be 13% and 14% in the 3rd and 4th semester respectively.

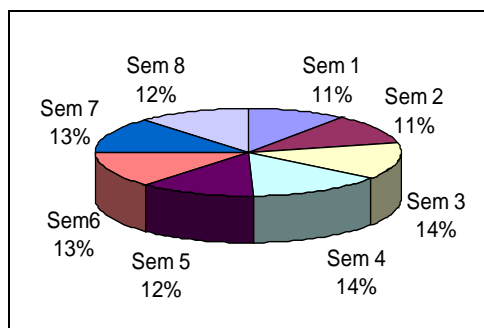


Fig. 3. Mean per cent changes needed as per semester

The features of the curriculum studied as per its quality were measured in the forms of credit/marks distribution, theoretical and practical rations and evaluation systems. The results given in the graph above show that the objectives of the was satisfactory, but other parameters as mention here were mostly poor.

The results given graph on the features of the curriculum in percentage form show that about 30% were in the satisfactory grade which is inadequate according to even Asian standards (NZ- >50%). It should be treated as major sector for improvement in our newly emerging Textile Education.

## CONCLUSION

The major problems identified from the study on Textile Education Status in Bangladesh may have so many limitations as the curriculum is concerned. Practical classes were less than requirement due to shortage of laboratories/workshops. Involvement of textile teachers and employers in curriculum development were not sufficient. Even the curriculum and syllabus as a written document were not available with many concerned persons. The skill of the practical class instructors was found to be weak. Examination features were not detailed or the examiners were not bounded clearly by prequalification. It is recommended that the present curriculum for Textile diploma education should be updated according to employers and market demand. The Theory and Practical class/credits/periods must be specified in the curriculum both as per courses and semesters along with evaluation systems. The syllabus of 3<sup>rd</sup> and 4th semester for both core and additional course credits need to be revised as to increase the credibility of the graduates to the employers and make the graduates career open for higher studies. The whole curriculum should be in a comprehensive modular format and should duly be approved by Bangladesh Technical Education Board, MOA. It is very much necessary to establish partnership between Commercial Industries and Technical Education Institutes in the process of developing curriculum.

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